

Parc Cybi, Holyhead

Final Report on Excavations

Volume 1: Text and plates



Llywodraeth Cymru
Welsh Government



Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust

Parc Cybi, Holyhead

Final Report on Excavations

Volume 1: Text and Plates

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Cover photographs: Topsoil stripping starts at Parc Cybi

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PARC CYBI, HOLYHEAD (G1701)

FINAL REPORT ON EXCAVATIONS

Event PRN 45467

Contents

List of Tables	i
List of Figures.....	i
List of Plates	v
SUMMARY	1
CRYNODEB	2
INTRODUCTION	3
Presentation of Radiocarbon Dates.....	4
The use of Welsh and English placenames	4
Archive	4
Acknowledgements	5
Background	6
Topographic background	6
Geology	7
Archaeological and historical background	9
Project background.....	15
AIMS AND OBJECTIVES.....	16
EXCAVATION METHODOLOGY	17
EXCAVATION RESULTS	19
Introduction.....	19
Mesolithic	19
Early Neolithic	20
Early Neolithic rectangular timber building (PRN 31570)	20
Temporary Early Neolithic Occupation sites.....	38
Later Neolithic	44
Classic pit clusters	44
Other sites with Middle or Late Neolithic pottery	49
Interpretation of Middle and Late Neolithic pit groups.....	53
Late Neolithic and Beaker Period Burnt Mounds.....	54
Large burnt mound (PRN 31582).....	54
Small Burnt Mound (PRN 31583).....	58
Other possible burnt mound troughs and earth ovens	61
Bronze Age.....	63
Ceremonial complex in Areas M2 and M4.....	63
The Tŷ Mawr Standing Stone (PRN 2501)	84
Timber roundhouse and other features in K1 (PRN 31588).....	86
Possible Bronze Age Settlement in Area J.....	90
Pits in H/IB cable trench (PRN 31575)	96
Iron Age	98
Roundhouse Settlement, Areas B2 and F1 (PRN 14599).....	98
Area north-west of roundhouse settlement.....	153
Field boundaries to the south-east of settlement (PRN 31594)	157
Pits and related features in Area I (PRN 31598)	158
Iron Age roundhouses in Area K (PRN 31595).....	160
Area K5 and the potential of another roundhouse settlement (PRN 14602).....	172
Roman period.....	174
Building complex in Area K9 (PRN 31596)	174

Trackway and possible field system (PRN 31597).....	193
Long cist cemetery (PRN 31600)	198
Early Medieval.....	208
Corn dryers	208
Post-medieval.....	214
Introduction	214
Farmsteads	214
The field system	233
Culverts and drainage	236
Small enclosures	240
Other post-medieval features.....	242
ARTEFACTS	244
Artefact Processing Methodology	244
Prehistoric pottery	244
Cheshire Salt Containers	258
Roman pottery	259
Medieval pottery.....	259
Post-medieval pottery and glass	260
Roman Glass.....	261
Knapped stone	263
Other worked stone.....	266
Spindle Whorls and Perforated Weights.....	272
Metal objects.....	281
Special Objects	281
Archaeometallurgical residues.....	287
ENVIRONMENTAL DATA	289
Studies of the marshes and pollen analysis	289
Charcoal and charred plant remains	292
Animal Bone.....	297
Human bone.....	298
Soil micromorphology	299
Potential quarrying	300
DATING.....	300
DISCUSSION	314
Landscape	314
Reconstructing the past environment	316
Mesolithic	318
Neolithic	318
Bronze Age	326
Iron Age	333
Roman Period	350
Medieval	359
Post-medieval	362
CONCLUSION.....	365
REFERENCES	366
Maps	366
Bibliography	366
Online	393
Appendix I: List of sites registered in the HER for Holy Island	395
Appendix II: List of sites within Parc Cybi	401
Appendix III: Table of Radiocarbon Dates	415
Appendix IV: Table of roundhouse diameters from sites on Anglesey.....	421

List of Tables

Tables are located in this volume.

- Table 1. Radiocarbon dates from the Early Neolithic Building and adjacent features
- Table 2. Radiocarbon dates from the Neolithic occupation site in Area E
- Table 3. Radiocarbon dates from Pit Group PRN 31527
- Table 4. Radiocarbon dates from Pit Group PRN 31573
- Table 5. Radiocarbon dates from Late Neolithic hut PRN 31574
- Table 6. Radiocarbon dates from pits 70503 and 70529 (PRN 74832)
- Table 7. Details of radiocarbon dates from the buried soil and marsh edge in Area F1
- Table 8. Radiocarbon dates from the clay-walled roundhouses in Area K7 (PRN 31595)
- Table 9. Radiocarbon dates from corn dryers on Parc Cybi
- Table 10. Summary of the location of spindle whorls at Parc Cybi
- Table 11. Iron Age and Roman period sites with spindle whorls in north-west Wales
- Table 12. Dates from features with Middle and Late Neolithic pottery in Wales
- Table 13. Bronze Age radiocarbon dates from Meyllteyrn Uchaf (Ward and Smith 2001, 35)
- Table 14. Internal diameters of the roundhouses in Areas B2 and F1 at Parc Cybi
- Table 15. Clay-walled roundhouses in north-west Wales based on data summarised by Hedges (2016, 130-132) with additional sites
- Table 16. Early medieval cemeteries and graves on Anglesey
- Table 17. Dates from corn dryers in north-west Wales

List of Figures

Figures are located in volume 2

- Figure 1. Topography and geology: location and relief of Holy Island with geological map of bedrock from Geology of Britain Viewer (British Geological Survey)
- Figure 2. Prehistoric sites on Holy Island with PRNs
- Figure 3. Iron Age and Roman sites on Holy Island with PRNs
- Figure 4. Medieval and selected later sites on Holy Island with PRNs
- Figure 5. Extracts of 16th, 17th and 18th century maps showing Holy Island and the crossings to it
- Figure 6. Areas and sub-areas of Parc Cybi and their status
- Figure 7. Location of prehistoric, Roman and medieval sites on Parc Cybi with PRNs (see appendix II for list of sites)
- Figure 8. Location of post-medieval sites and field systems on Parc Cybi with PRNs (see appendix II for list of sites)
- Figure 9. Plan of feature 50412 containing Mesolithic finds (PRN 31627) with inset showing location of Mesolithic finds across the site
- Figure 10. Detailed plan of the Early Neolithic building (PRN 31570), with an inset showing the stones in the fills of features 50092, 50120, 50167 and 50179
- Figure 11. Interpretive plan of the Early Neolithic building and associated features
- Figure 12. Sections of aisle postholes in the Neolithic building
- Figure 13. Sections of fire pits in the Neolithic building
- Figure 14. Sections of postholes in the Neolithic building
- Figure 15. Sections of pits and other features in the Neolithic building
- Figure 16. Pits and other features to the north of the Early Neolithic building including feature 50010 that contained a cannel-coal bead (sf1073), with inset section of posthole 50010
- Figure 17. Plan of Area H showing possibly prehistoric features (features mentioned in text labelled with context numbers)
- Figure 18. Distribution of finds in the Early Neolithic building
- Figure 19. Comparison of the Parc Cybi building with those from Llandygai near Bangor
- Figure 20. Natural hollow in Area E (PRN 18406) showing the location of features indicating temporary occupation
- Figure 21. Detailed plan of activity in the hollow in Area E (PRN 18406) with finds distribution
- Figure 22. Excavated features in Area M with inset of pottery from pit 40079
- Figure 23. Sections of selected pits and postholes in Area M
- Figure 24. Location plan of pits in Area I, with inset plans and sections of features 19075 and 21037
- Figure 25. Plan of pit group PRN 31572 with finds distribution

Figure 26. Sections of pits in group PRN 31572

Figure 27. Pit group in Area K9 (PRN 31573) with other nearby early features

Figure 28. Selected sections of the pit group in Area K9 (PRN 31573) and nearby prehistoric features

Figure 29. Pit group in Area D (PRN 31574), with selected sections inset

Figure 30. General location of features in Area J

Figure 31. Plan and sections of pits 70168, 70173 and 70181 (PRN 74831)

Figure 32. Plan and sections of pits 70529 and 70503 (PRN 74832)

Figure 33. Sections of burnt mound PRN 31582 with inset showing extent of mound and location of main sections

Figure 34. Plan of features under the burnt mound PRN 31582 with sections of troughs

Figure 35. Section through recut well (group 31303)

Figure 36. Plan and sections of burnt mound PRN 31583 and nearby features

Figure 37. Plans and sections of earth ovens PRN 31584, 31585 and 31586

Figure 38. Plan and sections of possible burnt mound pits PRN 31587

Figure 39. Cist cemetery/multiple cist barrow in Area M4 (PRN 31589)

Figure 40. Selected sections and profiles through the cists

Figure 41. Plan of D-shaped enclosure (PRN 31591), showing stone deposits in the fill

Figure 42. Plan of D-shaped enclosure fully excavated with inset showing the changing form of the monument

Figure 43. Sections through D-shaped enclosure and related features

Figure 44. Plan of ring ditch PRN 31590

Figure 45. Sections across ring ditch

Figure 46. Location of Tŷ Mawr standing stone (PRN 2501) and surrounding features

Figure 47. Resistance survey around the Tŷ Mawr Standing Stone by Geophysical Surveys of Bradford (from Ovenden 1990b)

Figure 48. Excavated features in Area K1

Figure 49. Detailed plan of timber roundhouse (PRN 31588) and nearby pits with selected sections

Figure 50. Bronze Age and other possibly prehistoric features in Area J

Figure 51. Plan of posthole group PRN 31576 with selected sections

Figure 52. Plan of posthole group PRN 31581 with selected sections

Figure 53. Plan of four-post structures and related features (PRN 31577) with selected sections

Figure 54. Plan of possible structures and related features (PRN 31578) with selected sections

Figure 55. Plan of four-post and 6-post structures and related features (PRN 31579) with selected sections

Figure 56. Plan of northern features in Area J (PRN 31580) with selected sections

Figure 57. Location of pits PRN 31575 and detailed excavation plan

Figure 58. Location and overall view of main roundhouse settlement (PRN 14599) in Areas B2 and F1

Figure 59. Investigation of the marsh edge deposits in Area F1

Figure 60. Sections of the deposits on the edge of the marsh

Figure 61. Pre-roundhouse settlement features in Areas B2 and F1, with inset showing details of Late Neolithic activity

Figure 62. Selected sections through pre-roundhouse settlement ditches and related deposits

Figure 63. Reinterpretation of west facing section through walls 90120 and 90464

Figure 64. Reinterpretation of north-west facing section through walls 90120 and 90464

Figure 65. Overview of centre of the roundhouse settlement (PRN 14599) showing structures of all phases

Figure 66. Phases of the roundhouse settlement

Figure 67. Summary matrix for the roundhouse settlement showing dated contexts

Figure 68. Roundhouse E and first phases of roundhouses A and B

Figure 69. Sections through roundhouse E

Figure 70. Sections through roundhouse A and between roundhouses A and E

Figure 71. Details of the two phases of the porch of roundhouse A

Figure 72. Sections through roundhouse B and stone deposits to SE of roundhouse

Figure 73. Roundhouse B, its pathway and structures 93004 and 94019

Figure 74. Earliest phase of roundhouse I

Figure 75. Later phase of roundhouse A and earlier phase of roundhouse C

Figure 76. Later phases of roundhouse B and roundhouse C

Figure 77. Sections across roundhouse C

Figure 78. The later phase of roundhouse I and structure H

Figure 79. Structure F and nearby features with selected sections

Figure 80. The western part of Area F1 with part of Area E (inset showing detail of group 93308)

Figure 81. Distribution of finds from the roundhouse settlement

Figure 82. Plan of relationship between structure 22171, gully 25047 and the roundhouse settlement

Figure 83. Pit group 25046 in Area B1 and structure 22171 in Area L3 (PRNs 31592 and PRN 31593)

Figure 84. Ditches within Area B3 (PRN 31594), with selected sections

Figure 85. Plans and sections of pit group 19073 and neighbouring features (PRN 31598)

Figure 86. Clay-walled roundhouses in Area K7 (PRN 31595)

Figure 87. Selected sections of features in the clay-walled roundhouses

Figure 88. Plan of the combined evidence, geophysical and evaluation trenches, for a roundhouse settlement in Area K5 (PRN 14602)

Figure 89. Plan of features in Areas K2 and K3 with section of culvert

Figure 90. Building complex in Area K9 (PRN 31596), with sections of some of the outlying features

Figure 91. Detail of building complex in Area K9, western part, with insets showing pit 80041 fully excavated and stone layers over structure 80527

Figure 92. Detail of building complex in Area K9, eastern part

Figure 93. Selected sections of the building complex in Area K9

Figure 94. Selected sections of the building complex in Area K9

Figure 95. Selected sections of the building complex in Area K9

Figure 96. Selected sections of the building complex in Area K9

Figure 97. Finds distribution in the building complex in Area K9

Figure 98. Roman period trackway and field boundaries across Area J (PRN 31597), with Cae Glas evaluation trenches marked

Figure 99. Western end of trackway in Area J

Figure 100. Sections of western end of trackway in Area J

Figure 101. Eastern end of trackway in Area J, with selected sections

Figure 102. Part of cover sheet for book of Penrhos Estate maps showing route of 18th century tracks and roads (Image courtesy of Archives and Special Collections, Bangor University (Penrhos II, 772, date 1769)))

Figure 103. Plan of long cist cemetery (PRN 31600), with inset showing its location on top of the hill

Figure 104. Selected sections from the long cist cemetery

Figure 105. Sections of corn dryers

Figure 106. Plans and sections of corn dryers 80137, 21051, 21229 and 22158

Figure 107. Part of a page from Penrhos II 772 showing the farms of Tyddyn Pioden (F) and Merddyn Poeth (E) (1769) (Image courtesy of Archives and Special Collections, Bangor University (Penrhos II, 772))

Figure 108. Page from Penrhos II 772 showing the farm of Pen y Lone (1769) (Image courtesy of Archives and Special Collections, Bangor University (Penrhos II, 772))

Figure 109. Page from Penrhos II 804 showing the area of Parc Cybi in 1817 (Image courtesy of Archives and Special Collections, Bangor University (Penrhos II, 804))

Figure 110. Part of the tithe map for the Parish of Holyhead in the County of Anglesey (1841)

Figure 111. Parts of 25" County Series Anglesey sheets XI.6 and XI.7 (first edition 1889)

Figure 112. Parts of 25" County Series Anglesey sheets XI.6 and XI.7 (second edition 1900)

Figure 113. Parts of 25" County Series Anglesey sheets XI.6 and XI.7 (third edition 1924)

Figure 114. Tyddyn Pioden farm on maps of various dates (PRN 18403)

Figure 115. Tyddyn Pioden farmyard and boundaries overlaid on part of the 1769 estate map (Image courtesy of Archives and Special Collections, Bangor University (Penrhos II, 772))

Figure 116. Excavated remains of the Tyddyn Pioden farmhouse and earlier features

Figure 117. Details of maps showing Pen y Lôn and Bonc Dêg (Penrhos II Estate Maps, images courtesy of Archives and Special Collections, Bangor University)

Figure 118. Excavated remains of Pen y Lôn farmstead (PRN 14588) and Bonc Dêg (PRN 13928)

Figure 119. Sections through possible pony gin and related features next to the Pen y Lôn farmstead (PRN 14588)

Figure 120. Excavated remains relating to the earliest Trefignath farmstead (PRN 13929)

Figure 121. Details of estate maps showing Trefignath Farm (Penrhos II Estate Maps, images courtesy of Archives and Special Collections, Bangor University)

Figure 122. Trefignath Farm on the County Series 25 inch map (Anglesey sheet XI.07 first, second and third editions)

Figure 123. The rocky knoll at Trefignath Farm and features on and around it

Figure 124. Details of maps showing Merddyn Poeth (PRN 36509) (Penrhos II Estate Maps, images courtesy of Archives and Special Collections, Bangor University)

Figure 125. Plan of excavated features at Merddyn Poeth overlaid on second edition County Series map (1900)

Figure 126. Field boundaries in Area K7 (PRN 31608), with inset showing gully PRN 31619

Figure 127. Field boundaries in Area F2 and F3 (PRN 31609)

Figure 128. Plan and elevation of well PRN 31614

Figure 129. Plan of small enclosures in Area E (PRN 31618)

Figure 130. Small enclosures in Area D3

Figure 131. General plan showing the distribution of prehistoric pottery at Parc Cybi

Figure 132. Distribution of Cheshire Salt Containers (map by Dr Rob Philpott, up-dated version of Philpott 2010, fig 5.5, reproduced with kind permission)

Figure 133. Distribution of knapped stone within the roundhouse settlement in Areas B2 and F1

Figure 134. Distribution of worked stone objects within the roundhouse settlement in Areas B2 and F1

Figure 135. Location of Neolithic stone axes within and near the roundhouse settlement in Area B2

Figure 136. Distribution of spindle whorls and perforated stones in the core of the roundhouse settlement (both early and late phases shown)

Figure 137. Distribution of spindle whorls, perforated stones and shale objects in roundhouse E and structure F

Figure 138. Distribution of shale objects in the roundhouse settlement in Area B2

Figure 139. Location of smithing sites and other features discussed in the archaeometalurgical report

Figure 140. Plan of test pits and evaluation trenches showing depth of peat in Area G

Figure 141. Plan of bore holes and other investigation of the peat in Area K

Figure 142. Distribution of animal remains identifiable to species in the three phases of the roundhouse settlement in Areas B2/F1

Figure 143. Location of sites in Wales with dated Middle and Late Neolithic pottery

Figure 144. Part of First Edition County Series map (1889) showing marshy area running inland from Penrhos Beach

Figure 145. Extract from Stanley's map "Group of Ancient Habitations called Cyttau'r Gwyddelod, SE Flank of Holyhead Mountain" showing the "Danish fort" at Borth Wen (Stanley 1868, map opposite p385)

Figure 146. Map showing relationship of Bronze Age monuments at Parc Cybi to Holyhead Mountain

Figure 147. Location of Neolithic building in relation to Trefignath tomb with inset profiles across the site (NB horizontal and vertical scales on the profiles are different)

Figure 148. Proposed relationship of the Early Neolithic building and the tomb at the three stages of the tomb's development

Figure 149. Plan of location of burnt mounds and temporary occupation area showing topography

Figure 150. Bronze Age features on Parc Cybi in relation to the topography and chambered tomb with a proposed routeway

Figure 151. Distribution of Iron Age and Roman period settlements on Anglesey

Figure 152. Plan of House 1, Trevelgue Head compared to Roundhouse I, Parc Cybi

Figure 153. Distribution of long cists and other Early Medieval graves across Anglesey

Figure 154. Location of Roman period sites on Holy Island with inset of Roman votive statuette from Rhoscolyn (drawn by Frances Lynch)

Figure 155. Distribution of corn dryers on Parc Cybi

Figure 156. Excavated ring gullies from England (part of figure 2.2 in Gardiner 2013, produced with the author's kind permission and assistance)

List of Plates

Plates are located in this volume.

- Plate 1. Ploughsoil stripping starting at Parc Cybi. View looking south with the A55 on the left and Kingsland Road on the right (photograph by David Longley)
- Plate 2. Valley mire with rock outcrops in the middle of Parc Cybi (photograph taken 2018)
- Plate 3. Section through the natural loess in Area E
- Plate 4. Trefignath chambered tomb (PRN 2500)
- Plate 5. Tŷ Mawr ring ditch and overlying long cist cemetery (PRN 67896)
- Plate 6. Entrance and walls to Caer y Tŵr hillfort (PRN 1760) (photograph by David Longley)
- Plate 7. The Tŷ Mawr hut circles (PRN 1755) (photograph by David Longley)
- Plate 8. A view of Parc Cybi in 2019
- Plate 9. Machine stripping topsoil and ploughsoil
- Plate 10. Machine stripping being monitored, with Holyhead Mountain in the background
- Plate 11. Early Neolithic rectangular timber building from the north with rock outcrop behind
- Plate 12. Aisle posthole 50179 half sectioned
- Plate 13. Horizontal stone overlying posthole 50033
- Plate 14. Early Neolithic rectangular timber building from the eastern end showing the packing stones in the eastern gable end
- Plate 15. Wall slot 50101 with posthole 50084 at the eastern end: partially excavated
- Plate 16. The upper part of pit 50044 with charcoal backfill 02100
- Plate 17. Pit 50044 and posthole 50087 fully excavated
- Plate 18. Stones filling pit 50092 and slab 50121 over pit 50120
- Plate 19. Pit 50120 fully excavated showing stones set on edge
- Plate 20. Pit hearth 50145
- Plate 21. Pit hearth 501116/50133
- Plate 22. Posthole 50010 half sectioned showing packing stone
- Plate 23. Feature 50452 with stone set along the side
- Plate 24. View of rock outcrop from north-west with excavation just starting on Early Neolithic building (ranging rods at west-south-west end of building)
- Plate 25. Hollow in the glacial gravels in Area E in which temporary occupation occurred in the Neolithic period
- Plate 26. Working shot of digging the occupation area in the hollow
- Plate 27. Stakeholes in the occupation area with stone slab 31041 in the background
- Plate 28. Pit 40079 half sectioned
- Plate 29. Posthole 40088 half sectioned
- Plate 30. Pit 40076 fully excavated
- Plate 31. Pits 21221 and 25054 half sectioned with pit 21219 fully excavated in the background
- Plate 32. Pit 18059 half sectioned
- Plate 33. Pit 21037 half sectioned
- Plate 34. Pit 19075 before excavation showing burnt stone in the fill
- Plate 35. Pit 80594 fully excavated
- Plate 36. Pit 80602 fully excavated
- Plate 37. Hearth defined by gully 60125
- Plate 38. Pit 60093 half sectioned
- Plate 39. Pit 60162 half sectioned
- Plate 40. Burnt mound material in section under remains of field boundary
- Plate 41. Location of burnt mound
- Plate 42. Pits and well under the burnt mound
- Plate 43. Well (feature 31303) fully excavated, showing eroded sides
- Plate 44. Large slabs in the base of cut 31414
- Plate 45. Burnt mound spread 31002
- Plate 46. Pit 31008 and half-sectioned burnt mound
- Plate 47. Pit 31436 half sectioned
- Plate 48. Pit 31306 half sectioned
- Plate 49. Pit 07023 half sectioned
- Plate 50. Pits 03078 and 03082 half sectioned
- Plate 51. View of ceremonial complex under excavation with large hollow/pond on the left; D-shaped enclosure fully excavated, ring ditch excavation just started and the first cist just revealed near the small spoil heap

- in the lower right corner
- Plate 52. The larger cists fully exposed, viewed from above
- Plate 53. Cist 5 in cut 40161, showing construction
- Plate 54. Capstone of cist 6 in cut 40164, showing depth of capstone below surface of the natural gravels
- Plate 55. Capstone of cist 7 in cut 40169
- Plate 56. Removing the capstone of cist 5 in cut 40161, showing the void in the cist
- Plate 57. Cist 1 (cut 40109) next to cist 3 (cut 40119) with its capstone still in place
- Plate 58. Food vessel as found in cist 3
- Plate 59. Beaker as found in cist 7
- Plate 60. Flat stones (40202) around edge of capstone of cist 8
- Plate 61. D-shaped enclosure (PRN 31591) under excavation showing the stony upper fills
- Plate 62. D-shaped enclosure (PRN 31591) fully excavated, viewed from the north
- Plate 63. D-shaped enclosure (PRN 31591) fully excavated, viewed from the south
- Plate 64. Stone 22112 in D-shaped enclosure ditch
- Plate 65. Stones 22126 in D-shaped enclosure ditch, blocking cross ditch
- Plate 66. Stone deposit 22080 in D-shaped enclosure ditch
- Plate 67. Ring-ditch PRN 31590
- Plate 68. Tŷ Mawr Standing Stone (PRN 2501)
- Plate 69. Tŷ Mawr Standing Stone (PRN 2501), taken in June 2018 after the construction of the Truck Stop
- Plate 70. Post ring of timber roundhouse (PRN 31588)
- Plate 71. Part of Area J showing features cutting the orange loess. Also shows the base of an evaluation trench, which managed to avoid any features
- Plate 72. Four post structure in PRN 31577 (postholes 70348, 70550, 70351, and 70555)
- Plate 73. Line of postholes (70060, 70062, 70068) in PRN 31578
- Plate 74. Postholes 70033-70047 in PRN 31578
- Plate 75. Four and six post structures in PRN 31579
- Plate 76. Conditions of excavation in Area B2 with archaeologists separated from an active haul road (photograph by David Longley)
- Plate 77. Roundhouse settlement under excavation (photograph by David Longley)
- Plate 78. Stone deposit 93624 exposed at marsh edge and seen in section
- Plate 79. Stone layer 93624
- Plate 80. Birmingham Archaeo-Environmental taking cores in the marsh in Area G
- Plate 81. Bark deposit 93468 in the edge of the marsh
- Plate 82. Detail of bark deposit 93468
- Plate 83. Lower part of section through marsh edge deposits showing peaty layer
- Plate 84. Upper part of section through marsh edge deposits showing peaty layer continuing onto dryland
- Plate 85. Culvert 90522 (on right) cutting ditch 92799
- Plate 86. Loose, voided stone rubble (91906) under roundhouse E
- Plate 87. Section through stone rubble (91906) under roundhouse E
- Plate 88. Revetment (91921) to platform under roundhouse E
- Plate 89. Possible flood defences. Feature 91232 runs from bottom left to top right
- Plate 90. Roundhouse B as first exposed, showing stone walls immediately below the ploughsoil
- Plate 91. Aerial view of roundhouses A, B and E under excavation
- Plate 92. Roundhouse E from the west, showing entrance and wall
- Plate 93. North-east quadrant of roundhouse E showing wall and internal features
- Plate 94. Hearthstone set in middle of roundhouse E, seen in section
- Plate 95. Finely layered deposits around hearthstone in roundhouse E, shown in section with floor layers and stone platform material
- Plate 96. Large posthole 91552 with kerb slab (94012) next to it
- Plate 97. Grinding stone 92230 *in situ* in north-west quadrant of roundhouse E (immediately right of the ranging rods) with wall in foreground
- Plate 98. Wall 92016 after overlying floors of roundhouse C have been removed
- Plate 99. Roundhouse A from north-west
- Plate 100. Kerb 90661 and metalised surface
- Plate 101. Posthole 90750 with packing stones
- Plate 102. Stone platform 90884 under roundhouse B
- Plate 103. Exterior of wall of roundhouse B, overlying silt deposits
- Plate 104. Inner face of wall of roundhouse B

Plate 105. Hearth slab 91964 in roundhouse B
 Plate 106. Structures 93004 and 94019 fully excavated
 Plate 107. Structure 93004 fully excavated
 Plate 108. Posthole 92887 with packing stones
 Plate 109. Teeth sf794 *in situ* in gully 92731
 Plate 110. Pit 92785 showing stone lining in base; possibly a corn dryer related to structure 94019.
 Plate 111. Working shot showing wall 90010
 Plate 112. North-east face of wall 90010 fully exposed, showing packing stones at base
 Plate 113. South-west face of wall 90010 fully exposed, shown overlying platform deposits and with stone 92589
 Plate 114. Ditches 92189 and 92210 forming entrance into settlement
 Plate 115. Drying cracks seen in the surface of the gravel platform
 Plate 116. Roundhouse I fully excavated, located on the gravel platform on the edge of the marsh
 Plate 117. Conjoined elongated 'postholes' forming wall of roundhouse I
 Plate 118. Posthole 93162 half sectioned in an evaluation slot, showing stone fill
 Plate 119. Posthole 93165 half sectioned, showing stones in upper part of fill
 Plate 120. Posthole 9271 half sectioned, showing burnt stone in backfill
 Plate 121. Posthole 93383 with post pad in base and adjacent features
 Plate 122. Granary structure 93059 fully excavated, partially cut away by culvert 90522
 Plate 123. Wall addition 90556 creating additional width at the entrance to roundhouse A
 Plate 124. Slab pathway (90984) leading into the entrance of roundhouse A
 Plate 125. Pillar stone from a granary (sf729) *in situ* built into the entrance of roundhouse A
 Plate 126. Foundation trench 90679 forming internal structure in roundhouse A
 Plate 127. Roundhouse settlement under excavation with roundhouse C in foreground, opposing quadrants excavated
 Plate 128. North-west quadrant of roundhouse C showing wall and upper floor layer
 Plate 129. South-west quadrant of roundhouse C excavated down to first floor layer
 Plate 130. Cylindrical stone with a central hole (sf574) *in situ* in roundhouse C
 Plate 131. Roundhouse C as first exposed showing upper floor layer and wall 90054
 Plate 132. Wall of roundhouse B showing various additions
 Plate 133. Surviving fragment of wall (90464) of structure D
 Plate 134. Cobbled floor (92469) and slot (92467), part of structure 94016
 Plate 135. Structure 93477; four post structure with large post pads in the postholes
 Plate 136. Cupmarked stone in base of posthole 93455
 Plate 137. Structure 93003 fully excavated
 Plate 138. Structure 93003 prior to excavation showing large packing stones in the postholes
 Plate 139. Iron object sf814 *in situ*
 Plate 140. Structure F with stone layer (90498) in foreground
 Plate 141. Group 93308 with wall 93027, kerb arc 93295 and trough 93253
 Plate 142. Stone lined trough 93253
 Plate 143. Hollow 22171 with postholes
 Plate 144. Pit 03029 fully excavated
 Plate 145. Possible earth oven (21039) half sectioned
 Plate 146. Roundhouse 80249 showing drain lining and other internal features
 Plate 147. Roundhouse 80249 fully excavated
 Plate 148. Section of hearth pit 80227
 Plate 149. Roundhouse 80248 as first exposed showing demolition deposits and drain capping
 Plate 150. Northern half of Roundhouse 80248 showing drain lining
 Plate 151. Northern half of Roundhouse 80248 fully excavated
 Plate 152. Section through drain 80286 showing iron oxide precipitate
 Plate 153. North-east quadrant of roundhouse showing part of the burnt spread (80334)
 Plate 154. Structure 80526
 Plate 155. Large pit (80905) under the corner of Structure 80526
 Plate 156. Pit 81041 excavated, showing side slabs
 Plate 157. Pit 81041 with capstones and backfilled stone
 Plate 158. Structure 80527 fully excavated apart from boulder hearth, showing density of features
 Plate 159. Boulder hearth under excavation
 Plate 160. Reddened clay lining in boulder hearth (80839)

- Plate 161. Boulder hearth (80839) and stone bowl (81001) set into clay floor
- Plate 162. Stone bowl 81001 *in situ*
- Plate 163. Hearth with cut 81308 to north of boulder hearth
- Plate 164. Iron cleaver (sf6186) *in situ*
- Plate 165. Stone lined trough 81220
- Plate 166. Structure 80527 partially excavated showing charcoal-rich occupation deposit covering interior of the structure
- Plate 167. Stone deposits over structure 80527
- Plate 168. Rotary quern top stone (sf6054) *in situ*
- Plate 169. Boulder hearth just protruding through stone deposits that backfilled it
- Plate 170. Pits and postholes forming group A, between structures 80526 and 80527
- Plate 171. Section through pits 81200 and 81150 and associated floor layers
- Plate 172. Trough 80440
- Plate 173. Linear terrace defined by scarps 81208 and 81279
- Plate 174. Southern edge of road terrace (70527) with earth bank (70526) in section and kerb (70525) in background
- Plate 175. Rough wall or bank 70306
- Plate 176. Section of ditch 70622 beside trackway
- Plate 177. Probably Roman period stone faced bank 70006
- Plate 178. Bank 70441/70442 and ditch 70444 marking eastern end of trackway
- Plate 179. Long cist cemetery (PRN 31600) in Area K7
- Plate 180. Graves G, I, K and L with stone cists of varying completeness
- Plate 181. Grave X with packing stones indicating a wooden cist
- Plate 182. Graves in southern part of the cemetery where bedrock outcropped and was used for the base of some cists
- Plate 183. Slabs 80673 slumping into Grave C
- Plate 184. Human remains in Grave A, the best preserved remains in the cemetery
- Plate 185. Cut 80044 with slabs 80045, possible anvil emplacement
- Plate 186. Feature 80044 cutting through probable grave (cut 80063)
- Plate 187. Corn dryer 80835 (PRN 76100) adjacent to structure 80526
- Plate 188. Corn dryer 80924 (PRN 76101), showing stone lining
- Plate 189. Corn dryer 80056 (PRN 31601), half sectioned
- Plate 190. Corn dryer 80137 (PRN 31602), showing stone structure
- Plate 191. Corn dryer 21051 (PRN 31603), half sectioned, showing stones in the fill
- Plate 192. Corn dryer 21229 (PRN 31604)
- Plate 193. Possible corn dryer 22158 half sectioned (PRN 81343)
- Plate 194. The view in 1953 from the northern end of the site looking south down Lôn Trefignath to the farm of Bonc Dêg and beyond to Trefignath Farm on the hill (painted by Tegwyn F. Jones and reproduced with his permission)
- Plate 195. The farmyard of Bonc Dêg in 1953 looking in from the road (painted by Tegwyn F. Jones and reproduced with his permission)
- Plate 196. The view in 1953 across the site towards Tyddyn Pioden and Merddyn Poeth with the wind mill beyond (painted by Tegwyn F. Jones and reproduced with his permission)
- Plate 197. Wall 19214 that formed the boundary to Tyddyn Biogen yard
- Plate 198. Small fragment of boulder-built wall (31347)
- Plate 199. Building remains Group 31174, with cobbled floor and hearth base
- Plate 200. Featureless silver coin (sf4440) found in clay over building 31174
- Plate 201. Wall 31224
- Plate 202. Pit 31152 containing smithing waste
- Plate 203. Stone spread 90443 and related features
- Plate 204. Line of stone slabs (91968) (walkway/path to the marsh)
- Plate 205. Possible pony gin structure
- Plate 206. A horse gin at the Scottish National Museum of Rural Life, Wester Kittochside Farm near Glasgow
- Plate 207. Wall 90222
- Plate 208. Original gateposts leading into the old Trefignath farmyard
- Plate 209. Circular gully 70491, probable hayrick gully
- Plate 210. Circular gully 70491 fully excavated with sondage dug in centre to check for possible burials or other features

Plate 211. Large stone threshold slab leading to an internal concrete floor (70365) leading into the Trefignath Farmhouse

Plate 212. Small structure (03038) with concrete roof

Plate 213. Plastered wall in structure 03039

Plate 214. Structure 03040

Plate 215. Reverse Z-shaped wall (03042)

Plate 216. Remains of Merddyn Poeth house

Plate 217. Merddyn Poeth's well superstructure

Plate 218. View down Merddyn Poeth's well

Plate 219. Section through Culvert 90522

Plate 220. Water still running in culvert 90066

Plate 221. Stone-built well (80157) with steps leading into it

Plate 222. Well 60087 in Area D3

Plate 223. Well 18030 near Merddyn Poeth

Plate 224. Enclosure 31579

Plate 225. Enclosure 31529

Plate 226. Enclosure 80162

Plate 227. Part of enclosure 60186

Plate 228. Enclosure 60204/60221

Plate 229. Flint axe from Cwm, Holyhead ((PRN 5667), British Museum accession number 1875, 0424.1 (image: British Museum)

Plate 230. Polished stone axe (sf229) as found in the core of wall addition 90847 within roundhouse B

Plate 231. Polished stone axe (sf102) being discovered in post-medieval pit 90055

Plate 232. The cairn-like summit of Holyhead Mountain

Plate 233. Feature 0110, fully excavated, in trench 1 at Kingsland (PRN 34737)

Plate 234. Large stone on edge in feature 0110

Plate 235. View from middle of roundhouse I through entrance (diggers are standing in the outer porch postholes). Holyhead Mountain would be visible through the entrance. (Exploratory sondages dug through gravel platform seen in foreground)

**PARC CYBI, HOLYHEAD
(G1701)**

FINAL REPORT ON EXCAVATIONS

SUMMARY

This report provides the full results, with specialist reports, of a programme of archaeological work carried out in advance of the Parc Cybi strategic mixed use development at Holyhead, Anglesey (centred on SH 2555 8075). The work was undertaken by Gwynedd Archaeological Trust for the Welsh Government. The fieldwork involved strip, map and sample evaluation of a large proportion of the development area followed by full excavation of significant sites. This took place between November 2006 and June 2008, inclusive, with a second season from September 2009 to February 2010. An assessment of potential report was produced with recommendations for further specialist work and the current report includes the results of that further work and full descriptions and interpretations of the sites investigated.

This report is presented in three volumes: volume 1 is the main text, volume 2 includes tables and figures, volume 3 includes specialist reports and related figures and tables. The excavated features range from the Mesolithic to the 19th century and the finds include pottery, lithics, glass, metal artefacts and palaeoenvironmental data.

Settlement within the Early Neolithic period was evidenced by a rectangular timber building, which, because of its rarity and its association with the chambered burial cairn of Trefignath, is of international significance. Other Early Neolithic settlement of a more ephemeral character was also excavated and extensive activity continued into the Middle and Late Neolithic. Dating of Peterborough and Grooved Ware from this activity has contributed to the chronology of these pottery types in Wales. The later Neolithic was also represented by a small burnt mound, while a larger burnt mound was Beaker period in date and located within 30m of other Beaker period activity as represented by a scatter of pottery.

Archaeological evidence for the Bronze Age included a complex of ceremonial monuments, consisting of a multiple-cist barrow, the ring ditch of a barrow and a deep-ditched enclosure. Other evidence, including the standing stone within the site boundary, and the barrow near Tŷ Mawr farm excavated in advance of the A55 dual-carriageway, suggest the former presence of a significant ritual landscape. A timber roundhouse and associated activity, including post-built storage structures of four and six posts each, are of probable Bronze Age date.

A settlement of stone-built roundhouses with complex stratigraphy was accompanied by several outlying roundhouses and other structures, as well as possibly contemporary field boundaries. The settlement was preceded by boundary ditches and a stone platform. A large fire occurred on the platform in the Early Iron Age, possibly representing the burning of a roundhouse. This was replaced in the Middle Iron Age by a settlement with up to four main houses at any one time and additional buildings including granaries. Two outlying clay-walled roundhouses were roughly contemporary with the main settlement and other small scale activity also occurred on the site at this time.

Later Iron Age activity was represented only by a small structure and associated pit group, and Early Roman activity was slight, but by the late 3rd or 4th century a trackway ran through the site. Next to the trackway was a group of structures with industrial and storage functions. These included a clay-walled building with hearths and troughs inside, a square stone building and numerous timber storage structures. Late Roman smithing activity took place within a pre-existing small long cist cemetery on top of a hill. The cemetery could not be directly dated but the Late Roman iron working disturbed an existing grave and therefore the cemetery is considered to be a rare example of a Late Roman long cist cemetery.

Evidence for Early Medieval activity included several corn dryers all dating to the 5th or 6th centuries AD. The development of later medieval and post-medieval field systems, cottages and farmhouses is evidenced, and is supplemented from the 18th century by evidence from estate maps.

The finds (including charred plant remains) are held at Oriel Ynys Môn, Llangefni, the paper record is held by Anglesey Archives, Llangefni and the digital record by the Royal Commission on the Ancient and Historic Monuments of Wales, Aberystwyth.

CRYNODEB

Mae'r adroddiad hwn yn darparu canlyniadau llawn, gydag adroddiadau arbenigol, yn dilyn rhaglen o waith archaeolegol a gynhaliwyd o flaen datblygiad defnydd cymysg strategol Parc Cybi yng Nghaergybi, Ynys Môn (wedi ei ganoli ar SH 2555 8075). Ymgwymerwyd â'r gwaith gan Ymddiriedolaeth Archaeolegol Gwynedd ar ran Llywodraeth Cymru. Roedd y gwaith maes yn cynnwys asesiad stripio, mapio a samplu ar gyfran fawr o'r ardal ddatblygu, gyda chloddio llawn o safleoedd arwyddocaol i ddilyn. Digwyddodd hyn rhwng Tachwedd 2006 a Mehefin 2008, yn gynhwysol, gydag ail dymor o Fedi 2009 i Chwefror 2010. Darparwyd adroddiad asesiad potensial gydag argymhellion y dylid cynnal gwaith arbenigol pellach, ac mae'r adroddiad hwn yn cynnwys canlyniadau'r gwaith pellach hwnnw yn ogystal â disgrifiadau a dehongliadau llawn o'r safleoedd a ymchwiliwyd.

Cyflwynir yr adroddiad hwn mewn tair cyfrol: cyfrol 1 yw'r prif destun, mae cyfrol 2 yn cynnwys tablau a ffigurau, mae cyfrol 3 yn cynnwys adroddiadau arbenigol a ffigurau a thablau cysylltiedig. Mae'r nodweddion a gloddiwyd yn ymestyn o'r Mesolithig i'r 19^{es} ganrif ac mae'r darganfyddiadau'n cynnwys crochenwaith, lithigau, gwydr, arteffactau metel a data paleo-amgylcheddol.

Tystiwyd bod anheddu yn ystod y cyfnod Neolithig Cynnar trwy gyfrwng adeilad petryal pren, sydd, oherwydd ei brinder a'i gysylltiad gyda charnedd gladdu gellog Trefignath, o arwyddocaol rhyngwladol. Hefyd cloddiwyd aneddiad Neolithig Cynnar arall mwy byrhoedlog ei natur y tro hwn, ac aeth gweithgarwch ymlaen ar raddfa eang i'r Neolithig Canol a Hwyr. Mae dyddio crochenwaith Trebedr (Peterborough) a Rhychiog o'r gweithgarwch hwn wedi cyfrannu at gronoleg y mathau hyn o grochenwaith yng Nghymru. Cynrychiolwyd y Neolithig hwyrach gan dwmpath llosg bychan, tra bo twmpath llosg mwy yn dyddio o gyfnod Biceri ac wedi ei ddarganfod o fewn 30m i weithgarwch cyfnod Biceri arall a gynrychiolwyd gan wasgariad o grochenwaith.

Roedd tystiolaeth ar gyfer cyfnod yr Oes Efydd yn cynnwys cymhlethfa o henebion seremonïol, gan gynnwys beddrod aml-gist, ffos gylch ar gyfer beddrod, a lloc gyda ffos ddofn. Mae'r dystiolaeth arall, gan gynnwys y maen hir oddi fewn i derfyn y safle, a'r beddrod yn ymyl fferm Tŷ Mawr a gloddiwyd cyn adeiladu ffordd ddeuol yr A55, yn awgrymu bod tirwedd seremonïol arwyddocaol wedi bod yma'n gynharach. Mae tŷ crwn pren a gweithgarwch cysylltiedig, yn cynnwys adeiladau storio wedi eu codi gyda physt a gyda phedwar a chwe phost yn yr un, yn dyddio o'r Oes Efydd mae'n debyg.

Gydag aneddiad o dai crynion carreg â stratigraffeg cymhleth roedd nifer o dai crynion pellenig ac adeiladau eraill, yn ogystal â therfynau cae cyfoesol posib. O flaen yr aneddiad roedd ffosydd terfyn a llwyfan carreg. Bu tân mawr ar y llwyfan hwn yn ystod yr Oes Haearn Gynnar, a hynny'n cynrychioli llosgi tŷ crwn mae'n bosib. Yn ystod yr Oes Haearn Ganol, rhoddwyd aneddiad gyda hyd at bedwar prif dŷ ar unrhyw un adeg i gymryd ei le, ac adeiladau ychwanegol gan gynnwys ysguboriau. Roedd dau dŷ crwn pellenig o furiau clai'n fras-gyfoes gyda'r prif aneddiad, a bu gweithgarwch arall ar raddfa fechan ar y safle bryd hynny hefyd.

Cynrychiolwyd gweithgarwch yr Oes Haearn Hwyrach gan fawr ddim ag eithro adeilad bychan a grŵp o dyllau cysylltiedig, a phrin oedd gweithgarwch Rhufeinig Cynnar, ond erbyn y 3^{edd} neu'r 4^{edd} ganrif roedd llwybr yn rhedeg drwy'r safle. Wrth ymyl y llwybr roedd grŵp o adeiladau gyda swyddogaeth ddiwydiannol a storio. Roedd rhain yn cynnwys adeilad â muriau clai gydag aelwydydd a chafnau oddi fewn iddo, adeilad sgwâr o garreg, a nifer o adeiladau pren ar gyfer storio. Bu gwaith gof Rhufeinig Hwyr yn digwydd mewn mynwent cist hir fechan cynfodol ar ben bryn. Nid oedd modd dyddio'r fynwent yn uniongyrchol, ond roedd y gwaith haearn Rhufeinig Hwyr wedi drysu bedd oedd mewn bodolaeth eisoes, ac felly gellir ystyried y fynwent yn esiampl prin o fynwent cist hir Rhufeinig Hwyr.

Roedd tystiolaeth ar gyfer gweithgarwch Canoloesol Cynnar yn cynnwys nifer o sychwyr grawn i gyd yn dyddio o'r 5^{ed} neu'r 6^{ed} ganrif OC. Mae tystiolaeth o ddatblygiad systemau cae, bythynnod a ffermdai canoloesol hwyrach ac ôl-ganoloesol, ac mae rhagor o dystiolaeth i'w gael mewn mapiau ystâd y 18^{fed} ganrif.

Cedwir y darganfyddiadau (gan gynnwys olion planhigion llosg) yn Oriel Ynys Môn, Llangefni, cedwir y gofnod bapur yn Archifdy Ynys Môn, Llangefni, a chedwir y gofnod ddigidol gan Gomisiwn Brenhinol Henebion Cymru, Aberystwyth.

INTRODUCTION

Gwynedd Archaeological Trust carried out a programme of archaeological work at Parc Cybi, Holyhead in advance of a strategic mixed use development. The work was commissioned by Atkins on behalf of the Welsh Assembly Government, and started on 6th November 2006. Phase 1 Part I of the fieldwork was completed on 30th June 2008, and Phase 1 Part II commenced on 7th September 2009 focusing on archaeology already uncovered but preserved *in-situ* in Areas K9 and F1b, as well as the previously unexcavated Area J3. The second part of the fieldwork finished on 26th February 2010. The work was monitored and advised by Gwynedd Archaeological Planning Service on behalf of the Local Planning Authority to ensure that the planning conditions were fulfilled and the work undertaken to the appropriate standard.

This document provides the full results of the archaeological excavation, and conforms to the guidelines for the 'Management of Archaeological Projects' (MAP 2) prepared by English Heritage (1991). The work follows an 'Updated Project Design' first issued in 2011 and altered and reissued as the brief for the project in 2017. This design has been agreed with the Local Authority Planning Archaeologist. The design reviews the major research themes informing the next phase of the project, and provides a methodology for further work and a task list detailing the roles of all participants leading to the full publication of the results.

The management of this project follows guidelines specified in *Management of Archaeological Projects* (English Heritage, 1991). Five stages are specified:

Phase 1: project planning

Phase 2: fieldwork

Phase 3: assessment of potential for analysis

Phase 4: analysis and report preparation

Phase 5: dissemination

The post-excavation stage of the project includes phases 3 to 5. This document covers phase 4, including further analysis and grey literature reporting. This part of the project has also included the preparation of a publication, as well as wider dissemination of the results and archiving of the finds and records.

This phase has included the fulfilment of academic and archaeological objectives defined in the project design and associated assessment of potential report. The Archaeological Research Framework for Wales published online (<http://www.archaeoleg.org.uk/index.html>) in 2005 was consulted when writing the project design but this has since been up-dated and any new questions and areas of focus have been included in the discussions below.

This report consists of three volumes. Volume 1 contains the main text, plates and tables; this presents the background to the project, the excavation results, summary discussions of the artefacts and palaeoenvironmental data and general discussions of each period. Volume 2 contains the figures relating to the main text and volume 3 contains the full specialist reports and figures associated with them, some of which are also referenced in the main text. Each specialist report is identified by Roman numerals and these are used to reference the reports in the main text.

Throughout volume 1 certain conventions and abbreviations have been used. PRN refers to the Gwynedd Historic Environment Record (HER) Primary Record Number and identifies a site recorded in the HER. Where a reference is given to a certain PRN FI File this refers to Further Information files held by the HER for certain sites and filed by PRN. The abbreviation "sf" indicates "small find" and is used to distinguish numbers used to identify artefacts from other record numbers, such as Context Numbers. The latter are numbers used to identify deposits and cuts and these are presented in the text without brackets, unless these are grammatically necessary. Numbers were initially allocated to features as they were identified in the initial Strip, Map and Sampling process, but these Feature Numbers have not been used in the text, where the Context Number for the cut of a feature is used to identify that feature. Numbers, part of the Context Number sequence, were allocated to groups of features, especially structures so that these can be referenced as a whole. Some of these Structure or Group Numbers have been used in the text but in some cases it was convenient on site to refer to structures, such as the main stone-built roundhouses by letters and this practice has been continued in the text.

Presentation of Radiocarbon Dates

All calibrated radiocarbon dates are presented at 95% probability unless otherwise stated. Calibrated dates are rounded out to the nearest 10 years. Where dates have been used for comparisons those produced some years ago have been calibrated or recalibrated using Oxcal v4.3 with the IntCal 13 curve (Bronk Ramsey 2009). Where calibrated dates have been quoted in other publications without rounding out they have been rounded out to the nearest 10 years for consistency.

The use of Welsh and English placenames

Where places or topographic features have both Welsh and English names, the English name is used in this report, with the Welsh name in brackets when the name is first used.

Archive

A database was created in Microsoft Access containing all site information, allowing its efficient interrogation and output. The database includes the drawing, photographic, finds and samples registers, and selected information from the context sheets. All field drawings, context sheets and object record sheets have been scanned to provide a backup digital copy. The digital archive also includes photographs, surveys and specialist data.

The paper record is held at Anglesey Archives, Llangefni, the digital archive is held by the Royal Commission on the Ancient and Historical Monuments of Wales in Aberystwyth, and the artefactual archive is held by Oriol Ynys Môn, Llangefni (main collection: accession number 45/2019; gold ring: accession number 9/2016). The archive includes a full list of contexts and this has not been reproduced here due to its length.

A copy of this report is held in the Gwynedd Historic Environment Record (HER) and is available on-line through the Archwilio website. The report is also held by Royal Commission on the Ancient and Historical Monuments of Wales and is available on their Coflein website.

Quantification of the Archive

Site records

Contexts	9047 (excluding voided numbers)
Plan and section drawings	3217 drawings on 1355 sheets
Colour slides	4 films
Colour prints	219 films
Digital photographs	11,122 shots (7100 archived after duplicates removed)
TST digital site plan	1

Environmental samples

Flots from bulk samples	1924
Pollen/micromorphology monoliths	29
Soil samples for pollen	4
Burnt stone samples	66
Wood and other none charred organics	16
Bulk samples for insect remains	7
Shell	13
Animal bone	396
Human bone	22

NB. Soil monoliths, soil samples, burnt stone and wood have not been retained for the archive (see discard policy below)

Finds

For lithics the numbers refer individual pieces, but for other items they refer to small finds, which might include more than 1 piece.

Prehistoric pottery	880
Roman pottery	68
Medieval pottery	8
Post-medieval pottery	117
Post-medieval glass	40
Early glass	10

Flint	962
Chert	763
Quartz	134
Graig Lwyd	16
Other worked stone	408
Iron objects	52
Lead objects	8
Copper alloy objects	32
Burnt clay	273
Metal working debris	260
Coins	1
Gold	1
Amber	1
Cannel coal	1

NB. Not all artefacts have been retained for the archive (see discard policy below)

Acknowledgements

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All the specialists who have contributed to the project are listed in volume 3 and they are all thanked for their contributions and willingness to discuss relevant elements of the site and presentation of the results. Frances Lynch, George Smith and Roz McKenna particularly had large tasks and put in extra work. Artefact drawings are by Tanya Williams, Frances Lynch, Marion O'Neil and Tony Daly. Bethan Jones, Carol Ryan Young and Neil McGuinness assisted with the production of figures, and John Roberts and Andrew Davidson gave support, administrative assistance, advice and editing.



Plate 1. Ploughsoil stripping starting at Parc Cybi. View looking south with the A55 on the left and Kingsland Road on the right (photograph by David Longley)

Background

Topographic background

The site covers over 41 hectares of pasture land to the south of Holyhead on Holy Island (centred on SH 2555 8075) (Figure 1). The terrain is characterised by rocky outcrops, often covered by gorse or rough grassland with marshy hollows between, and some better pastureland. The site lies between the A55 and Kingsland Road, with Lôn Trefnath running through its eastern side (plate 1).

Holy Island, or Ynys Cybi, is located off the western coast of Anglesey, to which currently it is joined by the Stanley Embankment, and by the bridge at Four Mile Bridge (Pont Rhed y Bont). Holyhead (Caergybi) is the principle town on Holy Island, and the development site lies to the southeast of the town.



Plate 2. Valley mire with rock outcrops in the middle of Parc Cybi (photograph taken 2018)

The island is dominated by Holyhead Mountain (Mynydd Tŵr) at its northern end, which reaches 220m OD and has heathland vegetation. The summit is rocky and it has some impressive sea cliffs along its north-eastern and western sides. The southern end of the island is lower and gentler with sandy beaches at Rhoscolyn and Silver Bay. There is also a sandy bay (Penrhos Beach / Traeth Penrhos) on the east coast and the popular tourist beach at Trearddur Bay opposite on the west coast, but much of the coastline is rocky.

Holy Island is separated from Anglesey by a narrow strait that largely empties of water at low tide. Part of this is now enclosed between the Stanley Embankment and the bridge at Four Mile Bridge. This area is known as the Inland Sea (Y Lasinwen). The tides around the headlands on the northern and western coast can be fierce, with an overfall known as Penrhyn Mawr, famous with kayakers, just off Penrhosfeilw Common. However, the eastern side of the island is sheltered with several small inlets.

Like much of Holy Island, the topography of the study area is characterized by north-east to south-west aligned rocky ridges within intervening boggy hollows (plate 2). The bedrock is never far below the surface, and occasionally outcrops as small crags and knolls. Most of the area has recently been used for grazing sheep and cattle, so prior to the development the vegetation was mostly improved grassland with gorse and bramble growing on the rocky ridges. One paddock just west of the site of Trefignath Farm had been planted with sycamores but otherwise there were few trees on the site.

Geology

By Dr David Jenkins

Solid geology

Figure 1

Rock exposures are scattered over the site as low, smooth knolls. Their petrology is relatively uniform and comprises hard, green, low-grade (chlorite/muscovite) metamorphic schists. These have been mapped as the Celyn portion of the of the “New Harbour Formation” within the Precambrian Mona “Complex” (Greenly 1919) or “Terrane” (Treagus 2008) which accounts for the major proportion of exposures on Anglesey. Original sedimentary structures, such as thin bands of darker fine grits, are well preserved and the schists contain contorted quartz bands and veins. They show a pronounced schistosity which dips at a shallow angle to the NNW. Elsewhere on Holy Island, the Celyn beds include jaspers, and epidote-rich schistose tuffs, and they are intruded by altered palaeozoic dolerite dykes, but none of these are seen on the site. To the north-west of the site, the Celyn beds pass up into quartzites and schistose grits of the South Stack formation.

Superficial geology and geomorphology

The geomorphology of Anglesey generally has been characterised as the “Arfon platform”, a low planar surface at ca. 50-100m a.s.l., which is considered to have formed by Tertiary marine planation (Brown 1960). The site of Parc Cybi is located on this platform. Above this protrude low peaks (ca. 180-200m a.s.l.), such as Holyhead Mountain, comprised of harder rock types.

The detailed morphology was the result of glaciation (“Devensian”) for which there is evidence of at least two phases of ice advancing south across the Irish Sea, the earlier traversing this portion of Anglesey to the south-west. This resulted in the removal of existing superficial deposits and soils and in the abrasion and further planation of exposed rock outcrops, with striated surfaces on the harder rocks such as the quartzites of South Stack; however, striae are not usually preserved on the softer green schists of the site. Erosion was combined with local deposition of greyish glacial till which is relatively patchy and thin in this area of Holy Isle. Whilst the local metamorphic rock material (green schists) was incorporated into the glacial deposits, there are also “exotic” rock types brought in from the rock exposures to the north-east, including harder quartzites, tuffs and dolerites from NW Anglesey and occasional Carboniferous cherts and other rock types from the floor of the Irish Sea. Superficial deposits would have been further modified by the local redistribution and grading of tills by powerful glacialfluvial (melt water) action during the northward retreat of the ice margins. Large scale examples from eastern Anglesey have been quarried for sand and gravel and described in detail (Helm and Roberts 1984), but small deposits can be expected locally.

An additional cryptic deposit of loess was identified on site in a 2.5m deep trench on the north side of the shallow valley at the west side of the site (plate 3). This homogenous fine (silt/sand) wind-blown deposit is typical of periglacial conditions and has been found at a number of localities overlying rock pavements in northern Anglesey.



Plate 3. Section through the natural loess in Area E

Of particular interest was the presence at some 2m depth of vertical cracks with a polygonal plan, outlined by paler colours due to the reduction of iron under waterlogged conditions. This is the “patterned ground” typical of the seasonal freezing of ground in periglacial regimes and, together with the overlying loess and probable solifluction deposits, indicative of such a climatic phase in the early post-glacial history of this site. In more recent times there will have been further modifications by stream activity in the small valley trending to the southwest, and by the coastal deposition by wind of sand (evident elsewhere in Anglesey) and by agricultural activity. This would have resulted in the localised patchwork of unsorted tills and resorted sands and gravels, which are found over the site.

Soil development and vegetation

The climate in this area is oceanic (data for Holyhead from Roberts 1958) with little variation in the 98mm annual rainfall (*ca.* 5-10mm *per* month) and an average daily temperature that ranges from 5.5-15°C; the daily sunshine hours are relatively high ranging from 1.7 (January) to 7.2 (June). The prevailing winds are from the south-west and the muted topography offers little shelter.

The soils of Anglesey were amongst the first to be mapped by the Soil Survey of England and Wales (Roberts 1958) and, although the terminology has been modernised (Avery 1980), this remains a useful reference for these soils. The soils on the site were broadly classified on the basis of parentage and drainage class as free-draining brown earths of the “Gaerwen Series”, formed on glacial drift derived from the rocks of the Precambrian Mona complex. These grade into the rocky “phase” of the Gaerwen Series where of shallow depth over rock outcrops or into gleyed brown earths of the “Trisant Series”, where there is some impedance to drainage due to topography or texture. The parentage of slow weathering schists imparts a low nutrient status to these soils compared, for example, to soils with a limestone component elsewhere on Anglesey, and they therefore require the addition of fertiliser (potassium and phosphorus) in modern agriculture. Nevertheless, they are extensive, loamy, well-structured and drained soils, easily managed, and therefore important as productive agricultural soils in Anglesey.

In finer detail, variations exist over the site due to variations in parentage and topography. Drainage is poorer in hollows and the valley floor leading to more pronounced gleying, and parentage may involve localised gravel and other deposits. For example, the pocket of loess identified which will have produced higher nutrient status soil, and a pronounced iron/manganese “pan” (cemented horizon) was also noted in sandier material on the valley side nearby.

Archaeological and historical background

See figures 2-4

For list of sites shown on figure 2-4 see Appendix I

Holy Island is dominated by the town of Holyhead but much of the island still has the character of an isolated island on the west coast of Britain. The town expanded in size and importance following the development of the port for use by packet boats to Ireland after 1800, but the island has a much longer history. Even prior to the present work there was considerable evidence of prehistoric activity. The Mesolithic period is represented by flint scatters around the coast. Several scatters have been found on Penrhosfeilw Common in areas of erosion and, while some finds are later, there is a proportion that are of Mesolithic date (PRNs¹ 1749, 38271-75, 38277, 38280-82) (Smith and Kenney 2014). Mesolithic flints have also been found near the south coast of the island (PRN 1654). Flints that cannot be attributed to a specific period have been found at various locations on the island.

The Neolithic period on Holy Island was represented by isolated finds and monuments. Some of the flint scatters on Penrhosfeilw Common date to the Neolithic period, but the most distinctive artefact is the polished stone axe. Nine of these have been found, all come from the northern part of the island (Lynch 1991, 383; Williams 1950a, 54; PRN 19669)². Those found closest to the study area are two axes found when excavating a hole for a turntable railway near Kingsland in 1926 (PRN 2507) (Baynes 1927), and another axe found near Penllech Nest (PRN 2506) along with artefacts (Williams 1950a, 54). A hoard of four axes (PRN 5667) was discovered near Cwm, Holyhead in the mid-19th century (Stanley 1874, 296-7). The discovery of isolated stone axes gives an idea of the spread of Neolithic activity but does not reliably indicate areas of settlement.



Plate 4. *Trefignath chambered tomb (PRN 2500)*

If chambered tombs can be assumed to have been built near settlements, or possibly settlements focused around the tombs, then these may be a better indication of Neolithic settlement locations. Just outside the southern boundary of the development is the Trefignath Neolithic chambered tomb (PRN 2500) (a scheduled monument (An11)) (plate 4). Another, more ruined, chambered tomb (Coetan Arddur (PRN 2504)) lies to the south. The Trefignath chambered tomb was excavated between 1977 and 1979 (Smith 1987b). It was partially reconstructed in 1980 and laid out for public exhibition and is under Cadw guardianship. Trefignath and Coetan Arddur are the only tombs with upstanding remains on Holy Island, but there were possibly four other Neolithic tombs (PRNs 1750, 2008, 2510, 3800). Stanley marks the chamber at Morawellan (PRN 2510) as “destroyed” in 1868 (Stanley 1868, map opposite p385), but its remains are marked on the 1924 OS County Series map, and Williams (1950b, 95), who calls the site the “Plas Croes cromlech³” recorded that one stone still remained in 1950. The area is now occupied by houses (Smith 2003⁴). A possible tomb (PRN 3800), supposed to be near Plas Meilw, should be discounted as Jones (1855, 25), who mentions it, considers it doubtful and Baynes (1910-11, 11) could find no further reference to it⁵. A possible cromlech (PRN 1750) next to Ffynnon Gorlas Farm must also remain doubtful. This is only

1 Gwynedd Historic Environment Record Primary Record Number

2 On figure 2 PRN 5668 is shown near Tŷ Du (approx. SH 242 816) where it is said to have been found rather than at the HER location.

3 The field that the cromlech stood in is marked as part of Plas Croes on the tithe map.

4 Record in database for project G1629, held by Gwynedd HER

5 Baynes places this close to Plas Meilw (Baynes 1910-11, map opposite p3), while the OS card (SH28SW 24) gives a very general reference that places it some distance away.



Plate 5. Tŷ Mawr ring ditch and overlying long cist cemetery (PRN 67896)

mentioned by Thomas Jackson (1853) and quoted by Lloyd Hughes (1942, 42), who searched for this site but could find no trace of it. The burial chamber at Gromlech Farm, Rhoscolyn (PRN 2008) is shown on Baynes' map as being extant (Baynes 1910-11, map opposite p3), but he does not discuss it. It is on the County Series OS maps until 1900 as "remains of" then on the 1924 map it is marked as "site of", so the last remains seem to have been cleared by then. There is no trace of it now (Smith 2003⁶). This chamber indicates the occupation of the southern part of Holy Island in the Neolithic, while the rest of the evidence focuses on the north.

Recent excavations have added more detail to the understanding of the Neolithic period on Holy Island. Neolithic domestic activity (PRN 69277-9) was represented under the site of a barrow at Tŷ Mawr, Kingsland, including postholes, a possible hearth and fragments of pottery (Kenney and Longley 2012, 106). Early Neolithic sherds, Middle Neolithic Fengate Ware (including a largely complete vessel), and a small number of Beaker sherds were found in trenching immediately east of Parc Cybi (Wessex Archaeology 2015, 10). These extend the Neolithic landscape as revealed at Parc Cybi, as discussed below.

Across Wales the Bronze Age is most frequently represented by funerary barrows and cairns, but relatively few of these were visible on Holy Island. A Bronze Age barrow (PRN 15692) is supposed to have been prominently situated on top of Holyhead Mountain (RCAHMW 1937, 23), though almost nothing of it now survives. Excavation (Crew 1980b, Crew 2010) showed that a second possible cairn (PRN 15691) (RCAHMW 1937, 23) was neither Bronze Age nor a cairn. There were cairns at Garn (PRN 3804) and Gorsedd Gwlwm (PRN 3798), and a cemetery of three barrows at Porth Dafarch (PRNs 1772-4). Excavation in advance of construction of the A55 revealed a ring ditch, probably defining a Bronze Age barrow (PRN 67896) (Kenney and Longley 2012) (plate 5). This is known as the Tŷ Mawr barrow, after the formerly adjacent farm, and was just to the north of the development site. This discovery demonstrated that more barrows might have existed than those visible as surface remains.

In addition to burials under cairns or barrows, occasional cists have also been found, although they may originally have had cairns. The best known is a cist found near Pen y Bonc (PRN 3802), which contained a jet necklace (Way 1867, 257-260). There appear to have been other cists that have since been destroyed, such as one on the west coast near Porth y Gwyddel (PRN 3796) (Jones 1855, 21-22) and another near Trefignath (PRN 81341) (Jackson 1853, 69).

⁶ Record in database for project G1629, held by Gwynedd HER

There are also standing stones on Holy Island. There is one within the development site, the Tŷ Mawr standing stone (PRN 2501, scheduled monument (A12)), and another to the south, next to Stanley Mill (PRN 2009). There is a rare pairing of two stones just over 3m apart, to the west at Plas Meilw (PRN 2748) (Lynch 1991). Stanley records the local tradition that there was originally a circle of stones around these two, the circle having been dismantled for building stone (Stanley 1869, 310). No trace of the circle was found in a geophysical survey around the stones (Ovenden 1990a) but the size of the circle is not known and possibly the survey did not cover a large enough area. If this was a circle of large stones then the monument was probably of a Late Neolithic rather than Bronze Age date, like the Bryn Gwyn Stones, Brynsiencyn, that were part of a circle (Smith 2013b and 2014).

Other standing stones no longer exist; one near Kingsland (PRN 3807) is known only from being marked as a “meinhir” on a map by Stanley (1868, map opposite p385⁷). The area is now built-up and the stone long gone. An erect stone (PRN 2014) at Cerrig Moelion was removed during field improvement, and Stanley (1869, 306) mentions a stone removed near Pen y Bonc, though it is impossible to know if it was an erratic or a genuine standing stone. It is likely that a number of other stones were removed unrecorded in the 19th century⁸. Some stones can be ruled out as standing stones, because they are other types of monuments or natural boulders (e.g. PRN 3797⁹, PRN 61261¹⁰ and PRN 7169¹¹).

Bronze Age settlement is difficult to locate, even with excavation, but might be indicated by the presence of burnt mounds; though it must be noted that not all burnt mounds date to the Bronze Age. Several burnt mounds were found during the work in advance of the A55 (PRNs 31804-31810) (Maynard 2012). Evidence of two others was found near Tre-gof (PRN 34742-3) (Kenney 2012b), which both returned Middle to Late Bronze Age dates (Wessex Archaeology 2015). A probable burnt mound with a stone-lined trough was excavated at Capel Gorlas (PRN 74531) (Davidson and Hopewell 2003) and another was seen in a water pipe trench near Cwm Reservoir (PRN 65534) (Oattes 2016). The distribution of burnt mounds hints at fairly dense settlement of Holy Island in the Bronze Age. Other hints come from evaluation trenching south of the Holyhead Leisure Centre, which revealed a pit resembling an earth oven containing burnt stone and charcoal (PRN 34741) (Kenney 2012b, 11) and two other pits containing undiagnostic prehistoric pottery (Wessex Archaeology 2015, 8). Bronze Age pottery was found nearby mixed into the fill of an Early Medieval corn dryer (Wessex Archaeology 2015, appendix 5, p15), so it is possible that the pits were also Bronze Age.

The Bronze Age artefacts from Holy Island do not help in locating settlements as they are mostly from a hoard and a grave. The hoard was found on the lower slopes of Holyhead Mountain, near Cwm (PRN 1758), and included bronze spearheads, a bronze socketed axe and other items, including amber beads¹² (Way 1867, 254-256). Two bronze palstave axes were also found on Holyhead Mountain (PRNs 3801, 3803). The cist grave (PRN 3802) found at Pen-y-Bonc in 1828 contained two urns, an Early Bronze Age necklace of jet and jet-like material, a jet button and bronze armlets (Way 1867, 257-260). This indicates the wealth of at least some communities on the island.

Holy Island has several notable Iron Age and Roman period sites. Holyhead is dominated by its mountain, to the north-west of the town, the summit of which is enclosed by a stone rampart wall forming the hillfort of Caer y Tŵr (PRN 1760, SAM An 019) (plate 6). A much smaller promontory fort, Dinas, on the west coast of the island (PRN 807), is also possibly Iron Age or Roman period in date. A pair of Romano-British bucket mounts were found on the site, as well as a 3rd century Roman coin (PRN 1748). There may have been another promontory fort (PRN 2509) over-looking Penrhos Beach. This is marked as a “Danish Fort” by Stanley on his map of the antiquities of the area (Stanley 1868, map opposite p385) but all trace of this has now been destroyed.

7 It is hard to locate this precisely from the map but it is clearly closer to SH 245 821 than the very rough location shown on the HER.

8 The number of stones is confused by the use of different names. Jones (1855, 24) lists standing stones in fields near the road side at “Tyn y pwll, one mile east-south-east of Holyhead” and near Tref-Arthur. The former is most probably the Tŷ Mawr or Trefnath stone (PRN 2501) and Tref-Arthur clearly refers to the ruined Trearddur chambered tomb (PRN 2504), next to what was the farm of Tre Arthur.

9 Stones known as Meini Moelion located at the base of the crags that form the summit of Holyhead Mountain and described as a “group of numerous erect rounded stones, and a line or wall of others” (Jones 1855, 24), so not standing stones.

10 A squat upright stone near Cae Alltwen, adjacent to a field boundary and more likely to be field clearance than a genuine standing stone (Evans and Reilly 2016, 37).

11 A standing stone on the coast at Penrhos is marked on the County Series maps from 1889, but as a stone not an antiquity. It might be prehistoric as suggested by Cooke *et al* (2010, 33) but it seems very odd that Stanley did not mention it as it is close to his house of Penrhos. It may be a rubbing stone for livestock.

12 Stanley (1874, 297) relates that “a great many amber beads” were found with a hoard of flint axes (PRN 5667), but it seems likely that the woman who told Stanley about this was remembering the find of the bronze hoard and the beads were the ones reported as being found with this. Either way most of the beads did not survive as “the children lost them”.

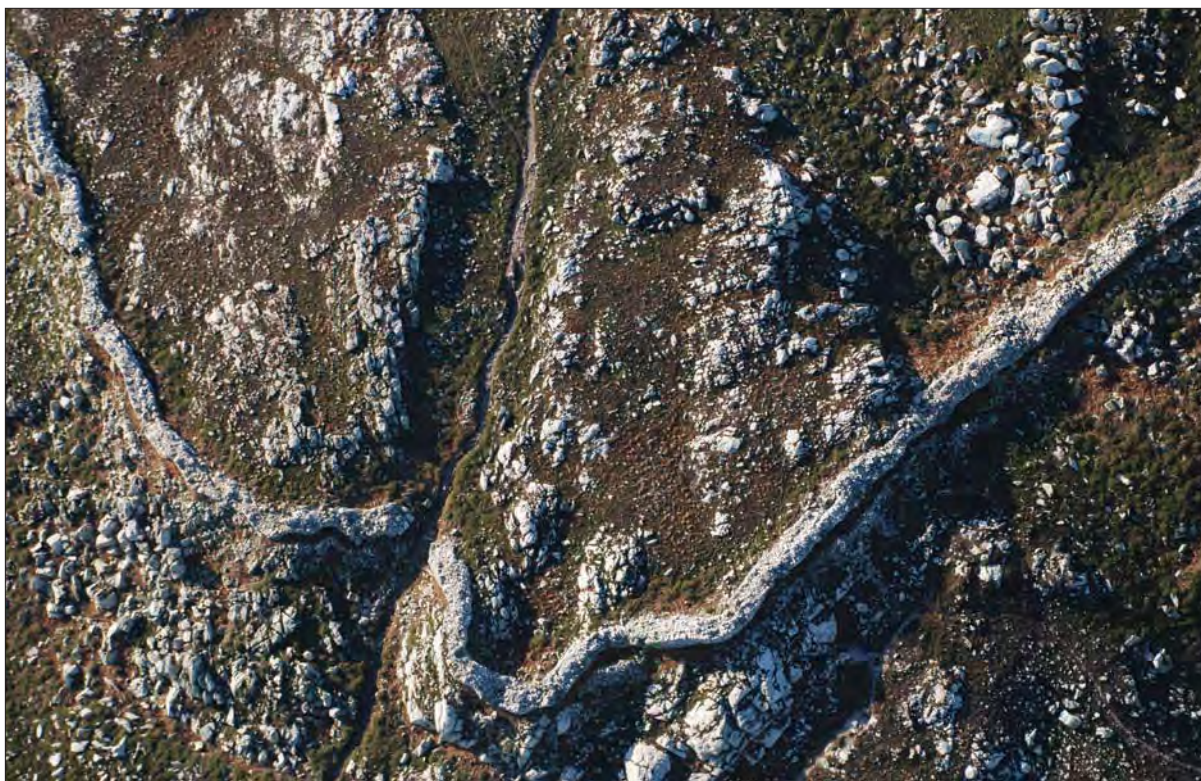


Plate 6. Entrance and walls to Caer y Twr hillfort (PRN 1760) (photograph by David Longley)

These forts were probably defensive refuges, and the population lived in more hospitable areas. There are numerous roundhouse settlements scattered across the north of the island, though only one possible example (PRN 68602) known from the south. This has been identified on aerial photographs but not further investigated. Towards the foot of the south-western slope of Holyhead Mountain is an extensive group of roundhouses known as the Tŷ Mawr hut circles (PRN 1755, 1756) (plate 7). Excavation at Tŷ Mawr demonstrated that the stone roundhouses belonged to the 1st millennium BC, but with some activity in the 3rd century AD, as well as earlier prehistoric and post-Roman settlement evidence (Smith 1987a). A similar hut group (PRN 2754) overlies the Bronze Age barrows at Porth Dafarch. The finds from Porth Dafarch dated the huts to the Roman period (Lynch 1991, RCAHMW 1937).

Late Roman Black Burnished Ware was found in a pit near Kingsland (Wessex Archaeology 2015, 9, 13), apparently isolated but not far from what was probably a roundhouse identified by geophysical survey and trial trenching (PRN 34737-8). A Roman coin hoard was found somewhere close to Parc Cybi in 1710. The coins were buried in a brass vessel, and all dated to the 4th century AD (PRN 2503).

A late Roman fort was constructed at Holyhead. The fort (PRN 1762) is a rectangular stone enclosure, that originally extended down to the shore, with round towers at the corners and walls that still stand to 4m high (RCAHMW 1937, 31-34; Hopewell 2010). There are no datable finds but the building style is late Roman (Jarrett 1969, 135-137). It is assumed to be contemporary with a signal station (PRN 3809) on the summit of Holyhead Mountain, which is dated by coins to the fourth century AD (Crew 2010). It therefore fits with threats from the Irish and Picts in the fourth century that also saw the continued maintenance and probable increase of a garrison at Segontium. The Holyhead fort probably provided a fortified landing place from which the coast could be patrolled (Casey 2010, Jarrett 1969, 27-8, 137).

A possible route for a Roman road to the fort is suggested as crossing to Holy Island at Four Mile Bridge and using part of Lôn Trefnaght (Hopewell 2007, part 2, map 107). However, there is no evidence for this and the late date of the fort means that it could not have formed part of the original road system, and was possibly supplied entirely by sea. Hopewell (2007, 25; 2016, 34) found no evidence of Roman roads on Anglesey apart from a short section running from a crossing point on the Menai Strait through the Roman trading settlement at Tai Cochion (Hopewell 2016). A short stretch of road (PRN 16047) was found at Cleifiog Uchaf near Valley. This has been suggested as being Roman and part of a road leading to the ford at the narrowest crossing point (Davidson 1999), but it does not display the typical features of a Roman military road.



Plate 7. The Tŷ Mawr hut circles (PRN 1755) (photograph by David Longley)

The extent that Roman traditions penetrated the island might be indicated by what appear to have been Roman cremation burials near roundhouses at Pen y Bonc (PRN 3808). Small circular cists were found which appeared to have contained cremated bone in pots, though the pottery was only found broken and scattered around. The pottery was certainly Roman, including some samian ware (Stanley 1869, 306-7).

Holy Island was of considerable importance in the early Christian period, with the *clas* site of Caergybi large enough to attract the attention of the Vikings in AD 961 (Edwards 1986, 24). The foundation of this monastic community by St Cybi is traditionally dated to the mid-6th century AD, and it was presumably located within the Roman fort. The earliest fabric of the present church on the site dates from the 13th century (RCAHMW 1937, 28). Next to the church stands the remains of an Eglwys y Bedd, built in the early 14th century (RCAHMW 1937, 31). Such eglwysi y beddau originally marked graves of “revered individuals or illustrious ancestors” (Longley 2009, 115) and might indicate the location of Early Medieval graves. Under the Eglwys y Bedd at Holyhead a grave was found traditionally identified as that of Serigi, an Irish chieftain who attacked Anglesey (Llwyd 2007, 101).

Angharad Llwyd relates that many graves were found while digging foundations for houses to the south of the church, and outside the walls of the Roman fort, all “containing skeletons of enormous size” (Llwyd 2007, 101). It is assumed that these were medieval long cist graves, of which there are a number of cemeteries known, or suspected, on the island. These include a cemetery of long-cist graves (PRN 11048) discovered during the construction of the A55 dual carriageway, to the north-west of Tŷ Mawr Farm. At this site the graves were located around, and cut into, the remains of a Bronze Age barrow (Longley and Kenney 2012). At Trearddur Bay another cemetery (PRN 2001) was located close to the sea shore. Excavations and antiquarian evidence show the site was, in medieval times, occupied by a small chapel dedicated to St Ffraid, and that the chapel was built on top of a mound composed largely of an earlier cemetery in use from the 7th to the 12th centuries AD (Edwards 1986, 31; Davidson 2009). Burials of a similar type have also been found at Porth Dafarch (PRN 1776) (Stanley 1876).

The church of St Cybi had several associated chapels, Capelau Llochwydd (PRN 1752), Gorlas (PRN 1761), Ulo (PRN 1765), St Ffraid (at Tywyn y Capel, Trearddur Bay) and Gwyngenu (PRN 2017); all of which no longer exist except Capel Llochwydd, of which still slight remains still survive (Davidson 2004, 19). These are mentioned in the early post-medieval period but, with the exception of Capel St Ffraid, it is hard to prove a medieval date for them (Davidson 2004, 7). Nothing more than the name is known about Capel Lugors (PRN

2016) (Davidson 2004, 21). Three of the chapels had adjacent holy wells (Capelau Llochwydd, Gorlas and Ulo), and there were other holy wells on Holy Island. These sites have claims to an Early Medieval origin, though this can very rarely be demonstrated (Parry *et al* 2011, 5). Some no longer exist such as Ffynnon Ulo (PRN 1766) and Ffynnon Cybi (PRN 1767), but others, such as Ffynnon Gorlas (PRN 32074) and Ffynnon Gwenfaen (PRN 2004), still have stone structures surviving (Parry *et al* 2011, appendix A).

Medieval settlements existed at Holyhead, Llanfawr, Penrhos and Tre'r Gof. The latter was an important farm in the medieval period, and in the 16th century was inhabited by the Gwyn family, including John Gwyn who became the High Sheriff of Anglesey (Williams 1947). Tre'r Gof also had a tide mill by the late medieval period as the earliest reference to it is of 1524 (Davidson 2000, 32). There were fish weirs around the Penrhos peninsula on the sheltered east coast of the island (PRN 7170-7172); Cerrig yr Addar (PRN 7170) having walls between rocky outcrops to turn a whole bay into a fish weir (Hopewell 2000, fig. 3). A medieval date for these cannot be proved.

The Owen's of Penrhos emerged as one of the leading landowners and most influential families within the area. Most of the land in the development area was part of the Penrhos Estate, which passed by marriage in 1763 to the Stanleys of Alderley (Ramage 1972, 1987, Richards 1940). W. O. Stanley was a noted antiquarian, recording many of the archaeological sites on Holy Island for the first time. The land was leased out as small farms. The Penrhos estate maps from 1769 onwards provide valuable historical evidence for both settlement location and changes in field systems (Bangor University Archives, Penrhos II 772). The maps show several farmsteads surrounded by small irregular fields in the area to become Parc Cybi. The early Ordnance Survey maps show that the field system remained largely the same up to the late 19th century, though some of the fields had been amalgamated. In the 19th century some fields on Holy Island were laid out on a new alignment, partly as a result of the construction of both Telford's London to Holyhead road and Stephenson's Chester to Holyhead Railway. There was no Parliamentary enclosure of open fields on Anglesey, as occurred in other parts of Britain at this time, but some common land was enclosed by Private Act (Carr 1982), such as the small areas of common land around Tŷ Mawr enclosed in 1861 (Anglesey Archives, WPE 68/128). There is evidence to show that some farmsteads were rebuilt on new sites during the 19th century and in the mid-20th century some of the farms were amalgamated and the farmhouses subsequently demolished. This process increased following the purchase of the land in the 1960's by Anglesey Aluminium.

The importance of Holyhead as one of the principal ports for Ireland increased in the reign of Elizabeth I, when it became the departure point for the Royal Mail to Dublin. During Oliver Cromwell's Commonwealth Holyhead was garrisoned and regular packet boats sailed to Ireland (Hughes and Williams 1981, 19-31). The port subsequently grew until, by the early 19th century, it was the principle port for Ireland.

By the late 16th century Holy Island was already joined to Anglesey by a bridge, the forerunner to the Four Mile Bridge. This bridge is shown on Saxton's map of Anglesey and Caernarvonshire of 1578, and on Speed's map of Anglesey published 1611 (National Library of Wales, Digital Gallery) (Evans 1972). However John Ogilby's 1675 map of the road from London to Holyhead and a late 18th century estate map (Bangor University Archives, Penrhos II 806), show that routes across the sands continued to be used at low tide (figure 5).

In 1765 the road from the Menai ferries to Holyhead was turnpiked, and much improved (Ramage 1987). However, transport was still difficult until Telford built his new London to Holyhead road (the A5), which arrived on Holy Island in 1823. The Stanley Embankment (grade II listed, 20074) carried the road over the Afon Lasinwen, the tidal strait between Holy Island and Anglesey (Gwynedd Archaeological Trust 1997). The construction of the embankment created the enclosed body of water now referred to as the Inland Sea. In 1846-8 the railway line was constructed along the southern side of the embankment (Gwynedd Archaeological Trust 1996, 1997), and major improvements were made to the harbour throughout the 19th century (Hughes and Williams 1981, Gwynedd Archaeological Trust 1993, 1997).

In both the First and Second World Wars Holyhead was strategically important, as it was on the route both to Ireland and to the port of Liverpool. A naval base with a submarine hunting flotilla operated from Holyhead Harbour in the First World War to protect shipping on these routes (Kenney 2019) and the Naval Base was reactivated in the Second World War for further anti-submarine activity (Dalton 2013, 65-66). Pillboxes and machine-gun positions defended the harbour in the Second World War but there was also a line of pillboxes across the island from Trearddur Bay to the Inland Sea, preventing enemy troop movement on Holy Island and defending the approaches to Holyhead (Brown *et al* 1995). Dalton (2013, 82) refers to these as "The Mini-Castles". They were faced in local stone and had stones round the top for a crenelated effect. These mimicked the crenelated gate

posts seen on the island to make them less intrusive. The line starts at the south-western end at Trearddur Bay and runs across to the Inland Sea, with one previously unrecorded pillbox (PRN 36495) close to the development site (Kenney 2000, 16).

Project background

An archaeological assessment covering an area larger than that finally proposed for development was undertaken in 2000 (Kenney 2000, GAT 389). This was followed in 2001 by an initial programme of field evaluation (Hopewell and Davidson 2001 (GAT 428), Davidson 2002 (GAT 459)), which revealed a high density of archaeological sites, for which further archaeological evaluation was required before their full extent and importance could be assessed. The evaluation was undertaken as a staged process, of which the first stage was a geophysical survey (Donaldson 2004) followed by further trial excavations (Davidson and Roberts 2004 (GAT 541), Davidson *et al* 2004 (GAT 554) and Davidson and Roberts 2005 (GAT 561)). The assessment and evaluation work identified 43 possible sites across the development area. A watching brief was carried out on geological test pits dug in 2006 (J. A. Roberts 2006, GAT 656), adding further information. Trial trenching was also carried out in 2004 on the route of a foul water main running through the site (Smith 2004 (GAT 524)).

Outline planning permission was granted for the development (application number 19C842A/EIA) with a condition covering the archaeological issues. The Site-wide Archaeological Strategy written by Atkins covered the works necessary to comply with the condition. This aimed to approach the site as a complete landscape and specified Strip, Map and Sample (SMS) Investigation for all areas that would be affected by large-scale ground disturbing construction activities. Gwynedd Archaeological Trust was appointed to carry out the work and submitted a Site-Specific Project Design for Soil Strip and Archaeological Evaluation. The work started on 6th November 2006. Phase 1 Part I of the fieldwork was completed on 30th June 2008 and a second part of excavations commenced on 7th September 2009 focusing on archaeology already uncovered but preserved *in-situ* in Areas K9 and F1b, as well as the previously unexcavated Area J3. Part II of the fieldwork finished on 26th February 2010. A watching brief was carried out on a cable trench dug by Scottish Power on 29th March 2010 (Cooke 2010 (GAT 862)). All the work was monitored by Gwynedd Archaeological Planning Service on behalf of the Local Planning Authority to ensure that the planning conditions were fulfilled.

A design for the Assessment of Potential for Analysis of the material resulting from the 2006-2008 excavations was submitted in August 2009 and work started in that month on this analysis. A design for the assessment of material from the 2009 to 2010 excavations was submitted in March 2010 and resubmitted in April 2010. This work commenced in March 2010. The results of both assessments were combined into an overall assessment of potential report (Kenney *et al* 2011) submitted in June 2011. The final post-excavation work was delayed for some years, then the work was put out to tender by the Welsh Government in December 2017 and the contract was won by GAT and work commenced in June 2018.

The roads and other infrastructure across the site were built during the duration of the archaeological excavations in 2008. Since then development has taken place on areas that were archaeologically excavated and recorded, with

Plate 8. A view of Parc Cybi in 2019



some further archaeological work being necessary in one case. This work was carried out by Archaeology Wales in May 2014, and it involved a strip and map evaluation with palaeoenvironmental sampling in Area E3 (Jenny Emmett, Gwynedd Archaeological Planning Service, pers. comm.). As of 2019 a truck stop and a hotel had been built on the Parc Cybi site (plate 8).

Large parts of Areas H, G and K5 remain uninvestigated in 2019, but any future development will need to be preceded by a programme of archaeological fieldwork.

AIMS AND OBJECTIVES

The original object of the programme of work was to mitigate the impact of the development on any archaeological remains. This was achieved by undertaking a phased programme of works comprising:

- a review of existing information,
- a phase of evaluation involving small scale geophysical survey and trial trenching,
- further geophysical survey
- a second phase of evaluation with additional trial trenches to further explore features found in the first phase and in the extended geophysical survey
- a combined programme of strip, map and sample excavation,
- followed where necessary by detailed area excavation.

All works were excavated in a competent and professional manner, in accordance with ClfA standard archaeological procedures current at the time (IfA 2001). The objectives of the excavations were:

- To make a full graphic, photographic and written record of the archaeological evidence in a manner whereby the extent, nature, form, date, function and relationships of archaeological features and/or deposits can be established, sufficient to achieve “preservation by record” in advance of construction;
- To identify and investigate the potential of the evidence to address the project research aims and objectives;
- To communicate the results of the project to the public, the Client and other stakeholders;
- To prepare an archive of the project, and to deposit the archive and finds with the appropriate local museum.

A staged and flexible approach to fieldwork was applied, creating an iterative framework to site investigation, and allowing for the early assessment of the quality of the archaeological remains and the updating of the research aims and methodologies where appropriate.

The initial top soil stripping exposed the character and nature of the archaeological remains and allowed the assessment of their potential to address the project aims. The primary aims were to:

- to expose archaeological remains across the whole archaeological site by the mechanical removal of topsoil and any masking subsoil;
- to create a pre-excavation plan of exposed deposits and features;
- to collect datable/activity specific material from the surface of exposed deposits;
- to confirm the priorities for further archaeological investigation.

Where significant archaeology was identified further archaeological investigations were designed to recover data sufficient to allow for “preservation by record” and to address the research aims of the project with regard to establishing the extent, date and character of the archaeological remains. The primary aims of this stage were:

- To characterise the overall nature of the archaeological resource and to understand the process of its formation;
- To create a detailed plan of all archaeological features;
- To establish the character of those features in terms of cuts, soil matrices and interfaces;
- To recover, where appropriate, across the archaeological site representative eco-factual and palaeo-environmental samples to provide evidence of function and past land-use;
- To establish in outline a dated sequence of structures and/or deposits and thus to define changes in site organisation over time

The objective of this phase of the project is to ensure the long term curation of the recovered data, and its dissemination in a form suitable to its academic value in line with nationally defined guidelines.

EXCAVATION METHODOLOGY

The technique of Strip, Map and Sample involves the examination of machine-stripped surfaces to identify archaeological remains (plate 9). These are evaluated and information gathered to inform a Further Archaeological Works Design (FAWD) defining methodologies for the excavation of significant archaeological deposits and features where these are present.



Plate 9. Machine stripping topsoil and ploughsoil

All areas that would be affected by large-scale ground disturbing construction activities were subject to Strip, Map and Sample investigation. This started with the main access road and the area of the contractor's compound and expanded out to several of the development plots, but there remain significant areas still to be investigated.

Areas not to be disturbed by construction or groundworks were clearly identified. Where stripping revealed no significant features or deposits a completion statement was written for the area and, once this had been accepted, the development in this area could proceed. Where significant archaeology was identified an FAWD was written and further work carried out under this. The completion statements for these areas were written once the further work had been satisfactorily completed.

Over most of the site the turf and topsoil was removed in advance by a 360 degree tracked excavator fitted with a 2m wide toothless ditching bucket under intermittent archaeological monitoring to ensure that the soil removal stopped above any levels containing potential archaeology. Removal of the ploughsoil was undertaken by a 360 degree tracked excavator fitted with a 1.8m or 2m toothless bucket under the continuous monitoring of an archaeologist (plate 10). Machine stripping ceased when archaeologically significant deposits were encountered, or when the topsoil and ploughsoil had been removed to the underlying glacial till. Stripping was undertaken in such a manner as to ensure that no damage was caused to surfaces that had already been stripped, nor to archaeological surfaces that had yet to be revealed.

Plate 10. Machine stripping being monitored, with Holyhead Mountain in the background



Features revealed by stripping were assessed to determine whether they are anthropogenic or natural. Where necessary this involved hand cleaning areas and limited test excavations in order to produce a plan of the revealed features that could be used to define and quantify the second stage of formal and detailed excavation as defined in a Further Archaeological Works Design.

A Total Station Theodolite was used for generating a pre-excavation Computer Aided Design (CAD) base plan of the exposed archaeological features. This plan was based on national grid co-ordinates from the start, with the use of a survey quality Global Positioning System (GPS) to locate survey stations.

Where significant archaeological features or deposits were identified a Further Archaeological Works Design was submitted detailing the works to be undertaken as part of the excavation phase, and the methodology for undertaking the work. The Further Archaeological Works Designs allowed for intensive cleaned, excavation and recording; involving full hand excavation, detailed hand drawings at 1:20 or 1:10 as appropriate and a full photographic and written record.

Harding (2009) has criticised such strip and map techniques now popular in British archaeology for the loss of information that occurs through over machining. It is impossible to counter such criticisms as such loss clearly does occur. There are several places on the present site where over machining caused the loss of potential ground surfaces and possibly floor layers. Ideally the Early Neolithic building would have been stripped by hand from immediately below the turf layer. However, as the main roundhouse settlement was defined by substantial stone walls machining stopped at quite a high level and loss in the middle of this area must have been small although some peripheral areas have suffered. Losses can also occur if the machine watcher does not remain vigilant, as was seen at Parc Cybi when a burnt mound was partly machined away in error during evening working. These are all serious faults to this methodology but against this should be placed the practicality of identifying the archaeology over such a large area. Alternative techniques such as geophysical survey or trial trenching are unlikely to have identified the Early Neolithic building, and trial trenching also suffers the risk of over-machining. Whilst some archaeology can be missed or lost through strip and map, the technique has revolutionised the range and detail of archaeology found on large development sites, and it is believed that the use of this technique was the most efficient and appropriate for the site at Parc Cybi.

The areas completely recorded are shown on figure 6, which also shows areas still to be investigated and those to be undisturbed by the development. The site records are organised by area and these refer repeatedly to these areas and area sub-divisions defined as shown on this figure.

Where contours are used on a figure of the site these are from a survey carried out of the site in advance of excavation by Atkins and supplied by Welsh Government. The contours are of the ground surface before works and not of the stripped surface of the excavated areas but they indicate the general topography.

EXCAVATION RESULTS

Introduction

The sites described in this section are those that were identified during the strip, map and sample process as requiring detailed excavation. They ranged in date from prehistoric through to the 20th century. The earliest sites were those of Mesolithic date, and though finds of this date were relatively few, they form an important addition to those already known. Neolithic sites were relatively numerous, and included a rectangular Early Neolithic building and both Early and Late Neolithic activity in other locations across the site. A burnt mound proved to date to the Beaker period, and some Beaker pottery was also found. There was a Bronze Age complex of monuments in the northern end of the site and other Bronze Age activity was possibly represented by a timber roundhouse. An Iron Age settlement with stone roundhouses was located in the middle of the site and other buildings were excavated which were also of an Iron Age date. Traces of a trackway and field system were associated with a building complex of Roman date. A long cist cemetery with smithing activity within it was located on top of a small hill, and proved to be of late Roman date. The Early Medieval period was represented by several corn dryers, as the only surviving traces of settlement of that period. The development of the post-medieval landscape with several small farms could be traced through the buried remains.

The site was divided into development plots and each plot allocated an identifying letter; because parts of these plots were investigated and signed off at different times the plots were often subdivided. The methodology used during the strip and map exercise and during subsequent excavation allowed for identification by plot and sub-plot number, and all archaeology was recorded and described by its plot identifier. In contrast this report aims to treat the archaeology chronologically and not by plot area, however the plots were so integral to how the site was recorded that they are still used in this report to aid the location of the features.

The general location of prehistoric, Roman and medieval sites are shown on figure 7 and post-medieval sites and field systems are shown on figure 8. All major sites have been allocated Primary Record Numbers (PRNs) from the Gwynedd Historic Environment Record, and these are shown on the plans. Appendix II lists all the PRNs with a brief description.

Mesolithic

See figure 7 for locations

Mesolithic activity was represented by a small number of microliths (volume 3 Fig V.1.1). These were scattered across the site, sometimes residual in later contexts, and do not suggest a focus for activity within this period. A single Late Mesolithic microlith (sf¹³947) was retrieved from the gravel slope above a large burnt mound in Area E (PRN 31582). It had no direct relationship with the mound itself but rather it is indicative of earlier activity in the vicinity. There were also two microliths (sf909 and sf5014) from a natural hollow in Area E that contained much Early Neolithic activity (PRN 18406). These two microliths were found when cleaning the surface of the natural loess deposit in this area and must have been residual within the soil when the hollow was occupied. However, a radiocarbon date of 4490–4360 cal BC (SUERC-83278) from a pit within the main focus of activity supports the suggestion that this hollow was also used in the Mesolithic period, though to a much lesser extent than in the Neolithic period. Sf909 was examined microscopically for use wear and cutting wear was identified along the long edge of the piece, indicating that it might have been mounted as part of a compound cutting tool, not a projectile.

In Area B2 a pit (91690) within a group of post-medieval pits produced a small quantity of metalworking waste and a scalene triangle, narrow blade microlith (sf 4194). In the adjacent Area F1 a narrow blade microlith (sf 4439) was found in the fill of ditch 92615 that produced a Bronze Age gold ring. Both microliths are presumably residual, having been present in the soil and incorporated in the later features.

A posthole, part of a group forming a possible slight structure in Area J (PRN 31578), produced two Mesolithic dates, both on charred hazel wood. These dates (4350–4250 cal BC (SUERC-87066)) and (6640–6500 cal BC (SUERC-87067)) completely different and cannot be used to provide a reliable date for the posthole but along with a date of 4330–4070 cal BC (SUERC-81338) from a nearby feature they might indicate general Mesolithic activity in this area. These features are described in more detail below.

The most significant group of finds were some flint and chert pieces (PRN 31627) recovered from a shallow linear hollow in the southern part of Area H (SH 2574 8048) (figure 9). The hollow (50412) measured 2.5m by 0.5m and was only 0.14m deep and it contained a flint core which had produced at least two small blades (sf4534.1) and a narrow blade microlith (sf4534.2), along with a large chert flake with microchipping on two sharp edges (sf4532). Feature 50412 was aligned north-north-west to south-south-east between two post-medieval ditches (50429 and 50410). Another linear hollow (50414) ran nearly parallel to it about 1.5m to the west. The later ditches were aligned north-west to south-east, with another joining at right angles from the south-west (50456). The ditches cut 50412 and 50414; the latter seems to have extended for at least 9m, although it was discontinuous. These parallel linear hollows could have been furrows from an earlier field system preserved under the later boundaries and protected from later ploughing. Feature 50414 contained small pieces of clay pipe and late pottery, suggesting a late date. It is likely, therefore, that the lithics were not *in situ*, though for them to have remained together suggests that they had not been much disturbed, and this indicates a focus for Mesolithic activity.

Early Neolithic

Early Neolithic rectangular timber building (PRN 31570)

See figures 10 to 16

Introduction

On a plateau in Area H at an altitude of 17m OD (SH 2574 8053), a rectangular arrangement of features was identified, cut into a loess-like natural silt (02069). Immediately to the south was a substantial schist outcrop (plate 11). Recorded as Group 50100, the features comprised a number of postholes, straight gullies, and internal and external pits and hearths that appear to represent the remains of a rectangular timber structure (figure 10). A large number of finds were associated with the features including black chert and flint lithics and Early Neolithic ceramics. A relict soil layer was also recorded at the eastern end of the building, which contained similar pottery and stone artefacts.



Plate 11. Early Neolithic rectangular timber building from the north with rock outcrop behind

The building was orientated WSW-ENE and measured approximately 15.5m long and 6m wide, with the width of the building being constant along its length. Five pairs of posts formed two parallel rows arranged symmetrically about the long axis of the building, representing a central aisle (figure 11). A slightly more irregular pattern of posts and plank slots formed the side and end walls of the building. The structure appears to have been subdivided internally into three compartments separated by a slot trench and a row of features. However, two thirds of the structure closely resembles other comparable Neolithic buildings in Britain and Ireland with three bays defined by the locations of the aisle posts. The eastern end appears to have been an addition to this traditional plan.

There were features around the building, particularly a group to the north, some of which may have been contemporary with the building. Other features were identified to the south on the southern side of the rock outcrop, but their significance could not be established and they could not be associated with the use of the building.

The location of pit hearths cutting the remains of structural elements of the building indicates that these were used after the building had been demolished, possibly as part of a closing ritual. The long axis of the structure was aligned on the Trefignath Neolithic chambered tomb, which stands 97m to the ENE and is visible from it just past the northern side of the rock outcrop (figure 147).

Relict soil layer

The remains of a Neolithic occupation deposit or relict soil layer (02093) were preserved at the eastern end of the building. This was identified due to the high density of finds visible in the overlying deposits during the machine stripping of the site. It survived in two irregularly shaped areas; the largest in the eastern compartment of the building measured approximately 4m by 3m, with a smaller patch further west. It consisted of a layer of grey brown sandy silt, which contained small stones and charcoal flecks. The remains of the deposit were excavated by hand and it was found to contain quantities of artefacts, predominately fragments of Neolithic ceramics and black chert and flint stone tools, flakes, and debitage. As the deposit was removed, the edges of features at this end of the building began to emerge against the orange silty natural (02069). Though it was initially assumed that this layer sealed the features below, many of the packing stones from the wall slots and postholes protruded through the top of it and it seems likely that all of the features were in fact cut through it. This deposit appears to have been a mixture of the lower ploughsoil and an *in situ* relict soil deposit, which could not be distinguished. Many of the finds from this deposit actually came from directly over features revealed by excavation of the layer and can probably be related to the features rather than a general occupation layer.

Aisle posts

The building appears to have had two rows of paired posts to support the roof. Ten postholes were arranged into five opposing pairs that formed two parallel, WSW-ENE aligned rows (50033, 50037, 50039, 50062, 500167, 50173, 50178, 50179, 50182, plus one presumed under pit 50145) (figures 12.1-12.5). The two rows were spaced around 2m apart, and both lines of posts ran the entire length of the building, defining the central aisle of the structure.

The western-most pair of aisle posts (50039 and 50033) formed part of the western gable end wall, and the eastern-most posts (50182 and 50173) were part of the eastern gable end. The central two pairs occurred on what appeared to be partitions within the building and there was an additional pair of postholes in the western compartment. Initially it was thought that (50178) on the western partition lacked a northern counterpart but a hearth pit (50145) was located just where the posthole should have been. The remains of a possible truncated posthole were recorded as part of the base of the hearth, and it seems likely that this was the very base of an aisle posthole otherwise destroyed by the later pit.

The postholes were all sub-circular in plan and generally no more than 0.80m across, and mostly much smaller, although those on the eastern partition (50167 and 50179) were larger, at about 0.95m in diameter. Most of the aisle postholes were no more than 0.30m deep, although posthole 50179 was 0.54m deep. Posthole 50037 was only 0.15m deep (figure 12.1) and this and other features in the western end of the building appear to have



*Plate 12. Aisle posthole 50179
half sectioned*

been truncated. All the postholes were filled with red-brown sandy silt, and most had some packing stones. Posthole 50179 had the remains of a post-pipe and showed no indication of the post having been removed on the abandonment of the building (figure 12.5) (plate 12). Other postholes, such as 50182, were disturbed and may have had their posts removed.

In the top of posthole 50033 was a large, horizontally laid slab of angular schist more than 0.50m long (plate 13). It filled a large proportion of the cut, and must have settled in place after the post had been removed. This posthole had a smaller posthole (50097) on its eastern edge, but this seemed too small to be a replacement for 50033. Postholes 50179 and 50167 were much larger than the other aisle postholes, with the post depression in the base of 50167 suggesting a post 0.30m in diameter (figures 12.4 and 12.5). It is probable that these originally supported a gable end and that the building was later extended to the east as will be discussed below.



Plate 13. Horizontal stone overlying posthole 50033

The largest quantity of finds came from the gable end postholes with postholes 50039, 50173 and 50182 containing significant amounts of Neolithic pottery sherds, black chert flakes and some flint, but only a single sherd was recovered from the fill of posthole 50033. A smaller quantity of finds came from the other aisle postholes, mostly from upper fills that may represent erosion into the postholes after abandonment of the building. Finds also included occasional tiny pieces of knapped crystal quartz, small quantities of burnt bone and some charred hazelnut shells. In the upper fill of posthole 50167 was a struck flake of Graig Llwyd stone (sf2212), and in 50173 was a chip from a polished stone axe (sf2017).

Walls

Gable Ends

The posthole 50051 marked the north-western corner of the structure, and was at the northern end of a row of four postholes and associated features. The row was approximately 5.71m long, aligned NNW-SSE, and formed the western gable end of the building. The south-western corner of the building was marked by posthole 50236. Both postholes were sub-circular, about 0.5m in diameter and up to 0.2m deep. They were filled with orange-brown sandy silt. Posthole 50051 contained a number of large cobbles up to 0.36m long but posthole 50236 had little evidence for post-packing material.

A narrow, straight gully (50047/50043) ran between the aisle postholes (50033 and 50039). The gully was poorly defined and it was excavated as two separate features (50047 and 50243), although it was almost certainly a single feature. Its northern end was up to 0.30m deep, but the southern end was only 0.09m deep, with a V-shaped profile. The gully contained occasional large stones, and it is probable that it held planking and that the stones providing some packing on the wider parts of the gully.

The similarity between the fills of the slot and the aisle postholes also meant that no reliable stratigraphic relationships

could be discerned. All appear to have been filled with similar material, very likely contemporaneously. Flakes of struck flint, black chert and quartz came from posthole (50051), but posthole (50236) and the gully produced no finds.

The majority of the eastern gable end of the building was defined by a straight gully along with the aisle postholes 50173 and 50182. The gully (50166) was around 4.07m long, steep-sided and between 0.08m and 0.20m deep. Though it had a general NNW-SSE alignment the gully curved more towards the north at the northern end, where it was generally deeper and broader, with a width of up to 0.78m. The southern stretch of the gully, between postholes (50225) and (50171), was between 0.30-0.05m wide.

The fill of the gully was a dark, greyish brown sandy silt, which contained frequent flecks and fragments of charcoal, lithics and pottery. Numerous stones, some undisturbed and resting vertically against the sides of the cut, suggested that this was a packing deposit intended to support planks (plate 14). Like at the western gable end, there was a significant gap between the gully 50166 and aisle post 50182 and the small posthole (50210) that seemed to indicate the north-eastern corner to the building. However, at its southern end the gully joined directly to posthole 50225, which was 0.28m deep and contained disturbed packing stones.



Plate 14. Early Neolithic rectangular timber building from the eastern end showing the packing stones in the eastern gable end

Feature 50174 was interpreted on site as a posthole and contained disturbed packing stones, but its position between the aisle posts makes little structural sense and it is likely that it was a deeper part of gully. A small posthole (50164), 0.36m long, 0.27m wide and 0.13m deep, containing packing stones, just clipped the eastern side of gully 50166. This may have provided additional support to the outside of the wall and was presumably added after the construction of the wall.

Both gable ends were therefore supported by substantial paired posts, with those at the eastern end being larger. Between the posts were gullies that probably held timber planks, and at the eastern end this plank wall extended to the south-eastern corner of the building. If the gullies did hold plank walls then there could not have been central doorways in the gable walls, but there could possibly have been doors in the northern end of the eastern gable or at either end of the western gable. Some of the packing stones were disturbed and may suggest the removal of some timbers, though the disturbance could have happened long after abandonment of the building.

Long walls

The southern side wall of the structure was defined along most of its length by postholes, however in the eastern third of the building it was marked by the remains of a straight wall trench (50101), which was parallel sided, 2.67m long and 0.35m wide. It had fairly steep sides, a flattish base and was between 0.07m and 0.12m deep. This trench was filled with a firm grey sandy silt containing some charcoal and a number of pottery fragments and chert flakes. It also held some large rectangular schist fragments, up to 0.30m in length, that were consistent with a packing deposit.

Three postholes were associated with wall trench (50101). Two fairly small postholes (50156 and 50150), measuring about 0.20m in diameter, had been cut centrally within the wall slot. Posthole 50150 cut through a much larger posthole (50084), which was much wider than the wall trench and appeared to have housed a substantial post (plate 15). It was oval or sub circular in shape, 0.60m long and 0.54m wide and 0.30m deep. It was filled with a disturbed stone packing deposit. This seems to have been a major structural post, whereas the smaller ones are interpreted as lighter wall supports.



Plate 15. Wall slot 50101 with posthole 50084 at the eastern end: partially excavated

Only two more postholes survived on the remainder of the southern wall line, both marking bays, and so presumably deeper than intermediary posts that have not survived. These postholes (50200 and 50067) were about 0.45-0.46m in diameter and up to 0.15m deep. The best evidence for packing stones came from the fill of posthole 50067 in the form of a single flat schist slab, 0.20m long, resting against the side of the cut. This fill (50068) contained a flint core, a large Neolithic rimsherd and two fragments of rock crystal, whilst a rimsherd, another smaller fragment of pot and a single piece of quartz crystal were recovered from posthole 50200.

A large flat stone was embedded in the natural silt near the western end of the southern wall. Despite some finds being discovered in an adjacent animal burrow (50151) this did not seem to be part of the wall, and was entirely natural in origin.

A series of postholes formed the line of the northern wall of the building. They were more numerous than those that made up the southern wall, but there appeared to be gaps towards the eastern end of the wall where postholes might be expected but were not found. From west to east these postholes were 50051, 50239, 50070, 50072, 50260, 50276, 50221 and 50210. These were generally no more than 0.50m across and between 0.07m and 0.18m deep (figure 14.2). Their fills were mid to dark brown sandy silts, and some contained occasional packing stones, but others had no stones and only their presence on the proposed wall line suggested that they were postholes rather than small pits. There were generally few finds from these features but some did contain occasional flint and chert flakes and odd sherds of pottery.

Feature 50258 lay just off the perfect line of the north wall and may represent a trace of one of the missing postholes. It was roughly oval in shape, and probably 0.57m long, 0.26m wide and 0.11m deep. Its fill was difficult to distinguish from the natural silts, but it did contain at least one vertically set stone that may have been post packing. Two small fragments of pottery (sf1772 and 1770) were recovered from the base of the fill.

Some confusion was caused towards the eastern end of the wall by a large stone embedded in the natural. Some artefacts that had worked their way into the natural, probably due to animal burrowing, and three intercutting features (50221), (50228) and (50219) were excavated in this area but only (50221) proved to be a genuine archaeological feature and a posthole on the northern wall.

Internal divisions

The building was divided into four bays by the aisle postholes. These bays were of unequal lengths with the western two being smaller than the eastern two. Measuring between the centres of the postholes the western bay was about 3.0m long, the next 2.5m, then 4.8m and the eastern bay was 4.5m long. The proportions of the three western bays can be paralleled in the layout of other Early Neolithic buildings.

In all but the western most bay the divisions were enhanced by structures joining to or running between the aisle posts. A 3.6m long straight gully (50176) ran most of the way across the interior of the building. The gully was broad, up to 0.80m wide in places, but only 0.08m deep. Its sides were steep sides and the base was rather irregular. There was a gap between the gully and the side walls, with a 0.1m deep posthole or hollow (50205) marking the southern end of the gully, but no matching posthole at the northern end. Posthole 50065, 0.1m deep, may have supported the southern end of the partition, so continuing it to the southern wall (figure 14.3).

Though the aisle posthole 50178 appeared to cut through, and therefore post-date, the silting of gully 50176, it is likely that both the posthole and the internal division were in contemporary use.

Further east several features were aligned suggesting another partition. The southern aisle post (50167) was joined to the southern wall by a line of three closely spaced postholes ((50199), (50196) and (50187)), between 0.13 and 0.17m deep, apparently set in a shallow trench. A number of schist slabs in their fills seemed to be post packing stones. Early Neolithic pottery sherds and flint flakes and debitage were recovered from the fills of the three features; the vast majority coming from posthole 50196.

No trace of a similar partition was found on the northern side of the building, but the north-eastern part of the building less well-preserved than the remainder of the northern wall. The aisle posts on this line were very much larger than the other internal aisle posts and were more suggestive of gable end posts. It is possible that this was originally the eastern gable before the building was extended.

Just inside and parallel to the eastern gable end wall was a further slot or gully (50232/50136) (figures 10 and 15.4). This was 2.6m long and ran perpendicular to slot 50101 from posthole (50084), and was truncated by hearth (50133). It was about 0.50m wide, 0.15m deep at the southern end and 0.25m deep further north, with gently sloping sides and a concave base, and had few packing stones compared with gully 50166. There were more stones in the northern end and there may have been a posthole here but this could not be conclusively identified as a separate feature. The slot contained a few fragments of pottery, and black chert and flint flakes.

Two postholes (50139) and (50138) were cut into the western edge of the southern part of slot 50232. These were rather elongated, about 0.7m long and 0.3m wide; both were quite shallow, 0.10 and 0.15m deep. These postholes may have been related to a partition structure within the slot.

Internal features

There were two fairly substantial postholes (50085 and 50087) in the western part of the building, between the aisle posts and the south wall. These were c. 0.5m in diameter and up to 0.28m deep (figure 14.4). The post in Posthole 50087 may have been dug out. A pit (50044) seemed to cut the top of the posthole but the clean silty fill of the pit was indistinguishable from the fill of the posthole and seemed to be the result of erosion of the natural silts. The hole may therefore have been dug to remove the post and it was left to fill slowly. However the remaining hollow was backfilled with a charcoal-rich deposit (02100) possibly relating to the use of the pit hearths discussed below (plate 16). The lower part of posthole 50087 was still quite well-defined and contained a few



Plate 16. The upper part of pit 50044 with charcoal backfill 02100



Plate 17. Pit 50044 and posthole 50087 fully excavated

surviving packing stones (plate 17). Posthole 50085 also had packing stones and in the top was a broken mortar (sf1204) was laid horizontally, presumably placed after the post was removed. These postholes were substantial but did not have a structural function.

Immediately east of the partition 50176 was what appeared to be a double posthole (50248), which was up to 0.19m deep, seemed to be formed of two conjoined postholes. To the north, in a comparable position, was 50050, which was very truncated and disturbed but may also have been formed by two joined postholes. This feature contained two large stones, although they were lying horizontally and not upright like *in situ* packing stones. These two features seem to have been related to the internal partition. There were also smaller post and stakeholes in the western end of the building, including posthole 50143, which was 0.25m deep, with good packing stones (figure 14.1), and the slighter posthole (50058), only surviving to a depth of 0.07m but with some packing stones remaining. Feature 50250 may have been a stakehole but was only 0.06m deep, and feature 50254 was similar but 0.12m deep.

There were several more or less convincing hollows and shallow pits within the building. Many contained finds, but some were probably no more than natural hollows retaining some of the occupation/relict soil layer. These features were rarely more than 0.1m deep and had gradually sloping sides. However, feature (50245), in the end of the building was 0.15m deep, and feature (50054) contained a number of burnt stones as well as the usual finds. Feature 50107 was a rather irregular cut, 0.22m deep, and filled with large stones.

A number of features in and around the structure proved to be natural hollows or root holes, although some of these features contained finds. A narrow straight gully (50272) that ran at an angle across the western bay was probably not related to the building and may have been a plough scar or animal burrow.

Central pits

(Figure 10 and inset)

In the 1.3m wide gap between the two aisle postholes (50179 and 50167), two pits (50120 and 50092) were identified. Feature 50092 was a large, sub-circular pit approximately 0.95m in diameter and 0.22m deep with a steep sided, bowl-shaped profile (figure 15.1). Six or seven large sub-angular and sub-rounded schist and granite stones (50091) had been very deliberately placed flat around the base and sides of the pit. One of these stones (sf1202) was a saddle quern placed face down on the northern side of the cut. A further large stone had then been set on the base of the pit at its centre, and together with the others, created a sort of very rough surface or lining of closely packed stones (plate 18). The voids between the larger stones had then been filled with smaller cobbles and stones, some of which had been set almost vertically, producing a very carefully and purposefully created, stone-filled pit. From the silt between the stones were recovered a utilised piece of black chert and at least 17 very small pieces of Neolithic pottery.

A large flat slab of schist (50121), 0.84m long, capped another, adjacent pit (50120) (plate 18). The sub-rectangular pit (50120) that it covered was 0.81m long, 0.62m wide and 0.26m deep. Three smaller flat schist slabs (50119) had been placed upright against the straight, vertical sides of the cut, fairly evenly spaced around the cut (plate



Plate 18. Stones filling pit 50092 and slab 50121 over pit 50120



Plate 19. Pit 50120 fully excavated showing stones set on edge

19, figure 15.3). The large schist slab (50121), rested on these, almost completely sealing the deposits within. The base of the pit was filled with a thin iron panned deposit. The remainder of the fill was a soft brownish grey clayey silt with fragments of charcoal.

The pit contained relatively few finds, most of them small, including fragments of flint and chert, a couple of small sherds and crumbs of Neolithic pottery, and a tiny piece of quartz crystal. Some small, much later finds, including a fragment of glass and a piece of cinder, in the base of the pit suggest some animal disturbance introducing intrusive items, and it maybe that few of the Neolithic finds were deposited in the pit during its use.

The functions of these two features are unclear. The stone fill of feature 50092 was too dense for it to have been a posthole, but the cut seems to have been deliberately filled with stones. Pit 50120 was not stone-lined like a cist and contained no evidence of a cremation. It could have been a domestic storage pit, capped to allow access over the top. Despite their proximity, the stratigraphic relationship between 50120 and 50092 was not established. The fact that the capstone (50121) of pit 50120 overlay the fill of pit 50092 suggests this was placed after pit 50092 had been backfilled, though ploughing or other activity could have moved it slightly.

The placing of these two features between the largest aisle posts does seem to be significant. Although they would not have blocked access between the posts, they would have made this harder. It is possible that these features were inserted at the end of the life of the building as some kind of act of ceremonial closure, but they could also represent the use of the building. If the aisle posts were originally part of an eastern gable end the pits may have been created when the building was extended and the aisle posts brought inside the larger building.

Post-building phase

Prominent within the building were two large pit hearths, but their locations and relationships suggest that these formed part of a phase of activity that post-dated the building. The two large pits (50092 and 50120) may also belong to this phase.



Plate 20. Pit hearth 50145



Plate 21. Pit hearth 501116/50133

Pit Hearths

The largest of the hearths (50145) was located on the western internal division (50176), just north of the longitudinal centre line of the building. The depth and sequence of the deposits contained within it indicate that this hearth was repeatedly used over a long period. It consisted of a large irregular oval shaped pit (50145), 1.5m long, 1.3m wide and 0.35m deep. The pit had quite gently sloping sides heavily oxidised by fire and lined with clay. The basal fill was rich in charcoal and contained some stones. This was sealed by another clay layer, with some burning on its surface and large stones embedded in it, forming what appeared to be a U-shaped hearth structure filled with charcoal-rich deposits (plate 20, figure 13.1).

Neolithic pottery, burnt bone, flint, chert and flakes of quartz crystal were all recovered from most of the deposits within the hearth. The upper fill (50147) contained most of the pottery, as well as a flake from a Graig Llwyd axe (sf3010).

A steep-sided hollow beneath the cut of the hearth was probably the truncated base of an aisle posthole and the hearth clearly cut the partition gully (50176). The aisle post must have been removed before the hearth pit was dug, and the loss of an aisle post would suggest the roof had also been removed or had collapsed. The location directly over an aisle posthole implies a deliberate choice and possibly the removal of the post immediately before the pit was dug. The presence of Early Neolithic pottery throughout the repeated use of the hearth also suggests that the hearth was used not long after the building.

Another large hearth (50133) was located on the eastern side of the eastern bay, cutting through the possible wall gully (50232). It was oval with steep, near vertical sides and a flat base, and measured 1.37m long, 0.97m wide and was 0.30m deep. The sides and base of the feature were heavily reddened and oxidised, and the base of the

pit was filled with a thin charcoal-rich deposit, containing fire cracked stones, large chunks of charcoal and a large number of artefacts. Above this was a clayey deposit that may have represented a clay lining, baked by later fires lit within the hearth. This also was covered by a charcoal-rich layer with fire-cracked stones (figure 13.4). At this stage the hearth was also edged with stones (plate 21). A third phase of activity at the hearth was indicated by the presence of another clay layer again covered by a charcoal-rich layer, and bounded by a kerb of stones. The upper part of the sequence was recorded as being in cut 50116, but these were all part of a sequence of hearths in the same cut. Numerous pot sherds, flint and chert flakes, burnt bone fragments and some knapped crystal quartz came from all the layers of the hearth.

Even if the structure supported in gully 50136/50232 had gone out of use before the abandonment of the building the hearth seems too close to the gable wall to function when this was standing. This hearth also therefore seems to have been used after the demolition of the building.

A smaller hearth (50207) was identified within the middle bay and, although this does not cut any of the building features, it also seems to be too close to structural features to be used inside the building. This was a shallow scoop, 0.05m deep, with heat affected sides and a fill of dark silt with frequent charcoal. A few fragments of Early Neolithic pottery were identified within it.

A pit (50044) located in the western bay contained a black, charcoal-rich upper fill (02100) and was initially considered to be a fire-pit or hearth. This feature was oval in plan, 0.86m wide and 1.03m, with gently sloping sides and a concave base 0.19m deep. Its primary fill (50045) was an orange-brown silt very similar to the natural silt into which it was cut. This suggests that it was an erosion deposit implying the feature had been left open for some time. There was no heat-reddening either on the cut or on the upper surface of layer 50045. This argues against the feature being a hearth and the charcoal-rich fill was probably deposited in the hollow left in the largely infilled pit. Pit 50044 was above the base of a truncated posthole (50187) (figure 13.3), but the relationship between the pit and the posthole was not entirely clear as the lower fill of the pit and the fill (50188) of the posthole were very similar. It seems possible that 50044 was dug to remove the post, both empty posthole and pit were left open to fill with eroding material dug out when 50044 was dug (plates 16 and 17). The remaining hollow as then filled with charcoal-rich material (02100). There were no finds in the posthole, but 50045 contained flecks of charcoal, pottery, including a large rimsherd, and some lithics. The charcoal-rich deposit (02100) contained numerous pot sherds and some lithics and probably related to the same activity during which the pit hearths were used.

Pits 50092 and 50120 would have blocked access between the aisle posts 50179 and 50167, which may possibly have been part of their purpose. However, it is possible that these pits were dug after the building went out of use. The scarcity of finds from these pits may indicate their use in a different phase, though the hearths, which are also argued as being later, had a large number of finds in their fills.

External features

Relatively few features lay outside the area of the building. There seems to have been some activity immediately outside the western gable end. Several carefully laid flat stones were placed in a hollow (50075) with some stones on edge possibly indicating very disturbed side slabs. There seems to have been *in situ* burning as the hollow below the stones was fire reddened, but there was little charcoal recovered. A large number of finds were recovered from the pit, including fragments and sherds of Neolithic pottery, flint and black chert flakes and debitage, and a small quantity of burnt animal bone. It is possible that this was the base of a hearth. A neighbouring irregular pit (50059) may have been related. This contained some larger stones and a charcoal-rich fill with numerous finds (figure 15.2). Two smaller pits (50218 and 50230), no more than 0.15m deep, were also found in this area.

Further west a group of three postholes (50025, 50030 and 50032) (figure 11), which were up to 0.29m deep and contained possible disturbed packing stones. Only one, the westernmost posthole (50025), contained any finds: a utilised flake of black chert and three sherds of prehistoric pottery. Two small, shallow features (50023 and 50282) to the south and north of this group might have been related truncated postholes but were probably just hollows.

Other features to the west of the building were natural hollows; 50022 was a fairly large tree root hollow, but a shallow feature (50020) 18.6m from the western end of the building, may have been a hearth. It was 0.15m deep, contained a high proportion of charcoal and burnt stones, and may have been another hearth or cooking pit.

At the eastern end most external features proved to be root holes or other hollows, although a flat schist slab (50257) may have been deliberately placed. One shallow pit (50142), 0.1m deep, was more convincing and

contained a number of fragments of prehistoric pottery. The adjacent feature (20047) may have been a posthole as it contained one or two larger stones that may have been post packing (figure 11). Feature 50202 was almost certainly a posthole. It was 0.23m deep and may have provided some additional support to the building (figures 10 and 14.5).

A possible hearth (50126) was found around one and a half metres outside of the south-eastern corner of the building. It was an irregular oval shape, 0.80m long and 0.60m wide, with steep sides (figure 13.2). The base of the cut was slightly affected by heat and the fill contained charcoal and a number of large stones, most of which appeared to line the edge of the cut. Only a single flake of flint and some crumbs of what appeared to be prehistoric pottery were identified within the fill.

More archaeological features were identified to the north of the structure (figures 11 and 16). The nearest (50264) was an irregular natural hollow, although it contained a few finds, but more convincing features were grouped between 5 and 13m north of the building. There were two small postholes (50003 and 50010). The former was about 0.26m in diameter, only 0.08m deep and contained no finds; the latter was of more interest. Feature 50010 was sub-square in plan measuring 0.4m by 0.4m and was about 0.35m deep with steep sides. It was clearly a posthole as it had a couple of post-packing stones (plate 22). The fill contained two struck black chert flakes (sf1076) and a flake of burnt flint (sf1223), but it also contained a large unfinished cannel coal bead (sf1073).



Plate 22. Posthole 50010 half sectioned showing packing stone

Other features in this area included a shallow (0.14m deep) pit (50009), which contained a hammerstone (sf1030), and feature 50013 was an oval pit 0.21m deep, which lacked finds. Other features were probably natural hollows. Feature 50005 was an irregular hollow no more than 0.25m deep, and feature 50015 was a poorly defined hollow about 0.2m deep with large stones in its upper fill, that was probably a tree-throw hole. Feature 50078 was also an irregular hollow up to 0.3m deep. Despite being probably of natural origin this feature contained some chips of chert (sf5994), a flint flake (sf5995) and tiny fragments of burnt bone (sf3056). Feature 50005 also contained a chip of retouched chert (sf1261). A chert core and a chert pebble fragment (sf1006, 1005) were also found near feature 50005 and another struck pebble fragment (sf1007) was found near feature 50078). A small fragment of Early Neolithic pottery (sf1029) came from a patch of relict soil near feature 50003. The finds are suggestive of prehistoric activity in the area but they could all have originated from the use of the Neolithic building.

Other than the small number of features described above the building was quite isolated from other possible contemporary or even much later activity. About thirty five metres to the north of the building were two possible postholes ((50001) and (50007)), and another 10m north of these was an isolated shallow circular pit (50294) (figure 17). None of the features contained any finds and none is definitely prehistoric.

A prominent schist outcrop was located immediately south of the Neolithic building (figure 17), and to the south of this were a small number of features, including three possible postholes ((50389), (50322) and (50406)) and two pits (50459 and 50397). Posthole 50322 contained two small flint chips and pit 50397 produced a burnt thumbnail scraper (sf5421) and some burnt bone, as well as fire-cracked stone, but no pottery to suggest an Early Neolithic date.



*Plate 23. Feature 50452
with stone set along the
side*

Ten metres south-east of this was a stone-lined pit (50452), 1.16m long, 0.69m wide and 0.33m deep. It had almost vertical sides and a flat base with one large schist slab set on edge against the side of the cut (plate 23), and other large stones dumped into the pit. Three small pieces of flint, a struck pebble, a flake and a burnt piece of debitage were recovered from the upper fill. The function of the feature is unclear. The size of the cut and its stone lining suggested that it was a cist grave, however the stones within the fills appeared to have been dumped rather than being part of a capping deposit. It is still possible that it is the remains of a disturbed cist, and the flint work does tentatively support a prehistoric date, however no finds were recovered from the feature to strongly support such a hypothesis.

The stone-lined pit (50452) was associated with two further features, a smaller pit (50400) and a possibly truncated posthole (50398), but coal and metalworking residues in (50400) suggested a post-medieval date. Further east was a possible hearth or fire pit (21042), filled with black charcoal-stained silt with frequent fire-cracked stones, but producing no finds. Other features to the south of the outcrop proved to be natural features such as tree throws, root holes and stone sockets.

Finds from the Neolithic building

Figure 18

Most of the finds were recovered from within the fills of features, with the majority of features producing some finds. There were generally fewer finds from along the north and south wall lines, with some of those postholes having no finds at all. Although finds were found throughout the building, there was a greater density of finds in the eastern half. All the fire pits or hearths produced a large number of finds, especially pottery, but there was little difference in the nature of the finds between those from the fire pits and those from elsewhere in the building. The bone recovered was in all cases tiny fragments of burnt bone, generally scattered but more common in the fire pits. Tiny chips of crystal quartz were also generally distributed but with a greater concentration in the eastern part of the building. Although occasionally found elsewhere, there was also a concentration of flakes of Graig Lwyd stone in and around the eastern gable end of the building. Some of these were flakes from polished stone axes and usewear on these suggested the flakes had a practical function.

Some features around the building had a low number of finds and there was a slight scatter of finds to the north but very little to the south of the building. No objects appeared to have been deliberately placed apart from two large stones; a saddle quern (sf1202, volume 3 Fig VI.1.4) found face down in pit 50092, and a mortar or grinding stone (sf1204, volume 3 Fig VI.1.6) placed in the middle of posthole 50085.

The lithic assemblage consists of 725 pieces, of which 422 were black chert and 226 were flint, as well as grey chert, crystal quartz and the Graig Lwyd flakes. There are surprisingly few cores compared to the quantity of waste, which suggests that most primary working did not take place within the building. The assemblage of retouched pieces is dominated by edge-retouched knives and scrapers; the knives mostly on black chert, and the scrapers on both flint and chert. There are also piercers, nosed pieces, spurred pieces, a serrated piece, a bifacially retouched piece of flint, which could be the tip of an ovate knife (sf4412) and a bifacially retouched knife (sf1117). The assemblage is certainly domestic in nature, with a variety of tool types, though with an unusually low number of scrapers compared to cutting tools. Serrated pieces are characteristic of Early Neolithic assemblages, but here there is only one piece, although functionally their place may have been taken by the edge-retouched knives.

About 1100 sherds were recovered from pits, postholes and hearths associated with the rectangular timber building; all apart from one minor exception were consistent with Early Neolithic 'Irish Sea Ware' (volume 3 Figs I.1.1.1 to 3). The exception (sf1770) is a small rim sherd, possibly from a Middle Neolithic Peterborough Ware pot. This came from feature 50258, which lay near the line of the north wall of the building. It is the only find that possibly hints at later activity.

The vast majority of the finds are small sherds, fragments and crumbs, usually with abraded edges and worn surfaces are often worn. Generally only very small quantities of any one pot are present and most contexts contain a mixture of fabrics suggesting that several disparate pots are represented. There is no suggestion that any pieces were deliberately placed into pits or postholes. The over-whelming impression is that this material is domestic debris accidentally incorporated into features.

There is only one instance of sherds from the same pot (sf1545/1559) being found in two different features (volume 3 Fig I.1.1.3). These features, the beam slot 50166 and posthole 50174, are inter-cut and material may have been displaced between them.

The hearths or fire pits were particularly productive of pottery. The upper fill of pit 50044 was initially considered as a hearth pit and the pottery from that was consistent with the other hearth pits, so it was probably deposited at the same time. The hearth pits contained more sherds (cut 50044: 24; cut 50116: 81; cut 50133: 96 and cut 50145: 76) and some of them larger, than the other individual features but the mix of fabrics and shapes are similar, indicating that the activity was chronologically close to that of the use of the building (figure 10 and volume 3 Fig I.1.1.1).

Identifiable, uncontaminated lipids were recovered from 10 potsherds from the Early Neolithic Building. The results demonstrated that these vessels were routinely used to solely process dairy products, such as milk, butter and cheese.

The origin of the finds in these features needs some consideration. Finds in the postholes and foundation slots presumably were brushed or kicked into corners or wall footings and became incorporated into the postholes, possibly largely by animal disturbance. This process is likely to have occurred during the life of the building. However much of the material must have entered the features when the posts or planks were removed or rotted away. The large aisle posthole 50179 is a good example of this. The post-packing material (50201) (figure 12.5) contained very few finds, indicating that little had been incorporated into this *in situ* deposit. However, the fill of the postpipe (50190) had many finds. These must have fallen into the space left as the post decayed, aided by animal burrowing into the rotting remains, which would have been rich in insects and worms.

The pits, including the fire pits, may have had different taphonomic histories, although there is some indication that animal burrowing was also important here. In fire pit 50145 (figure 13.1) a patch of dark brown fine silt (50154) was recorded which appeared to be the fill of an animal burrow. This contained a significant number of pot sherds and other finds, which had presumably fallen into the empty burrow from above. In most cases the preservation of distinct layers within the fill of the fire pits shows that burrowing did not introduce most of the finds, but some probably came by this mechanism. Finds seem to be concentrated in layers with charcoal, suggesting perhaps that rubbish was dumped on the fire, probably once it was burnt out, as only the bone fragments were burnt. The previous fire then seems to have been covered over with silt redeposited from the substrate before another fire was made. It is assumed that the artefacts were produced by activities related to the use of the fire pits, but it is possible that previous occupation debris was placed over the fire. However in the latter case it would be expected that the sherds would be more, not less fragmented, than in the building in general.

Two large stone objects came from the buildings; a saddle quern fragment and a large mortar fragment. The saddle quern (sf1202) is a large natural flat boulder of medium grained dolerite that has been worn into a wide facet by use. The mortar (sf1204) is a similar large natural flat boulder, but of fine sandstone, with an approximately flat base and a shallow natural concavity that has been subsequently utilised. The quern fragment was found face down in pit 50092 in the centre of the building, set in amongst well-packed stones. It seems, therefore, to have been a deliberate deposit. The quern is too large and solid to have been broken accidentally, so it is possible that it was deliberately broken as part of the ritual deposition. The broken mortar was found lying horizontally in the upper fill of post-hole 50085 and may have been deposited there deliberately. It could have been used as a post-packing stone but it seems more likely that it was placed after the post had been removed as a 'closing' deposit.

The utilised stone objects include three small grinding slabs and two hammer stones. The latter may have been used to produce some of the considerable knapped stone assemblage, but there was a high proportion of retouched to waste pieces of knapped stone indicating that most knapped lithic production took place elsewhere.

The quern, mortar and grinding slabs are suggestive of cereal processing in the building but the grinders could have been for processing of foods other than cereals or have been used in production of wood or bone articles. There was also a polisher, which could have been used in leather production. The frequency of edge-retouched knives and scrapers in the knapped stone assemblage is also suggestive of leather working.

The most important object came not from the building itself but from a posthole just to the north. This is the cannel coal bead roughout (sf1073) found in the fill of posthole 50010. Radiocarbon dates were obtained on charred short-lived species from the fill of the posthole resulting in dates of 3660–3530 cal BC (SUERC-81332) and 3790–3660 cal BC (SUERC-83265). This dates the bead to the Early Neolithic. The bead appears to be unique, as it is unlike the few other jet-like Neolithic objects from Wales and indeed from the rest of Britain. It is also much earlier in date than the other Welsh objects. It was made on a pebble of cannel coal, probably collected from a local beach, but may have referred to ideas about the status and properties of jet current in the wider Neolithic culture (Sheridan, current report volume 3, part IX.1). Traces of working on the roughout suggest that the intention was first to cut the pebble in half but this plan changed and the aim was then to produce a single large bead with a central perforation. The reason why the roughout was discarded and not completed is unknown as there was no fault or damage that would have prevented its successful completion.

Most of the charcoal assemblages from features in the building were dominated by oak charcoal, but one was dominated by hazel charcoal, and other samples had significant proportions of hazel charcoal. Willow/poplar and rosaceae charcoal was also recorded. The hearth pits, unsurprisingly, contained the largest quantities of charcoal with one sample having over 40,000 fragments and two samples with over 35,000 fragments. Most of the samples contained only oak charcoal and those with other species were dominated by oak, apart from a single sample dominated by hazel, which also contained oak charcoal. The species present in addition to oak were hazel and willow/poplar charcoal. Structural features and pits in the building contained similar proportions of the same species, but one pit contained *rosaceae* charcoal (rose family) and a posthole had a small amount of alder charcoal (McKenna, volume 3, part XIX.3).

Relatively few soil samples contained significant quantities of charred plant remains. Hearth 50116 contained numerous hazel nut shell fragments but also over 300 charred cereal grains. The grains were not well-enough preserved to be identified to species but there was also fragments of chaff, including spikelet forks, glume base, culms and detached embryos. Posthole 50182 also produced numerous hazel nut shells as well as indeterminate charred cereal grains and chaff (McKenna, volume 3, part XIX.4).

Radiocarbon dating of the Neolithic building

Nine dates were obtained from the Early Neolithic building and two dates from the nearby posthole that contained the cannel coal bead. The dates from the building were obtained from both structural features and from the hearth pits that cut some of these structural features.

Table 1. Radiocarbon dates from the Early Neolithic Building and adjacent features

Lab ID	Context	Cut	Feature type	Material	Radiocarbon age (BP)	Calibrated date (95% probability)
<i>Early Neolithic building (PRN 31570)</i>						
<i>Structural features</i>						
SUERC-81330	50189	50179	posthole	charred hazelnut shell	4817 ±23	3660–3530 cal BC
SUERC-81329	50235	50232	beam slot	charred cereal grain	4902 ±24	3710–3640 cal BC
SUERC-83261	50168	50167	posthole	charred hazelnut shell	4873 ±29	3710–3630 cal BC
SUERC-87063	50060	50059	pit	charcoal: hazel	4868 ±22	3700–3630 cal BC
SUERC-87064	50148	50179	gully	charred cereal grain	4926 ±25	3770–3650 cal BC
SUERC-87065	50183	50182	posthole	charred cereal grain	4836 ±21	3660–3530 cal BC

Lab ID	Context	Cut	Feature type	Material	Radiocarbon age (BP)	Calibrated date (95% probability)
<i>Hearth pits</i>						
SUERC-81328	50115	50116	hearth	charcoal: hazel	4929 ±22	3770–3650 cal BC
SUERC-81331	50161	50145	hearth	charred cereal grain	4931 ±24	3770–3650 cal BC
SUERC-83260	50132	50133	hearth	charred hazelnut shell	4914 ±29	3770–3640 cal BC
<i>Feature with cannel coal bead</i>						
SUERC-81332	50011	50010	posthole	charred cereal grain	4831 ±23	3660–3530 cal BC
SUERC-83265	50011	50010	posthole	charred hazelnut shell	4958 ±29	3790–3660 cal BC

There was no difference between the dates from the structural features and the hearth pits, so no separate phase of activity could be identified from the dates, even though the stratigraphy suggested the hearths were later. All nine dates were used to create a Bayesian model which estimates the activity associated with the structure began in 3725–3655 cal BC (95% probability), and probably in 3710–3665 cal BC (68% probability). The activity occurred for 10–110 years (95% probability), and probably for 30–75 years (68% probability). The activity ended in 3655–3610 cal BC (95% probability), and probably in 3645–3625 cal BC (68% probability) (Hamilton volume 3 part XXIV).

The two results (SUERC-81332 and SUERC-83265) associated with the cannel coal bead are not statistically consistent and suggest the material is of mixed ages. The more recent result (SUERC-81332) provides the best estimated date for the formation of the deposit of either 3660–3630 cal BC (59% probability) or 3580–3530 cal BC (36% probability). The calibrated date has a bi-modal distribution curve, and if the sample dates to the earlier peak then it could have originated from the activity related to the timber building, but if it dates to the later peak then it likely post-dates this activity. However, the other slightly earlier date (SUERC-83265) does support the argument that the material in the posthole was coming from the building, and it seems reasonable to associate the bead with the use of the building.

A model of radiocarbon dates from Early Neolithic houses in Ireland suggested these structures were in use from 3770–3675 cal BC (95% probability), probably 3715–3680 cal BC (68% probability) to 3635–3600 cal BC (95% probability), probably 3635–3615 cal BC (68% probability) (Cooney *et al* 2011, 598). This model uses a limited number of high quality dates but the current data do suggest a very short period of time over which these buildings were constructed and used. This period of use was probably shortly after the introduction of Neolithic culture or as an integral part of the very first expression of this culture (Cooney *et al* 2011, 604; Bayliss *et al* 2011b, 808). A model of the dates of Early Neolithic timber halls in Scotland suggested they started in 3800–3705 cal BC (95% probability), probably 3780–3725 cal BC (68% probability) and ended 3705–3630 cal BC (95% probability) or probably 3690–3645 cal BC (68% probability) (Bayliss *et al* 2011b, 832). This model only included dates from three halls but possibly hints at a slightly earlier start in Scotland.

The start of use of the Early Neolithic timber building at Parc Bryn Cegin, Llandygai was dated to 3800–3670 cal BC (95% probability) and 3760–3700 cal BC (68% probability) and the end of use to 3690–3610 cal BC (95% probability) and 3670–3620 cal BC (68% probability), with a duration of 10–140 years (95% probability) or probably 40–110 years (68% probability) (Kenney 2009, 26–27). This is similar to the models for the Irish and Scottish buildings. The Parc Cybi building would appear to be slightly later in date, though possibly used for an even shorter period than the Parc Bryn Cegin building. It seems likely that these buildings were used for no more than three generations, and possibly for considerably less, despite being substantial structures that could potentially last for hundreds of years with maintenance. The absence of replacement postholes and other signs of repair at Parc Cybi supports this short use-life of the building.

Interpretation

There is little doubt that the features represent the remains of a roofed building. The aisle posts and gable ends would have functioned effectively to support a roof and the walls in places were quite well-defined. The plan and size of the building would be almost identical to that of the Llandygai II building found at Parc Bryn Cegin (Kenney 2009), except for the eastern bay (figure 19). The building found earlier at Llandygai (Llandygai I) (Lynch and Musson 2004), is also similar in plan. In fact, if the eastern end of Parc Cybi is disregarded, the layout of the aisle posts is almost identical in all three. There is a tripartite structure with the aisle posts forming three

bays. In all cases the eastern bay is the largest and generally unencumbered with other postholes. The two western bays are much smaller and it has already been proposed for Llandygai II (Parc Bryn Cegin) that the proximity of the aisle posts in this area may indicate that they supported a second storey. It might be expected that the two Llandygai buildings to have a similar plan as they were built about 500m apart at probably much the same date. The similarity of the Parc Cybi building suggests that there was a common plan to which buildings of this sort were constructed in the area. This theory is undermined by the discovery of four houses of probably Early Neolithic date at Llanfaethlu, Anglesey (Rees and Jones 2017a; Rees and Jones 2015a). None of these obviously follows this plan, though a layout of postholes similar to the pattern of the aisle postholes can be detected in House 1. There is still much post-excavation work to be done on this site before direct comparisons can be made, and those comparisons are likely to be very interesting.

The Parc Cybi and Llandygai buildings are so similar in design that it may be justified in considering them as a specific regional sub-class of this site type. While clearly drawing on a common tradition these buildings are not quite the same as others elsewhere with the exception of the eastern end of the structure at Lismore Fields, Buxton (Garton 1987). This has an almost identical layout to Llandygai II, but with less emphasis on the gable ends. This similarity may support the suggestion that the complete Buxton structure was two buildings, or at least it was extended. The concept of extendable modules seems to be demonstrated at Parc Cybi in the eastern bay and is perhaps reflected in the numerous bays of the larger Scottish buildings. The paired aisle posts and tripartite division can be seen in some of the Irish houses, such as Lough Gur (O'Riordain 1954) and Ballyglass (O'Nuallain 1972), which proved influential in interpreting the truncated remains at Llandygai I (Lynch pers. comm.).

With other suggestions of modular construction, it is likely that the eastern bay at Parc Cybi was added after the main part of the building had been constructed. Postholes 50167 and 50179 seem particularly large for internal posts and may originally have formed the eastern gable end. The eastern end varies considerably from the rest of the building. It seems to have been slightly narrower, and the restriction of a foundation slot to this end suggests a different style of walling, with a plank wall rather than post and wattle and daub. However, plank walling could have been part of the original design to emphasise the eastern end of the building.

The degree to which the bays were partitioned off from each other is not entirely clear. The eastern bay may have had partitions running between the walls and the aisle posts but probably a gap between these posts. Whether access through this gap was made more difficult in use by the presence of the two pits or whether these belong to the later phase of activity cannot be certain. The partition for the western bay represented by gully 50176 seems to have run across the building with access at each end next to the walls. However, the gully was very wide and the nature of the partition is difficult to imagine. The gully seems much too wide to be for a plank or wattle partition. The shallow and rather irregular character of the gully might suggest that it was an erosion hollow rather than a partition. It is possible that the gully was widened by digging out the footings of a plank-built partition, possibly also explaining the more irregular eastern edge to the feature.

The eastern end is notable also for an additional foundation slot (50136/50232) just inside the eastern gable. The Llandygai II building had a post trench immediately inside the eastern gable end, although it was centrally placed unlike the slot 50136/50232. Similar features have been found in other buildings (e.g. Claish (Barclay *et al* 2002) and Balbridie (Fairweather and Ralston 1993)) and at Balbridie an entrance was suggested in this end. The slot (50136/50232) does seem to form a sort of corridor with the gable end with the two postholes (50084) and (50025) at the southern end. The presence of a large post on either side might suggest an entrance but the gap at about 0.35m wide, does seem small. However, the posts would not have been as wide as the postholes and the gap between the posts themselves might have been about 0.5m. It led into the space between the two wall slots 50166 and 50136/50232, which was no wider, giving a claustrophobic, but passable corridor.

No other features specifically indicate the presence of an entrance, although gaps in the walls could have included entrances. It is possible that the two postholes 50085 and 50087 were part of an entranceway, though slightly oddly positioned in relation to the aisle posts if that was the case. It is also possible that the slots between the gable posts may not have held walling but thresholds, in which case there might have been a door at either or both ends. A door in a gable wall could be full height without any problem caused by the low thatch and roof supports that would be encountered by a door in the side wall.

Locating doors within these structures is often problematic and rarely certain. If the entrance was in the south-eastern corner of the building it must have been a very restricted one, making access to the building difficult and intimidating, so perhaps an entrance elsewhere is more likely and these features had another function. However,

the size of posthole 50084 could be explained if it was a door support. All the other wall postholes were so slight that the large size of this posthole does appear to have a specific purpose.

Although the large internal hearths probably belong to the later phase, there is no reason why external hearths were not in contemporary use with the building. The position of the possible hearth 50126 close to the south-eastern corner of the building might support the suggestion of an entrance in this corner, but if external hearths are expected to be conveniently close to entrances, hearth 50075 might indicate a door in the western gable end. This western gable end is very similar to that at Llandygai II (Parc Bryn Cegin) (Kenney 2009), which also had a wall slot between the two aisle posts but not extending to the corner posts. In that case features on the south wall led to an argument for a door at the western end of the south wall, but there was a burnt patch in a similar position to 50075. This burnt patch was largely disregarded as there were many similar ones in the area from scrub clearance, but it is possible that hearths are to be expected at the western end of these buildings. Unfortunately, the relevant area was dug away at Llandygai I by the henge ditch. A search of other Early Neolithic buildings in Britain and Ireland failed to find hearths in a similar position. In many structures the hearths do not survive, but where they do, they are often central.

The location of the building on a highpoint in the landscape and in a close relationship to the Trefignath tomb must be significant and is considered in the discussion section below. The building was also located just north of a rock outcrop, which must have partially concealed it when viewed from the south (plate 24).



Plate 24. View of rock outcrop from north-west with excavation just starting on Early Neolithic building (ranging rods at west-south-west end of building)

The end

Few postholes, even the deepest, had *in situ* packing stones, suggesting disturbance and possibly deliberate post removal. A postpipe resulting from the post rotting *in situ* was seen in posthole 50179, but not in any other postholes. There were no clear examples of post removal at the end of the life of the building such as were seen in the Llandygai II building (Kenney 2009, 21-22), where some posts had been removed and the voids carefully filled with stone. However, the post in posthole 50087 may have been dug out, and the mortar stone lying over the middle of posthole 50085 suggests the post there was removed and the stone laid over the location where it had been. The clearest indication of deliberate demolition is the removal of an aisle post and the digging of fire pit 50145 over its location.

It is suggested that the building was largely dismantled, probably immediately before the pit hearths were created. A phase of activity is therefore envisaged in the dismantled remains of the building involving the repeated use of hearths in pits. Whether the two pit hearths were in use at once or whether they were sequential is not yet clear but each individual hearth was used several times. The two pits between the aisle posts might also belong to this phase.

The pottery within the pit hearths was indistinguishable in style from that elsewhere, as were the dates from material, including probably fuel wood. The date of the later activity over the area of the building therefore could not be distinguished within the limits of radiocarbon dating from the date of the use of the building. The pit hearths therefore appear not to be a later reoccupation of the site but directly related to the demolition of the site, occurring immediately after its use had finished. The proximity of the hearths to the end of the use of the building suggests a closure ritual, but their function is difficult to determine. There was no higher proportion of burnt bone from

these pits to suggest associated feasting, but unburnt bone did not survive so detecting such activities is not easy. The slightly larger sherds from the hearths suggest that this pottery was associated with this final activity and did not just come from existing debris. The pottery seems to have been used to hold only dairy products, but in this it showed continuity with the use of the building. The absence of a sheltering structure at this phase, despite repeated reuse of the hearths, suggests short term but intensive use of the hearths, which would be consistent with feasting.

Early Neolithic buildings often seem to have had an end that was marked in some way or ritualised. Like many of these buildings, especially in Ireland (Smyth 2014, 62-65), intense burning at Llandygai I suggests that it burnt down (Lynch and Musson 2004). The Llandygai II building seems to have been at least partially deliberately demolished (Kenney 2009, 21-22). Feasting activity has not previously been suggested at the end of one of these structures, but may have been appropriate.

There are few examples of pits dug into the remains of Early Neolithic houses, but House 1 at Ballyharry townland, County Antrim does provide a comparison (Moore 2003, 156-158). Here a series of shallow pits or depressions containing quantities of Early Neolithic artefacts cut through the remains of the house. There was also a hearth-pit filled with alternate layers of black and burnt orange deposits, similar to the Parc Cybi pit hearths. At Ballyharry the pit hearth is attributed to the final phase of house construction and use but the plan shows this feature as surrounded by the late pits (Moore 2003, 158, fig 18.2) and the current author speculates whether it also belonged to the last phase of activity, though that would need to be checked against the detailed site record. At Yarnton, Oxfordshire a large pit dug just outside the building and containing a wooden vessel and cremation burial may have been in use during the later part of the life of the building rather than post-dating it, but a pit (feature 4373) with Grooved Ware dug in the middle of the building clearly post-dated it. As this pit was much later than the end of use of the building it is not directly comparable to Parc Cybi. However, this pit contained a large cannel-coal bead, which does provide a comparison to Parc Cybi (Hey *et al* 2016, 60, 475, 476-8).

Claish also contained two pits that might be relevant in this discussion (Barclay *et al* 2002, 77). These pits (F15 and F19) contained large quantities of pottery and had layers resulting from *in situ* burning in the partly filled pits. The pottery tended to be concentrated in layers that also had burning. These pits do seem to have been used, at least occasionally, as hearth pits, though they were much deeper (up to 0.92m deep) than the hearth pits at Parc Cybi. There was no evidence that the Claish pits post-dated the building but as they did not cut any other features and there were no floor layers surviving it could not be demonstrated whether they were contemporary with the main use of the building. Future work or reassessment of known structures might reveal more evidence to support a tradition of pit hearths being used at the end of the life of these buildings.



Plate 25. Hollow in the glacial gravels in Area E in which temporary occupation occurred in the Neolithic period

Temporary Early Neolithic Occupation sites

Early Neolithic Activity in Area E (PRN 18406)

See figures 20 and 21

Description

The largest concentration of Early Neolithic activity beyond the timber building was in Area E where finds and features were concentrated within a large hollow on a south-western facing slope (SH 2531 8077). The underlying geology here was of glacial gravels and unevenness in their deposition had created the hollow, which had partially infilled with windblown loess (plate 25). However the hollow had stabilised and a soil had developed on the loess. This soil layer had been sealed by colluvation caused by ploughing but had been protected from plough damage by being within the hollow. A patch of this relict soil (31025) measuring approximately 8m by 7.5m and up to 0.15m deep had survived, but this had almost certainly originally extended more widely. The deposit was a firm light brown sandy silt with lenses of cream and orange containing occasional small sub-rounded stones and charcoal flecks. A considerable quantity of Early Neolithic pottery, occasional Beaker sherds and numerous flint artefacts were recovered during the excavation of the deposit.

The focus of the activity was concentrated within the northern end of the hollow over and near the surviving patch of relict soil. Some of the features were only identified after the relict soil (31025) had been removed as the similarities between the fills and the deposit made it very difficult to distinguish features with the relict soil. However, it is most likely that these features were cut through, rather than underlying, the relict soil. The area was further confused by leached root hollows and other natural features, which were often difficult to distinguish from



Plate 26. Working shot of digging the occupation area in the hollow

anthropomorphic ones (plate 26).

The locations of finds from the relict soil were recorded in three dimensions (figure 21) and this indicates most activity on the western part of the relict soil, with some features in the eastern part of this area having collected significant numbers of finds. This western area is also where finds were recovered from trench 6 in the evaluation trenching. It is suggested that where the relict soil did not survive many finds have been lost, and although not the focus of the find scatter, it is probable that much of the activity was concentrated around a row of three hearths and a possible fire pit. The three hearths (31005), (31006) and (31007) were patches of *in situ* burning ranging in diameter from 0.84m to 1.10m and surviving to a depth of up to 0.15m. These were probably the remains of fires lit directly upon the ground surface. Feature 31010 appeared to be a pit that had been largely infilled before a fire was lit in the remaining hollow leaving a thin layer of charcoal. Much of the fill of the pit also contained lumps of heat-reddened clay.

A flat slab of schist (31041) measuring 0.55m x 0.22m was excavated in the immediate vicinity of the hearths. Very few other stones were found in the loess deposit and it was probable that this had been deliberately placed for a specific purpose, perhaps as a surface for food preparation. However no traces of cutting or grinding were identified on the stone's surface.

In the area surrounding the hearths were a spread of 34 post and stake holes (plate 27). Whilst it is possible to identify several patterns within this group, none are particularly meaningful, and the exact relationships and possible phasing remains elusive. The clearest grouping formed a row of 7 stakeholes running north-west to south-east across the base of the hollow terminating just to the south of hearth 31005. This group was met by a further group of 6 stakeholes, which appeared to enclose the hearth. Certain stakeholes could feasibly belong to either of these groups although it would seem unlikely that the features were in use at the same time. There was an additional group of 6 post or stakeholes between hearths (31006) and (31007).

The exact function or indeed significance of these groupings is not clear and other arrangements are possible. It is therefore only a tentative suggestion that these stakeholes are the remains of possible windbreaks or ephemeral shelters.

To the north of the hearths were a dense group of thirteen stake and post holes. The diameter of features in this central group varied between 0.14m and 0.33m and they survived to a depth of up to 0.19m. These formed a nearly symmetrical plan that suggests a small structure; much too small for a shelter but perhaps for storage, drying or another similar function. However two of the features ((31627) and (31625)) were intercutting and the shape of stakehole (31640) was indicative of two features rather than one, perhaps indicating more than one phase of postholes or repair to the structure.



Plate 27. Stakeholes in the occupation area with stone slab 31041 in the background

Four pits (31509), (31595), (31666) and (31023) were located to the east of the small structure, all of which were irregular in plan, ranging in length from 0.34m to 0.85m and up to 0.40m deep. These pits contained flint and prehistoric pottery fragments, with one pit in particular (31595) containing an assemblage of 23 small finds including rock crystal and burnt flint. The fill of a neighbouring pit (31509) was charcoal-rich and was cut through by a small stakehole (31514). There were also five stakeholes to the west of the structure, which could have been related to it.

The activity spread to the south-west of the hearths with a general scatter of 24 similar pits, postholes and stakeholes. These features contained prehistoric pottery and flint debitage/tools and are thought to belong to the same broad phase of activity. As with other features in the area there is little coherence to the spread and it is uncertain as to how the features relate to the surrounding area.

Where the hollow opened out at its south-western end a burnt mound (31002) and its trough (31008) were located, with a group of probably associated features. These are discussed below as they proved to be late Neolithic in date, post-dating the main activity in the hollow by several centuries.

Finds and Dates

Some 550 sherds were found within this area, mostly Early Neolithic Irish Sea Ware (volume 3 Fig I.1.1.4) but with a small number of Beaker sherds (volume 3 Fig I.1.1.10). The relict soil (31025) contained most of the sherds, with 275 pottery find groups from this context soil and others from patches of variation within or below it or from cleaning the surface of the natural silt where the relict soil no longer survived. There was a high ratio of scraps and crumbs to sherds indicating that the material in this soil has been trampled, though not necessarily moved very far. Most edges were quite abraded, unlike sherds from the postholes in Area H. There was no difference between finds from the upper or lower parts of the buried soil with the same range of shapes and fabrics throughout. The distribution of sherds through the buried soil and in some cases into the soft silt below was presumably due to bioturbation. There were generally fewer sherds from features but the most productive single feature, pit 31595, contained 54 pieces of pot, representing perhaps 7 vessels. Sherds were also found in the several irregular hollows in the area interpreted to be caused by natural processes. Again bioturbation from a surface occupation layer can be used to explain the presence of these finds. The general mixing seen suggests that there was considerable animal and root activity in this area after and probably between phases of occupation.

While the vast majority of the material from this area is clearly Early Neolithic, there is a very small amount of Beaker pottery, some 14-16 small sherds in all, from the vicinity of the hearths and from the relict soil. Five sherds of Beaker pottery (Finds 5052, 5282, 5286, 5359 and 5069) are recorded from the relict soil itself and 6 others (Finds 851 and 976) come from features (a stakehole and a pit) cut into it. In 2004 fourteen sherds of Beaker pottery were found within the area of Evaluation Trench 6 in this same location, all from the relict soil. All the Beaker pottery occurs as small eroded sherds, from at least 7 different pots. The condition of the sherds and their scattered distribution suggests that they are essentially domestic rubbish.

The knapped stone assemblage from the hollow and features within it consisted of 238 pieces, mostly flint, with few black chert items, and a small number of crystal quartz pieces, including sf5267 (volume 3 Fig V.1.8), which was subjected to usewear analysis and this showed evidence of use for a cutting function. A range of domestic tool types was represented and there is evidence of flint working, with four cores and a fair number of waste pieces. However there was a high proportion of retouched and utilised pieces to waste flakes. The knapping is distinguished by a high proportion of scalar worked pieces due to the small size of the raw material. The retouched pieces are dominated by cutting tools, whereas scrapers usually dominate most domestic lithic assemblages. A microlith (sf909) was found amongst stakeholes to the south of the area of buried soil, but no other Mesolithic lithics were identified, so this seems to have been an isolated example.

Despite the quantity of knapped stone and pottery there was only one non-knapped stone object from the buried soil. This was a piece of a pebble of decorative, polished banded agate from an egg-shaped pebble, which could be a small ovoid mace-head (sf5021, volume 3 Fig. VI.5.1).

The charcoal in soil samples taken from various features, pits, postholes and hearths, was mostly oak, though one sample was dominated by hazel charcoal. Smaller amounts of willow/poplar were also recorded (McKenna, volume 3, part XIX.3).

Table 2. Radiocarbon dates from the Neolithic occupation site in Area E

Lab ID	Context	Cut	Feature type	Material	Radiocarbon age (BP)	Calibrated date (95% probability)
SUERC-81343	31024	31082	hollow	charred hazelnut shell	4635 \pm 23	3510–3350 cal BC
SUERC-81347	31596	31595	pit	charred cereal grain	4897 \pm 22	3710–3640 cal BC
SUERC-81348	31632	31631	posthole	charred cereal grain	4941 \pm 24	3780–3650 cal BC
SUERC-83277	31510	31509	pit	charred hazelnut shell	3772 \pm 29	2300–2050 cal BC
SUERC-83278	31609	31608	pit	charred hazelnut shell	5601 \pm 29	4490–4360 cal BC

The radiocarbon dates obtained from the fills of several features within the activity area suggest repeated reuse of this area. SUERC-81347 and SUERC-81348 are very similar to the dates from the Early Neolithic timber building in Area H and could indicate that much of the activity was contemporary with the use of the building. The similarity in pottery also suggests this. However there also seems to have been activity a little later in the Neolithic and in the Beaker period as also indicated by pottery. The Mesolithic date (SUERC-83278) combined with the discovery of a microlith does suggest activity in this area in that period, though from this slight evidence it is hard to determine how extensive that activity may have been.

Interpretation

The dense group of postholes in the middle of the relict soil were probably the remains of a structure of some sort, or more than one structure built successively in much the same place. However, at about 2m across, this group is too small to represent a house. Some of the stakeholes that formed lines or arcs probably also supported slight structures, but nothing more than wind breaks or shelters. The quantity of finds indicates a long duration of occupation, but that duration need not have been continuous. The presence of a microlith and a Mesolithic date, as well as Beaker sherds suggest activity both before and after the Early Neolithic period, but most of the activity took place in that period. The hollow presumably provided a sheltered spot that was repeatedly visited, but the lack of larger structures suggests that the visits were short and that the evidence suggests repeated temporary occupations.

Early Neolithic Activity in Area M (PRN 31571)

See figures 22 and 23

Description

Towards the northern end of the site a group of Bronze Age monuments occupied a raised plateau. Their location was possibly determined by the location of the standing stone and topographic considerations but it is also possible that prior occupation of the area influenced the choice of this site. Various pits and postholes were scattered about this plateau and some may have been related to the Bronze Age activity but of the few that produced datable finds these indicated an Early Neolithic date, so this group of features is considered under this section.



Plate 28. Pit 40079 half sectioned



Plate 29. Posthole 40088 half sectioned

The majority of these features formed a dispersed group between the cist cemetery and ring-ditch (figure 22). A small group of features, just north of the ring-ditch, contained finds indicating an Early Neolithic date (centred on SH 25234 81062). Pit 40079 was an elongated oval 0.8m long and 0.15m deep, with a fill of dark greyish/black brown silt with frequent flecks of charcoal (figure 23.1, plate 28). More than twenty sherds and fragments of Early Neolithic pottery were recovered (sf1892, sf4481, sf5883), and an irregular flint fragment (sf5889).

To the north of 40079 was feature 40092, an oval shaped posthole, 0.45m long, 0.40m wide and 0.25m deep with *in situ* post-packing stones (figure 23.2). This also contained an eroded sherd of Early Neolithic pottery (sf 4093). Nearby posthole 40088 was 0.50m long, 0.35m wide and 0.16m deep with packing stones and the trace of a post-pipe (figure 23.3, plate 29). One Early Neolithic sherd (sf1411) and other fragments (f1994, sf4525, sf5886) were recovered from its fill, along with a chert fragment (sf1412) and a flint flake with microchipping and use-wear (sf1413).

Other adjacent features might be associated with those that contained pottery. Feature 40057 was a linear feature 1.2m long and 0.2m deep that might have included a posthole in its northern end. Pit 40038 was 1.00m long, 0.65m wide and 0.22m deep with very occasional flecks of charcoal in its fill and a tiny flake of rock crystal (sf5792). Pit 40040 was circular, 0.40m in diameter and 0.15m deep containing fragments of burnt flint (sf5497) (figure 23.4). This group of features was separate from the general scatter of pits and could represent a separate phase of activity.

Further west was a general scatter of pits and postholes. Few features had clear post-packing stones and identifying the difference between postholes and pits was difficult. The size and distribution of some features suggested postholes but many features were unconvincing as such. Probable postholes included (40094), 0.3m in diameter and 0.2m deep, and containing fragments of burnt bone (sf5840) and occasional charcoal flecks.

The pits were generally small, some sub-circular and some more irregular. Pit 40103 was a neat sub-circular pit, 0.4m in diameter and 0.13m deep, with a charcoal-rich fill. Pit 40099 was also circular, 0.54m in diameter and 0.15m deep, but lacked the charcoal in its fill. Pits 40003 and 40117 were more irregular in shape, up to 0.7m long and 0.2m deep. These contained occasional charcoal fragments and a tiny quantity of fuel ash slag (sf5594). Near the D-shaped enclosure was a group of three small, bowl-shaped pits (40085, 40063 and 40137) with charcoal-rich fills. They were up to 0.63m in diameter and up to 0.26m deep. Pit 40137 contained a sherd of prehistoric pottery (sf3070). Another closely spaced cluster of three bowl-shaped pits (40074, 40083 and 40081) with charcoal-rich fills lay about halfway between the cist cemetery and the ring-ditch. These were up to 0.50m long and up to 0.17m deep. Other pits of similar form and size also occurred in small groups. Pits 40042, 40046 and 40048 were located just east of the D-shaped enclosure. Three slightly larger pits (40065, 40067 and 40069) were located some distance north-east of the ring-ditch. None of these produced any finds.

The most westerly end of this spread of features might be seen as represented by pits 40071 and 40076 to the west of the cist cemetery. Pit 40071 was oval and measured 0.70m in diameter and 0.26m deep (figure 23.5). In addition to a number of large smoothed stones, its dark brown silty sand fill (40072) contained a complete but broken stone quern (sf4314), shattered by heat. The three fragments refitted to recreate an oval saddle quern 0.37m long, 0.30m wide and 0.10m thick. In addition to this, the fill also contained struck and burnt flints (sf4564) and

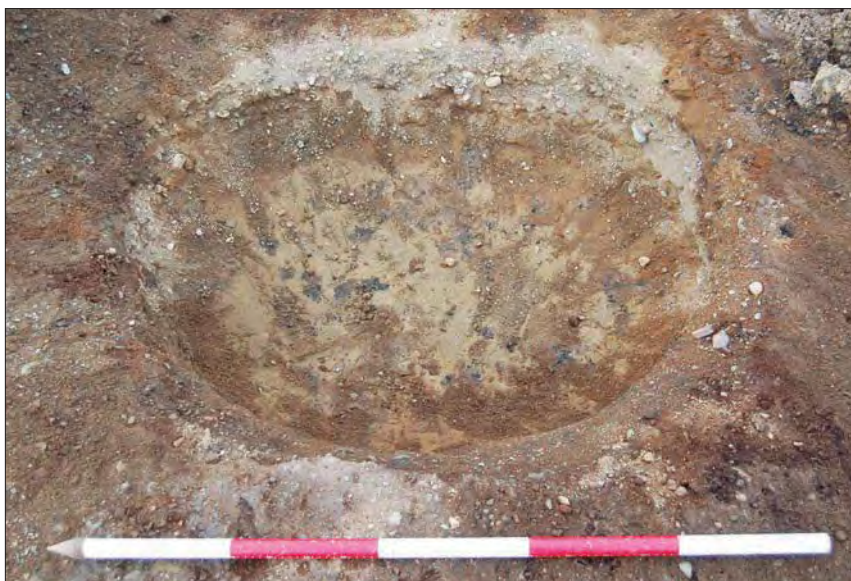


Plate 30. Pit 40076
fully excavated

two tiny crumbs of prehistoric pottery (sf5850).

To the north was a sub-circular pit (40076) around 0.92m in diameter and 0.3m deep (figure 23.6, plate 30). The pit was filled with a sequence of four deposits (40195, 40129, 40077 and 40078). The basal fill (40195) consisted of a thin charcoal-rich layer. This deposit contained burnt, angular stones, and was sealed by a loose, orange brown silty clay with frequent small stones and gravel. Above this was a loose, black silty clay with frequent charcoal lumps and burnt flint fragments (sf4067, sf4442, sf4509, sf5836, sf5839), including a possible fragment of a retouched knife (sf1893). It also contained crumbs of what is possibly Early Neolithic pottery (sf4100, sf4508, sf5805). An upper colluvial fill sealed the pit. There was no firm evidence for burning *in situ* but the series of deposits resembles the firepits in the Early Neolithic building and this would seem to be a cooking pit or earth oven.

Some features were shallow, poorly defined hollows, such as feature 40097, which was 0.06m deep, but this still contained a charcoal-flecked fill. A shallow spread of charcoal-rich material (40131) approximately 0.40m in diameter produced four small fragments of prehistoric pottery (sf5891). Many lacked both charcoal and finds, such as features 40013, 40044, 40053 and 40208, and were probably just shallow natural depressions or animal burrows. A large shallow feature (40140) to the south of the cist cemetery probably represents a tree throw hollow of unknown date.

Finds

Figure 22 (inset)

Four features contained Early Neolithic sherds (figure 22). Posthole 22118 was just south of the D-shaped enclosure (PRN 31591). It contained a single eroded Early Neolithic sherd (sf3049) along with fragments of probable Food Vessel. The Neolithic sherd may be judged residual in this context. However the other sherds all come from the small group of postholes (PRN 31571) north of the ring ditch. Posthole 40092 produced a single eroded sherd (sf4093) and posthole 40088 produced one genuine Early Neolithic sherd (sf1411) and other fragments of a vessel with an Early Neolithic profile but not a typical fabric. Pit 40079 contained several sherds from four Early Neolithic pots, which are quite fresh and join on ancient breaks (sf1892). Three of the vessels are identical in both shape and fabric to other Neolithic pottery on the site. One rim (sf1892 (figure 22)) has a neatly drilled hole below it, drilled after firing, possibly from the inside. The fourth pot is represented by featureless sherds less obviously Early Neolithic but not obviously Bronze Age. There is nothing clearly later than Neolithic in this pit and the Neolithic material must have been quite fresh when it got into the pit (Lynch, vol III, part I.1.1).

There were also a few lithic pieces suggestive of some domestic activity here. The one retouched piece (sf1893) is a fire shattered fragment of a larger flake tool with fine invasive retouch, possibly an edge-retouched knife. The one utilised piece is a cutting tool, a broad flake with microchipping and gloss along one sharp, slightly convex edge (sf1413, Fig. V.1.4).

The fills of features 40071, 40117 and 40137 contained only oak charcoal, the assemblage from feature 40085 was dominated by oak with smaller amounts of hazel and willow/poplar, and that from feature 40103 was dominated by *rosaceae* (rose family) charcoal with smaller amounts of hazel and willow/poplar (McKenna, volume 3, part XIX.3). Feature 40103 was some distance from the pits and postholes with Early Neolithic pottery and was not certainly of that date.

Interpretation

The small group of pits and postholes north of the ring ditch was separate from the rest of the scatter of features and quite coherent as a group. It seems probable that all the features were contemporary and, as there were two convincing postholes and other possible postholes, these features may represent a small temporary structure and related activity. Only Early Neolithic pottery came from this group, some of it quite fresh and uneroded, with no other later pottery from anywhere nearby. An Early Neolithic date for these features is therefore likely. As is often the case the original form of the proposed structure cannot be reconstructed.

Some of the others features to the west might have been related but it is not possible to prove that they were and they could equally be from later activity. The small amount of pottery in these other features was either Bronze Age or probably residual Early Neolithic sherds in later features. Many of these features probably date to the Bronze Age or later though they are not related to the ceremonial monuments in a clear way.

Pits 40071 and 40076 might possibly be of Early Neolithic date. The pottery they contained was very fragmentary

and not easily datable. It was suggested that they were residual but this is the only pottery in the immediate area and was probably related to the activity represented by the pits. Pit 40076 was probably an earth oven suggesting at least temporary occupation. The quernstone in 40071 is also typically domestic, but the placing of the heavily burnt quernstone in the pit is indicative of ritual activity. This could support the contention that many of these features were related to the monuments, although ritual of this sort could certainly occur in a domestic context and the quern is not diagnostic of either Neolithic or Bronze Age.

Later Neolithic

In several widely separated locations across the site there were pit groups dating to the Middle and Late Neolithic, and some dating to the Bronze Age. Pit groups or pit clusters are a recognised site type for the Neolithic and Bronze Age. The English Heritage Thesaurus defines 'pit cluster' as "A spatially discrete group of pits usually containing artefactual material, especially pottery, with little or no accompanying evidence for structural features. Use only for Neolithic and Bronze Age monuments." This definition separates this site type from pits found on settlement sites or with other features. However there is now some consensus amongst archaeologists that pit groups were related to settlement and the lack of other features may be due to the loss of slighter, shallower features. Two classic Neolithic pit groups were found at Parc Cybi but other pits with Middle and Late Neolithic pottery were more complex. Pits in Area D containing Grooved Ware were associated with a hearth and pits in Area J were scattered amongst settlement features of probably a later date.

Classic pit clusters

Middle Neolithic pit cluster in Area I (PRN 31572)

See figure 24 for general location and figure 25 for detailed plans and figure 26 for sections.

In Area Ia, on a flat plateau not far from the edge of a fairly steep north-west facing scarp (SH 2569 8062), was a group of 9 pits (18063, 21208, 21210, 21212, 21215, 21217, 21219, 21221, 25054). These were all nearly circular, bowl-shaped pits, no more than 1.2m in diameter and up to 0.45m deep (plate 31). Generally they had single fills but some had two identifiable fills. Three of the pits (25054, 21219, and 21221) were located very close together but not quite cutting each other. The remainder were fairly randomly scattered.

The most significant feature of these pits was the quantity and range of artefacts that they contained. Most contained pottery, including some large sherds but only parts of vessels. There were 34 sherds and 53 fragments from 3 different Fengate Ware pots (volume 3 Fig I.1.1.7), together with 2 residual sherds of Early Neolithic pottery. More than 50% of the pottery came from Pit 21221 and its neighbour 25054, and there were several linkages in their content, while there were no linkages between the other pits (Lynch vol III, part I.1.1). There was also a significant quantity of flint and chert, mostly flakes and debitage with few tools. The debitage indicates that knapping was taking place nearby, or at least at the source of the material in the pits. A large grinding slab with



Plate 31. Pits 21221 and 25054 half sectioned with pit 21219 fully excavated in the background

worn surfaces on both faces (sf1147) came from pit 21208, and suggests possibly food processing. Occasional fragments of hammerstone and other metalworking waste is probably later contamination. The pits also contained tiny fragments of burnt bone and some burnt stones. Of the bone fragments two fragments from pit 21221 were identifiable as sheep-sized long bone fragments, but all the rest were unidentifiable.

Pit 21215 contained a fine perforated mace-head made by modification of a cobble of fine sandstone (sf1145, volume 3, Fig. VI.5.1). It is ovoid in plan with a slightly flattened end, and the perforation is central lengthways but set towards the end away from the 'working' end. The stone was probably chosen for its decorative value, rather than its strength but one end does have traces of light use. Pit 21221 also contained a modified pebble that is possibly an unfinished mace-head (sf1172, volume 3, Fig. VI.5.1). This is a distinctive, natural, but perfectly rounded cobble with small, opposing, pecked cup-marks on each face.

The term "macehead" is a traditional archaeological term but does imply an interpretation of these objects as having a ceremonial rather than practical function. Certainly some of these objects, especially from Scotland, but also one from Maesmore, Corwen, Denbighshire (Roe 1968, 165), are finely decorated and must have been high status items. However a study on maceheads from Orkney found impact damage, pecking and other signs of use even on ones made of decorative stones. Many maceheads are also broken, though the breaks may have been deliberate rather than accidental through use (Anderson-Whymark *et al* 2017).

Roe (1968, 156-162; 1979, 30) found that maceheads were associated with Grooved Ware (or Rinyo-Clacton Ware) and generally not with Peterborough Ware. Simpson (1988) also stresses this link with Grooved Ware in Britain. Anderson-Whymark *et al* (2017) found that in Orkney maceheads were Late Neolithic in date and did not occur before about 3200 cal BC. The discovery of a macehead in this pit group containing Fengate Ware places the Parc Cybi find early in the occurrence of the find type.

The flint debitage, pot sherds, burnt bone, charcoal and burnt stones suggest the normal range of domestic activities, but the stone macehead from pit 21215 indicates possible deliberate deposition. Unlike most of the other pits Pit 21215 produced no pottery and only two flint flakes, suggesting a different kind of deposition in this pit. The charcoal from the pits was almost entirely oak, though one sample also had smaller amount of hazel charcoal (McKenna, volume 3, part XIX.3). Most of the pits contained fragments of charred hazel nut shells with a sample from pit 21219 containing over 300 fragments. Several of the pits also produced small numbers of charred cereal grains, none of which were identifiable to species (McKenna, volume 3, part XIX.4), but indicate that some cereals were being consumed.

In addition to the features that come under PRN 31598, discussed below, there were occasional other pits scattered across Area I (figure 24). Fifteen metres east of the main group was a single pit (18059) (PRN 76098) (plate 32), with a layer of charcoal in its base and many burnt stones in its fill. This was a circular pit, which contained a considerable quantity of flint and chert and burnt bone fragments, but only a few crumbs of probably Middle Bronze Age pottery (sf1250). The lithics were mainly waste pieces, including one chert irregular core, but there was also a chert hollow scraper. Most of the bone was unidentifiable but they were mainly from a sheep-sized mammal and three pieces were long bone fragments. All the charcoal recovered as from oak.



Plate 32. Pit 18059 half sectioned

Near the northern edge of Area H was another isolated circular pit (50112) (figure 17), containing charcoal and a considerable quantity of flint debitage. It also had crumbs of pottery (sf1436, 1535), but these were of a vesicular fabric and probably Early Neolithic indicating that this feature was related to the Neolithic building to the south rather than to the pits of PRN 31572. However two other pits did contain Fengate Ware and indicate that the main pit group was not entirely isolated. Close to the edge of the scarp was a small pit (21037) (PRN 76097) (figure 24, plate 33) surviving to a depth of only 0.1m and containing flecks of charcoal and flint debitage. It also had some small sherds of Fengate Ware (sf 1033) (volume 3 Fig I.1.1.7). Pit 19075 (PRN 76099), over 40m south-east of pit group PRN 31572 (figure 24, plate 34), was also a small, shallow pit containing charcoal and flint debitage but also two sherds of Fengate Ware, one a substantial piece of a heavy decorated collar (sf1037, volume 3 Fig I.1.1.7). The lithic pieces are mainly waste, with two cores, one irregular and one scalar. The pit also contained two burnt fragments of sheep-sized long bone (sf1334) and numerous fragments of charred hazelnut shells.

There was a group of three small pits (11001, 11003, and 11007) near the top of the scarp slope to the north of pit 21037 (figure 24). They were no more than 0.75m in length and 0.24m in depth and contained no charcoal and no finds, so it is not known if they also represented Neolithic activity, were related to the Iron Age activity to the south (PRN 31598) or were of an entirely different date.

The evaluation trenching in 2001 revealed a figure of 8 shaped pit or two conjoined pits full of stones, including two large ones. There were no finds (Davidson 2002, 44). This feature was recorded as site 41 (PRN 14587) and its exact location was identified in the current works and the feature was plotted as 19074 (figure 24). This does not seem to be related to the other features in this area and may be a post medieval pit used to bury stones out of the reach of the plough.



Plate 33. Pit 21037 half sectioned



Plate 34. Pit 19075 before excavation showing burnt stone in the fill

Radiocarbon dates

Table 3. Radiocarbon dates from Pit Group PRN 31527

Lab ID	Context	Cut	Feature type	Material	Radiocarbon age (BP)	Calibrated date (95% probability)
SUERC-81342	18064	18063	pit	charred hazelnut shell	4447 \pm 22	3330–3010 cal BC
SUERC-83275	21222	21221	pit	charred hazelnut shell	4402 \pm 29	3270–2920 cal BC
SUERC-83276	21222	21221	pit	charred hazelnut shell	4437 \pm 29	3330–2930 cal BC
SUERC-85149	21216	21215	pit	charred hazelnut shell	4437 \pm 24	3330–2930 cal BC
SUERC-85150	21216	21215	pit	charred hazelnut shell	4441 \pm 24	3330–2940 cal BC

Five dates were obtained from this pit group and the model of these estimates that the pit activity began in 3205–3025 cal BC (94% probability), and probably 3110–3045 cal BC (68% probability). The activity ended in 3095–2910 cal BC (95% probability), and probably in 3060–3000 cal BC (68% probability). The overall duration of activity is estimated to have occurred for 1–260 years (95% probability), and probably for 1–75 years (68% probability) (Hamilton, volume 3 part XXIV). This suggests that the use of the pit group could have been short lived, though this cannot be proved from the current dates.

The dates from pit 21215, which contained the macehead, as the same as those from the other pits, so there is no indication that the macehead was a later addition to the group. However the dates are towards the end of the range for Fengate Ware in Wales and this may indicate the start of use of maceheads in this area, shortly before the adoption of Grooved Ware.

Pit group in Area K9 (PRN 31573)

See figure 27 for plan and figure 28 for sections

Main pit cluster

In the northern part of Area K9 (SH 25675 80781) were a group of seven large pits. Four of the pits (80594, 80686, 80602 and 80788) formed a closely spaced shallow arc, with three further pits (80606, 80608 and 80610) being located 2m to the north. All of the pits were sub-circular in plan, and had steep sides and relatively flat bases (figure 28.1-5, plates 35 and 36)). The pits measured between 0.5m-1.12m in length, 0.34m-0.82m in width, and 0.22m-0.28m in depth, had charcoal-rich stony fills, and with the exception of pit 80608, all produced fire-cracked stone.

The closely spaced pits to the south (80594, 80686, 80602, and 80788) all produced prehistoric ceramics, and with the exception of pit 80788, all the pits had multiple fills. The pottery was Mid-Neolithic Fengate Ware and included rims, bases and decorated sherds. Flint and chert flakes and debitage and some fragments of burnt bone were also found in some of the pits. Pits 80608 and 80606 did not produce any artefacts, and 80610 had only a single sherd, but also contained a flint flake and burnt bone fragments.

Several of the pits (80602, 80610, 80608 and 80606) contained large rounded pebbles and cobbles, particularly pressed into the sides and bases of the cuts, but none of these seemed to be post-packing or were consistent enough to be lining for the pits. Pit 80788 was truncated to the east by gully 80592, possibly related to the much later corn dryer to the south (see building complex in Area K9 below).

In close proximity to pits 80606 and 80608, were two small postholes 80750 and 80738, which measured between 0.24m-0.32m in length, 0.25m in width, and up to 0.25m in depth. Both features were sub-circular in plan and had steep, almost vertical sides with tapered bases. Pit 80750 had four well-rounded cobbles located at the base and a single fill, while pit 80738 had two charcoal-rich fills.

There were four burnt out root hollows located to the west of the pit group (80734, 80736, 80777, and 80740), all of which were irregular in shape and contained charcoal flecks within their fills. To the north of the pit group was an area of relict soil (80722/3), which contained a sherd of prehistoric pottery but no other finds.



Plate 35. Pit 80594 fully excavated



Plate 36. Pit 80602 fully excavated

The two postholes adjacent to the pits suggest that this may not be a purely classic pit cluster as the postholes indicate the possible presence of some kind of structure. The pits were also possibly not as isolated from other contemporary activity as pit cluster PRN 31572.

All the pottery from this pit group is considered to be in the Mortlake style of Peterborough Ware. Nine different pots may be recognised but only two, Pots A and F, can be reconstructed in any meaningful way (volume 3 Fig I.1.1.6). Pot A is a classic Mortlake bowl and Pot F is the lower half of a similar bowl.

The sherds come from 5 pits, one of which (80686) contained the bulk of the material, with 2 sherds in the adjacent pit 80602, 11 sherds from Pit 80594 and 2 sherds from Pit 80788. Sherds from pot A were found in both pits 80686 and 80602, while sherds from pot E were found in pits 80594 and 80788. The three pits to the north contained very few finds but pit 80610 contained a single sherd, which came from pot F, also found in pit 80686. The presence of sherds from a vessel in more than one pit suggests either these pits were infilled at the same time or that they were filled by the same artefact containing deposit, e.g. a midden. The charcoal, fire-cracked stones and burnt bone fragments are suggestive of a midden containing domestic refuse.

There was more hazel charcoal from this pit group than from PRN 31572 in Area I. Of the two samples from pit 80606 one contained only oak charcoal and the other was dominated by hazel charcoal. There were two samples from pit 80686; one contained only oak charcoal, and the other was dominated by oak with smaller amounts of willow/poplar and hazel charcoal. Pit 80602 contained equal amounts of hazel and oak charcoal and samples from pit 80594 were dominated by hazel (McKenna, volume 3, part XIX.3).

Outlying features

Located approximately 4m to the south-west of the pit group was an area of relict soil which had been preserved by shallower machining around the Roman stone building (described below see building complex in Area K9). It is thought to have been more widespread, but was removed during the strip and map process. This relict soil consisted of two layers, 80828 and 80819. Layer 80828 was a dark red-brown silt-clay, which was at least 6.0m in length, 5.0m in width, and 0.15m in depth. Layer 80819, which was located to the north of deposit 80828 and laid directly above it, was a grey-brown clayey silt. These deposits appeared to be colluvium caused by ploughing.

Some features, including a series of intercutting pits, cut the relict soil but were underneath a Roman period building. These features are assumed to be closer in date to the Roman than Neolithic period and are discussed below with the building.

However a small number of features were sealed under the relict soil. These were associated with a small patch of stones (81159) and a mottled clayey deposit with frequent charcoal inclusions (81171). There was also a small area of earlier relict soil deposit (81214), 0.07m in depth. Deposit 81171 contained fragments of burnt daub (sf 6178, 6179, 6478) and is suggested as being an occupation deposit.

These early features included postholes, pits and a gully. Postholes 81236 and 81025 were both sub-circular in plan and measured 0.4m in length, 0.3m in width, and 0.18m to 0.12m in depth respectively. Pit 81176 was circular in plan with steep sides and a flat base. It measured 0.51m in diameter, 0.28m in depth and had three fills. The pit seemed to be sealed with a schist slab and a burnt sandstone cobble covered by a charcoal-rich black clay-silt which produced a small fragment of burnt bone (figure 28.6). Roughly circular pit 81224 measured 0.7m in length, 0.6m in width, and 0.18m in depth. Its primary fill was a deposit very rich in charcoal, suggesting that this may have been a fire pit, while its upper fill contained a significant number of stones. The cut of the pit was not strongly heat-reddened but part of it was a richer red-brown than normal for the natural gravels suggesting some oxidation from a fire (figure 28.7). A straight gully (81183) was orientated north-west to south-east and measured 1.2m in length, 0.5m in width, and 0.3m in depth. Towards the centre of the gully it was cut by posthole 81202, which was 0.4m in diameter, and 0.3m in depth (figure 28.8). The posthole's fill had occasional cobbles but no clear post-packing material. At its north-western end the gully was truncated by a later corn-dryer (80835) (see building complex in Area K9 below).

Radiocarbon dates

Table 4. Radiocarbon dates from Pit Group PRN 31573

Lab ID	Context	Cut	Feature type	Material	Radiocarbon age (BP)	Calibrated date (95% probability)
SUERC-81359	80638	80594	pit	charred hazelnut shell	4500 ±24	3350–3090 cal BC
SUERC-81358	80684	80686	pit	charred hazelnut shell	4510 ±24	3350–3100 cal BC
SUERC-83287	80685	80686	pit	charred hazelnut shell	4485 ±29	3350–3030 cal BC

Three radiocarbon dates were obtained from this pit group and the model created from these estimates that this activity began in 3755–3105 cal BC (95% probability), and probably in 3390–3165 cal BC (68% probability). The activity ended in 3335–2665 cal BC (95% probability), and probably in either 3285–3255 cal BC (4% probability) or 3240–3035 cal BC (64% probability). The total dated period of activity was up to 970 years (95% probability), and probably up to 265 years (68% probability) (Hamilton, volume 3 part XXIV). This could be taken to suggest that this site was in use for a longer period than pit group PRN 31572 but the longer potential duration is probably due to increased uncertainty resulting from a plateau in the calibration curve.

Other sites with Middle or Late Neolithic pottery

Late Neolithic house in Area D (PRN 31574)

See figure 29

Description

Towards the southern edge of Area D3, on the edge of the gravel plateau (SH 25268 80871) was a group of features. An area of burnt subsoil was surrounded by a shallow gully (60125) (plate 37). The gully was 0.2m wide and 0.1m deep and defined a rectangular area. Its base was uneven, suggesting a series of hollows rather than a single gully, and it may possibly have held stones to form an edge around a fire. To the east of this were two sub-circular pits (60093 and 60162), and a shallow scoop (60164) (plates 38 and 39). The pits measured 0.80m and 0.66m respectively and were about 0.3m deep. Scoop 60164 was only 0.07m deep. The fill of pit 60093 contained quantities of heat-cracked stone, perhaps suggestive of its use as an earth oven, though there were no charcoal layers or evidence of burning in the pit.

Both pits contained some prehistoric pottery, but 60093 contained most. All the pottery from 60093 and the two sherds from 60162 were Grooved Ware. Most of the pottery in pit 60093 was distributed around the edge of the pit, possibly due to deliberate placement. Flint flakes and debitage were also included in these pits. Other features in this area were probably root holes or other natural hollows, although feature 60135 contained a fragment of flint.



Plate 37. Hearth defined by gully 60125



Plate 38. Pit 60093 half sectioned



Plate 39. Pit 60162 half sectioned

Finds and dates

Only one feature (pit 60093) contained any significant quantity of pottery. Pit 60162 contained 2 undecorated sherds in a fabric suggesting that they might belong with the Grooved Ware from Pit 60093.

Pit 60093 had three distinguishable fills but the mixture of pottery in them suggests that the differences had little significance. The pit contained 26 sherds and 25 fragments all in approximately the same fabric: hard, compact with well-crushed stone grits. Five pots could be identified but only one was present in any quantity and could be reconstructed on paper. Pot W is a tub-like bowl decorated all over with neat vertical lines of sharply cut impressions. Two other upright rims are present (Pot Y and Pot Z) (volume 3 Fig I.1.1.9). Pot X is represented by a narrow segment of a rounded incurving rim with a band of decoration of horizontal grooves and oblique square-ended stab marks.

There was a small assemblage of lithics. The waste pieces are predominantly of flint. There are five retouched pieces, which is a high proportion of retouched to waste pieces, and these are mainly of a domestic nature, two scrapers, one edge retouched knife (sf1652) and one piercer (sf4452.1). Similarly there are three utilised pieces,

which are all cutting tools. There is also the possible butt of a chisel-shaped arrowhead (sf1963.8). Pit 60093 also contained a small, utilised, cuboid-shaped cobble of black chert or silicate metamorphic rock (sf1655), which had been used as a burnisher, with heavy all over polish.

The charcoal assemblages from the pits were dominated by oak charcoal with smaller amounts of hazel and willow/poplar charcoal, though a sample from pit 60162 was dominated by hazel charcoal. The sample from the hearth (60125) was dominated by hazel, with a smaller amount of oak charcoal also present (McKenna, volume 3, part XIX.3). The charred plant remains from the samples were dominated by hazel nut shell fragments, with over one thousand present in the sample from pit 60162. However there were also a small number of charred cereal grains present, although these could not be identified to species, and some seeds of weeds associated with cultivation (McKenna, volume 3, part XIX.4).

Table 5. Radiocarbon dates from Late Neolithic hut PRN 31574

Lab ID	Context	Cut	Feature type	Material	Radiocarbon age (BP)	Calibrated date (95% probability)
SUERC-81357	60100	60093	pit	charred hazelnut shell	4105 ±24	2860–2570 cal BC
SUERC-83286	60092	60093	pit	charred hazelnut shell	4110 ±29	2870–2570 cal BC
SUERC-85151	60163	60162	pit	charred hazelnut shell	4050 ±20	2840–2480 cal BC

Three dates were obtained from the two pits containing Grooved Ware. The model produced from these dates estimates that this activity began in either 3340–3290 cal BC (2% probability) or 3155–2580 cal BC (93% probability), and probably in either 2865–2820 cal BC (6% probability) or 2785–2585 cal BC (62% probability). The activity lasted for up to 955 years (95% probability), and probably for up to 350 years (68% probability). Dated activity ceased in either 2830–2810 cal BC (1% probability), 2655–2145 cal BC (92% probability), or 2075–2020 cal BC (2% probability), and probably in 2625–2440 cal BC (68% probability) (Hamilton, volume 3 part XXIV). The potential duration for this site is very long but this is almost certainly due to the increased uncertainty resulting from a plateau in the calibration curve. The archaeological remains suggest a slight structure used for a short period with no repeated use, and the dates equally will support a very short period of use.

Later Neolithic activity in Area J

See figure 30 for general location of features

Introduction

Numerous features were scattered over the south-western part of Area J, to the north-west of, and below, the base of a rocky escarpment. Some of these features produced Middle and Late Neolithic pottery, and a few produced occasional Bronze Age sherds. There was an assumption in the field and during the assessment of potential phase of the project that many of these features represented Neolithic pit clusters, however many of the features were postholes, not pits, and the number that could be securely dated to the Neolithic by finds was small. The use of pit group numbers has therefore been abandoned in this report and some of the feature groups have been split up. Most of the features are discussed at the end of the Bronze Age section below, with only certainly Neolithic features discussed here. PRNs will be used to identify different groups of features that have now been grouped by period where possible.

Pits with Fengate Ware (PRN 74831)

Figure 31

Within the scatter of prehistoric features in Area J, at SH 25792 80723, were two pits (70173 and 70181) and one posthole (70168). Pit 70173 was an oval-shaped pit measuring 0.70m by 0.64m, and 0.32m deep. Its fill contained frequent charcoal flecks and a considerable number of flint flakes and debitage, as well as sherds of pottery including a rim-sherd from a Fengate vessel (sf1705) (volume 3 Fig I.1.1.7). One of the flakes (sf1823) was of Graig Lwyd stone and traces of a polished surface showed that it had come from a polished stone axe, and usewear analysis showed it had been used as a cutting tool. Pit 70181 was more irregular and cut a burnt-out tree-root hollow (70150) at its western end. It also contained a number of finds including flint and a sherd and

fragments compatible with Fengate Ware. Feature 70168 was oval in plan and measured 0.6m by 0.4m and was 0.34m deep. The sides were steep except on the southern side where the feature sloped in gradually to a narrow base. It is suggested that this is the posthole for a post driven in at an angle, or possibly levered out. It contained no finds. Charcoal from both pits 70173 and 70181 was dominated by hazel with a smaller amount of oak willow/poplar and *rosaceae* (rose family) also present.

Some of the other nearby features might belong to this phase of activity but most make more sense with later activity described below.

Pits with Grooved Ware (PRN 74832)

Figure 32

Not far from the foot of the rocky scarp were two large intercutting pits (SH 25770 80718). Pit 70529 was oval with vertical sides and a flat base and measured 0.95m by 0.63m, and 0.32m deep. The fills of the pit were particularly complex, with some fills only being present around the edges of the pit, however no re-cuts could be discerned. Although oak dominated the charcoal recovered from this pit there were significant proportions of hazel and willow/poplar charcoal present as well. The few charred hazel nut shells from the fill may have been come from nuts on fuelwood branches rather than being used as food.

On the north-eastern side pit 70503 cut through the fill of pit 70529. Pit 70503 was roughly kidney-shaped in plan with steep sides and a flat base, measured 1.36m by 0.77m, and 0.22m deep, and had several fills. These two features were particularly rich in finds with many flint and chert flakes and some other worked stone. Numerous large pieces of Grooved Ware pottery were also recovered. Several pots are involved and some can be largely reconstructed (volume 3 Fig I.1.1.8). Only hazel charcoal was recovered from this pit.

One feature near the pits was a burnt out tree root hollow (70498) and others were natural hollows (70495 and 70590). However, feature 70480 was more convincing. It was about 0.4m in diameter and 0.2m deep with fairly steep sides and could have been a posthole, though it had no packing stones. This feature contained small decorated sherds (sf6380), also Grooved Ware, as well as a retouched piece of chert (sf6424). All the charcoal from this posthole was oak, and it also contained charred hazel nut shell fragments.

The pottery from Pit 70503 came from a context (70502) in the upper fill and is almost certainly redeposited from the disturbed Pit 70529 but it also contains sherds, which are very similar to those from posthole 70480. Pieces of distinctive pots such as Pots O, Q and R can be recognised in both pits (volume 3 Fig I.1.1.8). Context 70502 contained 31 sherds from perhaps 12 different pots, most of them differentiated by fabric and minor variants of decoration, because very little of each pot is present.

In Pit 70529 there were 44 sherds from possibly 15 pots. These come from several contexts at the bottom and the sides, suggesting that sherds were widely dispersed in the original fillings. Again not much of any one pot survives except for Pot Q, but the majority of the pots can be reconstructed as some kind of tub with a flat base, gently sloping sides and an upright rim. This pit also produced a working slab of fine dolerite (sf6391) and pit 70503 contained a stone (sf6400) with polished faces. These objects possibly suggest some particular activity happening nearby, possibly of an industrial nature, rather than purely domestic, food related.

Radiocarbon dates

Table 6. Radiocarbon dates from pits 70503 and 70529 (PRN 74832)

Lab ID	Context	Cut	Feature type	Material	Radiocarbon age (BP)	Calibrated date (95% probability)
SUERC-81333	70528	70529	pit	charred hazelnut shell	4133 ±23	2880–2600 cal BC
SUERC-83266	70536	70529	pit	charred hazelnut shell	4195 ±29	2900–2670 cal BC
SUERC-81337	70502	70503	pit	charcoal: hazel	4175 ±23	2890–2670 cal BC
SUERC-83267	70502	70503	pit	charred hazelnut shell	4172 ±29	2890–2630 cal BC

Two samples were dated from each of pits 70503 and 70529. These dates were all very similar and could represent

a short period of activity sometime after 2900 cal BC.

Interpretation of Middle and Late Neolithic pit groups

Pit groups PRN 31572 in Area I and PRN 31573 in Area K9 were classic pit clusters with simple bowl-shaped pits containing artefacts, charcoal and burnt stones that would be typical of a midden deposit. In the case of pit group PRN 31572 there was also the inclusion of a special find in the form of a macehead, though in both groups larger pieces of pottery might possibly have been specially selected for inclusion.

Within pit group PRN 31573 were two postholes (80738 and 80750), possibly hinting at the former presence of a structure. Also in the area there were features under the relict soil to the south-west of the pit group, which appeared to be prehistoric in date. The presence of postholes around occupation or floor deposit 81171 could indicate a small structure and pit 81224 may have been a hearth or pit oven positioned just outside. However, the lack of datable finds from these features makes it impossible to suggest a relationship with the pit group, and the lack of even small sherds of Neolithic pottery perhaps makes this unlikely.

The isolated pits in Area I, 19075 and 21037, show a wider use of Fengate Ware. Their fills were similar to those of the pit clusters and can also be suggested as containing domestic waste, indicating that settlement was unlikely to have been far away. Pit group PRN 74831 consisted of two pits and a posthole, with fewer finds, but with one large sherd of Fengate Ware that might have been specially selected for inclusion in the pit. The presence of a flake from a polished Graig Lwyd axe might also be considered significant but this was a single, small flake, more likely to have been included incidentally than to have been deliberately selected.

The two intercutting pits in Area J containing Grooved Ware (PRN 74832) can hardly be described as a pit cluster, but the deposition of large sherds is similar to the practices in the classic pit clusters. Most pit clusters are notable for the lack of intercutting pits, while these two pits were clearly sequential. Their complex fills are also unlike classic pit clusters, which generally have simple fills as if backfilled quickly. The fills give little indication of the function of these pits, other than the deposition of domestic waste being part of their history. These pits were also associated with a posthole, demonstrated as being contemporary by the Grooved Ware sherds it contained. Occasional postholes are therefore associated with pits containing Mortlake, Fengate and Grooved Ware pottery on Parc Cybi, hinting that the pit clusters were not entirely isolated from any structures.

The most informative of the pit groups is that in Area D (PRN 31574). This site is not a classic pit cluster as it was composed of two pits and a shallow scoop next to a hearth. There were no surviving structural elements, but the presence of the hearth strongly suggests that there was a structure here.

Later Neolithic structures are rare in Wales and most possible settlements are represented by pits alone. The classic examples of structures of this period were found at Trelystan, Powys where there were two small, sub-square or nearly circular, stake-built structures, one (structure B) associated with Grooved Ware pottery (Britnell 1982). Both structures had central hearths defined by areas of heat-reddened sub-soil. Structure A had slots on two sides of the hearth while in structure B the hearth was enclosed within a square formed of shallow slots. On one side two burnt shale slabs survived within the slot and it was clear that the function of the slot was to hold slabs to create a surround for the hearth. The similarity of these hearths to that in the Area D pit group strongly suggests that this also had a hearth surrounded by stone slabs. Both Trelystan structures had a small number of pits inside the stake walls, close to the central hearth. They had been preserved under a Bronze Age barrow, but if they have been subjected to ploughing it is likely that the stakeholes would have been lost and the surviving features would have closely resembled those at Parc Cybi. From this it is suggested that this “pit group” was actually the remains of occupation within a small structure probably measuring not more than 4m across, in comparison with the Trelystan structures that measured 4.5m by 4m and 3.9m by 4.2m. At Parc Cybi a structure about the size of Trelystan B, centred on the hearth, would include features 60093, 60162 and 60164 (figure 29).

The similarity to Trelystan makes it very likely that these features represent the remains of a Late Neolithic structure, which was domestic in function. The Trelystan structures were suggested as having either vertical walls capped with a ring-beam and conical roof or made in a bee-hive form with flexible poles like a bender (Britnell 1982, 184; Britnell 1981, 201). There would be limited space inside for sleeping and the structures were probably short-lived, but it is probably not unreasonable to call these structures houses, or even round-houses as Lynch does (Lynch 2000, fig 303), though Lynch does question whether there was enough room to live in them (Frances Lynch pers. comm.). The three structures discovered at Upper Ninepence, Hindwell, Powys (Gibson 1999, 29-47) were also similar, though larger (between 6m and 12m in diameter), and lacked the stone-bordered hearth. These

structures were also associated with Grooved Ware pottery. Again, these structures were sealed under a round barrow and without this protection would probably have appeared as a collection of pits.

Late Neolithic and Beaker Period Burnt Mounds

Burnt mounds are a very common site-type in Ireland and many parts of Britain, most often interpreted as cooking sites (O'Kelly 1954), although their actual function has been debated (Barfield and Hodder 1987, Jeffery 1991, Barfield 1991). Perhaps surprisingly for the size of the site only two definite burnt mounds were found on Parc Cybi. Both were in Area E and one was a large mound with three troughs or pits and a large complex pit that may originally have acted as a well. The other was much smaller with a single small pit. While burnt mounds are often thought of as Bronze Age features both of these proved to be earlier.

Large burnt mound (PRN 31582)

See figures 33, 34 and 35, see figure 7 for location

Description

Burnt Mound

A large mound of burnt and fire-cracked stone and charcoal was excavated on the south-eastern boundary of Area E (SH 25335 80747) (figure 33.3). The feature had been incorporated into a later post-medieval field boundary and later material had been heaped on-top of the mound (plate 40). Deposits 31421 and 31427 were both mixed deposits containing approximately 50% burnt mound and 50% bank material and are thought to be the result of material from the immediate vicinity being utilised in the creation/enhancement of a field boundary. The bank had been topped with a dry-stone wall (31437).



Plate 40. Burnt mound material in section under remains of field boundary

The burnt mound was situated on a low lying, sloping area of natural sand and gravel overlooking but not immediately adjacent to a marshy zone (plate 41). The mound covered an area in excess of 15m by 8m and survived to a maximum height of just over 0.8m. Unfortunately it was not possible to determine the full extent of the feature or to distinguish the shape of the mound in plan due to over-zealous machine stripping prior to its identification as a burnt mound. What was clear from the surviving material was that the burnt stone increased in volume/height at the base of the slope and this may be indicative of the characteristic crescentic burnt mound shape. It is also possible however that the material could have been banked this way during a much later period and was built up along this zone as bank material.

In section it was possible to view a clearly stratified series of burnt stone deposits representative of a series of deposition episodes occurring over a prolonged period of time (figure 33). These layers were formed from small



Plate 41. Location of burnt mound

fragments of burnt, fire-cracked stone, which were present in proportions varying from 25-90%. Most deposits contained small white quartzite fragments and were blackened with a high charcoal content.

In all eleven separate contexts were identified within the main burnt mound deposit, of these deposits seven (31423, 31425, 31429, 31432, 31516, 31517 and 31518) were composed of in excesses of 75% burnt/ fire-cracked stone. No artefactual material was recovered from the burnt mound deposits.

Associated Burnt Mound Pits

There were a series of features associated with the burnt mound spread but the stratigraphy was unclear due to the machining error, however judging from the surviving material, it does appear that the mound at least partially covered these pits. This is likely to be due to slumping and it is presumed that the features are broadly contemporary.

The underlying features were a group of three smaller pits (31283, 31289, 31523) and a larger pit group (31303) which were clustered together along what is presumed to be the eastern edge of the burnt mound spread (figure 34, plate 42). Feature (31283) was an oval pit measuring 1.1m by 1.3m with steeply sloping, near vertical sides and a



Plate 42. Pits and well under the burnt mound

flat base. The feature survived to a depth of 0.53m and contained a single dark grey-black sandy silt fill (31284) which was predominantly formed of burnt stone. This material was impossible to distinguish from the overlying burnt mound material.

Immediately to the west of feature (31283) was a similar sub-oval pit (31289) measuring approximately 1.1m by 1.3m that survived to a depth of 0.28m. The pit had near vertical sides, a flat base and contained two distinct fills (31411 and 31288). The upper fill (31288) had a higher proportion of heat-cracked stone, including white quartzite fragments. It also contained some larger angular stones that had been heated and presumably used in the pit rather than being dumped from elsewhere. The lower fill (31411) was a charcoal-rich layer that may have indicated a fire lit directly in the base of the pit, although the sides of the pit had not been heat reddened.

To the south of feature 31289 lay a larger, elongated sub-oval feature (31523). This pit measured 2.10m by 1.20m and survived to a maximum depth of 0.45m with near vertical sides and a flat base like the neighbouring pits. Pit 31523 contained three fills (31524, 31558 and 31559). All of which contained some charcoal but a much lower percentage of heat-cracked stone.

These pits were thought to have been utilised to hold water into which hot stone was placed. Any lining material these features may have once contained has not survived. It was, however, observed in the field that lining might not have been necessary as the pits held water for a considerable time following heavy rain. No associated hearths were observed but it is possible that they simply did not survive the initial machining or were eroded in antiquity.

To the south-west of these smaller pits lay the much larger pit group (31303) (figure 34, plate 43). This group contained four intercutting pits (31593, 31415, 31414 and 31413) (figure 35). The primary cut in this group was cut 31593 but little remained of this feature following subsequent re-cutting of the pit. The base of the cut was approximately 1.60m below the current ground level, although the actual surviving depth of the feature was 0.18m. Feature 31593 was roughly circular in plan with a very slightly concave base and concave sides sloping at an angle of approximately 40°. This feature appears to have been deliberately backfilled with burnt mound material and contained a single moderately compact dark grey sandy silt fill (31594) with frequent charcoal and burnt stone inclusions.

Feature 31593 was re-cut by the largest of the pits in the group (31415). The dimensions of this pit are difficult to ascertain due to the collapse of the pit sides and the resultant undercutting. This is due to underlying geology as the area is formed from bands of gravel and sand, and it is believed that once exposed the sand layers were eroded by water causing the overlying gravel to collapse.

The pit was roughly sub-circular in plan and measured approximately 3m in diameter. This dimension is for the cut as visible on the surface but it is important to note that there was an overhang of approximately 1m on the western side of the feature. Feature 31415 was about 1.48m deep and had steep sides, except on the western side



Plate 43. Well (feature 31303) fully excavated, showing eroded sides

where the side of the pit was undercut. Pit 31415 had a flat base and would have been capable of holding a huge volume of water.

The pit contained twelve distinct fills and the primary fill in the sequence was a mid-grey clay with frequent charcoal inclusions (31370). This deposit was approximately 0.10m in depth. It is possible that this fill is the result of a silting episode following the end of the first phase of the pits usage. It is also possible that this deposit was the remains of a clay lining utilised to stop water draining through the underlying sand as it was noted during excavation that following its removal the pit was well-drained. This was in contrast to the smaller neighbouring pits, which were observed to hold water following heavy rain.

Overlying layer 31370 was a mixed layer of dark grey silty sand and backfilled burnt mound material (31565). This was in turn overlain by a layer of compact mid-grey silty sand with occasional charcoal flecks (31369) interpreted as a layer of silting. Deposit (31564) was a compact gravel deposit, which had eroded from the side of the pit and lay above (31369). A further layer of burnt mound material (31368) was deposited on-top of the gravel, followed by an additional layer of similar material (31561).

Context 31561 was overlain by a layer (31373) of burnt mound deposit heavily stained by iron panning and by gravel (31563) collapsed from the pit edge. More deposits (31366 and 31560) with high proportions of burnt stone completed this sequence of filling with the final deposits (31562) being a compact dark grey clay layer containing frequent charcoal fragments. This layer has been interpreted as a layer of silting occurring in a period between usages but it is also possible that it represents the remainder of a clay lining layer that was dug away during the creation of pit 31414 cut into the top of these fills.

Pit 31414 was roughly oval in plan, measuring 2.3m by 1.8m. The feature survived to a maximum depth of 0.7m and had an asymmetric profile. The break of slope to the west was sharp (approximately 85°) whilst the feature had a gentler slightly concave eastern side. The base of the feature was flat. The pit contained a single fill (31372) which was a light to mid grey clay containing approximately 60% burnt stone and occasional charcoal flecks. Within this fill was the remains of a possible stone lining composed of flat slabs of schist that were not fire affected (plate 44).

Pit fill 31372 was cut by pit 31413; the smallest of the cuts in this feature, which did not contain burnt mound material. The pit contained a single homogenous light grey clay fill (31371) containing a moderate amount of unburnt stone. The uniformity of this fill is indicative of a single episode and the deposit contained two worked flints (sf 984 and 985) including a thumbnail scraper.

Away from the main group of features but within the burnt mound area was a single outlying posthole (31521). The feature was sub-oval in plan measuring 0.60m by 0.44m and survived to a depth of 0.20m. It had steep sides and a flat base and contained a single firm mid grey-brown gravely sandy-silt fill with frequent small burnt stones (31522).



Plate 44. Large slabs in the base of cut 31414

Charcoal

As expected in a burnt mound several layers were fairly rich in charcoal, though no samples contained much more than 3000 fragments. Samples from the troughs were dominated by oak and contained hazel and willow/poplar charcoal. One sample from the well contained only oak charcoal, and two others were dominated by oak with smaller amounts of hazel and willow/poplar charcoal. One sample from the burnt mound was dominated by oak with willow/poplar and hazel charcoal but another was dominated by willow/poplar with some hazel and oak charcoal (McKenna, volume 3, part XIX.3).

Dates

Four radiocarbon dates (2020-1880 cal BC (SUERC-81349), 2200-2020 cal BC (SUERC-81350), 2340-2140 cal BC (SUERC-81351) and 2460-2200 cal BC (SUERC-81352)) were obtained on probable fuel wood from the large well pit (31303). SUERC-81349 was from the lowest phase of this pit complex, SUERC-81350 and SUERC-81351 from the middle and SUERC-81352 from the later reuse. The dates on SUERC-81350 and SUERC-81351 were the reverse of the stratigraphic order of the contexts, which is normal in a burnt mound pit, as the material dated must have originated from the mound deposited haphazardly in the pit. However overall the dates on the three phases are consistent with the stratigraphy suggesting that each phase was discrete and had its own area of mound, which was backfilled into the pits without much mixing with earlier deposits. It may be that the three pits associated with the mound were each related to one of these phases. The fact that one of these pits seemed more likely to have been an oven than a trough spoils this neat pattern, however the third phase in feature 31303 (pit 31414) was too shallow to be a recutting of the feature as a well and this was probably a trough filled from groundwater. The presence of flat stones forming a base and possible indications of an organic lining, preventing stone from filling the earlier voids, supports the interpretation of this feature as a trough. It can therefore be argued that there were three separate general phases of activity with three troughs.

The modelling the dates estimates that the burnt mound activity began in *2955–2215 cal BC (95% probability)*, and probably in *2525–2245 cal BC (68% probability)*. The activity ended in *2025–1290 cal BC (95% probability)*, and probably in *2005–1765 cal BC (68% probability)*. The burnt mound activity appears to have occurred over a span of *245–1480 years (95% probability)*, and probably *330–770 years (68% probability)*.

Interpretation

This seems to have been a classic burnt mound with three pits or troughs. The large stones and evidence of a fire in pit 31289 may indicate that it functioned slightly differently to the other two pits. It was noted that during the excavation it never held water, whereas the other two often did. It is likely that pits 31283 and 31523 were more typical burnt mound pits designed to hold water to be heated by hot stones, while pit 31289 seems to have been a dry cooking pit, more like an earth oven; the large stones perhaps helping to retain the heat during cooking. None of these pits seemed to have had linings. The unusual feature was the pit complex 31303. This group of features clearly represents a complex series of activities and the pits are unlikely to have all had the same function. The earlier, larger, deeper pits might have been dug to reach the water table to act as a well. The current water table is low, but the pits were dug through the more compact gravel and into a layer of sand, through which water might have flowed if the water table was higher in antiquity. The erosion of the sides is certainly consistent with water being held in the pit. The recutting suggests that the pit became infilled with burnt mound material and had to be cleaned out at intervals; however, the later recuts were much shallower and had a different function. The pits would have had to be lined if they were to hold water, as the loose stony deposits below were well-draining. It is possible that they had temporary organic linings, which would have left no archaeological evidence, and they may have acted as normal burnt mound troughs.

The dates suggest that the site was reused over hundreds of years, starting in the Late Neolithic period and continuing through the Beaker period. This later use is of interest due to temporary Beaker occupation of the hollow about 30m away.

Small Burnt Mound (PRN 31583)

See figures 20 and 36

Description

Burnt mound (31002) was located towards the south-western end of the hollow in Area E that contained the Early Neolithic activity described above (SH 25301 80755). It was a much smaller feature than mound PRN 31582, measuring 4.4m by 2.5m and surviving to a maximum depth of only 0.1m (plate 45). The material was composed



Plate 45. Burnt mound spread 31002

of approximately 75% burnt stone and charcoal within a dark-black brown silty clay. Although it is described as a single layer it is likely to have been formed over a prolonged period and be the result of a series of dumping episodes following the repeated clearing out of the associated pit (31008).

Pit 31008 partially underlay burnt mound (31002) and is thought to have produced the material found in the mound (plate 46). The trough was sub-circular in plan with a diameter of approximately 0.93m. The profile of the pit was U-shaped with steep sides and a flat base. The feature survived to a maximum depth of 0.37m and contained four fills. The lowest fill of feature (31008) was a hard, yellowish-orange silty clay (31091). This has been interpreted as a clay lining, but was probably just an alteration of the natural silts along the sides and base of the pit.

Plate 46. Pit 31008 and half sectioned burnt mound

Overlying the clay lining was a soft black charcoal and silt layer (31017). This material is not thought to have been burnt *in situ*, as there was no evidence for burning within the feature. Fill 31017 was overlain by a burnt stone and charcoal deposit (31018) similar to the material comprising the burnt mound. The upper fill of the pit (31009) was a further burnt stone and charcoal deposit.

Various features were located around the burnt mound and may have been related to it. A possible stakehole was located to the south-east of pit (31008). This feature (31124) was sub-oval in plan measuring a maximum of 0.20m by 0.09m and survived to a depth of 0.10m. It contained a single orange-grey clay silt fill with charcoal flecks and a few sub rounded stones (31125). The interface with the natural is diffuse and it is unclear how convincing this feature is.

Features 31008 and 31124 were cut into layer 31020, described as a compacted, light white-yellow silty clay with occasional cobbles. It was interpreted as a relict soil layer leached by heat-induced changes caused by the burnt



Plate 46. Pit 31008 and half sectioned burnt mound

mound material. This implies that the material was deposited whilst still at a fairly high temperature in order to affect the underlying deposit, perhaps suggesting that the pit was used as an earth oven rather than a classic burnt mound water trough. Deposit 31020 contained a large leaf-shaped arrowhead (sf912) along with a small number of flint and stone flakes. Analysis confirmed that the arrowhead was hafted onto a shaft as it had classic hafting wear and traces of a natural glue (Debert current report volume 3, part V.2). These finds must have been deposited on the ground surface before the deposition of the mound but it is not clear if they were directly related to the use of the pit or merely residual in the soil. The lack of damage on the arrowhead suggests the former.

A north-north-east to south-south-west orientated row of five evenly spaced stakeholes (31537, 31539, 31541, 31543, 31545) was located approximately 4.5m to the west of the burnt mound. Two further stakeholes (31535 and 31553) set further apart extended the line further the north and south. There was a pair of postholes (31531 and 31533) to the north of the line and other post and stakeholes close to but just off the southern end of the line. It is not certain how many of these features were contemporary but the main row of stakeholes formed such a clear alignment that they must have formed a slight structure, possibly a fence or windbreak.

Approximately 2.5m to the north of the burnt mound (31002) was an oval feature with a deeper centre (31116), which was probably a posthole with a deeper post impression in its base. A patch of possible *in situ* burning (312027), measuring c.1m x 0.40m, was located immediately to the west. There were also two stones set on edge in the natural silt (31115), possibly the remains of a kerb or other low stone structure. The only find to come from this area was a small sherd (sf871) of Early Neolithic vesicular Ware from the fill around one of the stones of 31115. However a small sherd of possible Beaker pottery (sf976) came from a stakehole (31412) further north, with a crumb of similar pot nearby (sf944). These pot sherds could indicate that some of these features were part of the general activity in the hollow further north which contained traces of both Early Neolithic and Beaker activity, though it seems possible that some were associated with the burnt mound.

Four soil samples produced identifiable charcoal remains. Of two samples from the trough, one contained only oak and the other was dominated by hazel with a smaller amount of oak charcoal. Two samples from the burnt mound contained equal amounts of hazel and oak charcoal (McKenna, volume 3, part XIX.3).

Two dates were obtained from the mound (2870-2580 cal BC (SUERC-81353) and 2890-2670 cal BC (SUERC-83279)), placing it in the Late Neolithic period. The similarity of the two dates makes this date fairly reliable and suggests a short period of use, which would be expected from the small size of the mound. Leaf-shaped arrowheads generally belong to the earlier Neolithic and as there were a few fragments of Early Neolithic pottery also near the burnt mound it might be suggested that the Early Neolithic activity in the hollow to the north-east extended this far and the arrowhead resulted from that. However, its lack of damage suggests that it was not trampled and it seems to have been protected by the mound. It might therefore be a late example deposited during the use of the burnt mound.

Interpretation

This small mound has some similarities to earth ovens rather than a true burnt mound. The pit seems very small to have acted as a water trough and the layer of charcoal in its base may indicate that a fire had been lit within it. Earth ovens are often clay-lined, as this pit seems to have been. The possible heat-alteration of the soil beneath the mound may indicate that the stones were still quite hot when removed from the pit. If hot stones are placed in water they will cool quickly but used dry in an earth oven they might still be hot when the cooking was finished and they were removed. The small size of the mound would also be more consistent with an earth oven used only once or twice, than a trough used many times.

The row of stakeholes near this small burnt mound could have been a wind break and other postholes nearby may have indicated a small structure or perhaps posts from which to hanging items. However, it cannot be demonstrated which of these features are associated with the burnt mound. Certainly this mound seems to be within an area of temporary occupation some of which is likely to be contemporary with the mound.



Plate 47. Pit 31436 half sectioned

Other possible burnt mound troughs and earth ovens

Across the site there were a small number of other features with similarities to burnt mounds, mainly pits containing burnt mound-type material (see figure 7 for locations). None had associated mounds and some might be earth ovens but they are discussed here because they used hot stones.

In the western side of Area E approximately 48m to the north-north-west of the small burnt mound was an isolated pit (31436) (PRN 31584, SH 25283 80801) (figure 37.1 and 2, plate 47). This pit was oval in plan and measured 1.2m by 0.9m and survived to a depth of 0.25m. It contained two fills, a lower fill (31435) composed almost entirely of charcoal and charcoal dust within a fine silt, and an upper fill (31434) which was of a similar material and contained a high proportion of burnt and fire-cracked stone. The charcoal in this fill was dominated by oak, but also contained some willow/poplar. This fill was very similar to the material excavated from within the large burnt mound and its underlying features. No obvious signs of *in situ* burning were observed in the pit, but the lower fill is suggestive of a fire within the pit. It is unclear if this feature was a separate earth oven or possibly associated with another burnt mound that lies outside of the excavation area.

Two further pits (31306 and 31513) were excavated 53m to the north of pit 31436 (PRN 31585, SH 25290 80853) (figures 37.3 to 37.5, plate 48). These pits were also oval in plan with steep sides and concave bases. Pit 31513 was the larger of the two pits and measured 1.0m by 0.97m and 0.25m in depth. It contained two fills, the lower one was very rich in charcoal, and contained a burnt flint flake (sf5516) and a tiny fragment of pottery (sf5435). The second pit (31306) measured 0.95m by 0.7m and survived to a depth of 0.25m. The pit contained two charcoal-rich layers with burnt stones. A rim sherd (sf952), with other similar pot fragments (sf951) and a flint core fragment (sf5506) were recovered from the fill of this pit. The pottery is probably of Middle Bronze Age date and indicates this date for the pit. The fragment of pot from pit 31513 could be of the same date and it is assumed that these two pits were roughly contemporary. Pit 31306 also contained two utilised pebbles; a possible heavy hammerstone of dolerite (sf961) and a possible polisher (sf5503), a rounded cobble of quartzite, smoothed from use. The charcoal from pit 31306 was mostly oak with hazel charcoal, and that from pit 31513 was also mainly oak charcoal with some hazel and willow/poplar charcoal (McKenna, volume 3, part XIX.3).

Towards the northern side of Area A (PRN 31586, SH 25157 81099) was a sub-circular medium sized pit (07023), which contained concentrated charcoal and fire cracked stones (figure 37.6 and 7, plate 49). This resembled a small burnt mound pit but there was no trace of a mound or other features in the area. The charcoal from pit 07023 was mainly hazel charcoal with smaller amounts of willow/poplar and oak (McKenna, volume 3, part XIX.3).



Plate 48. Pit 31306 half sectioned



Plate 49. Pit 07023 half sectioned



Plate 50. Pits 03078 and 03082 half sectioned

In Area L5, about 54m south-east of the standing stone were two sub-rectangular pits (03078 and 03082), the latter cutting through the fill of the former (PRN 31587, SH 25448 80939) (figure 38, plate 50). Pit 03078 contained a layer of charcoal and was sealed by a dump of redeposited clay. Pit 03082 also contained a charcoal-rich layer but also contained burnt stones, which resembled the deposits found in burnt mound troughs. However no trace of a burnt mound was seen in the area or noticed mixed in the ploughsoil during stripping. Apart from a possible hammerstone (sf5704) no finds were recovered from the two pits. Samples from both pits 03078 and 03082 were dominated by oak with small amount of willow/poplar and hazel (McKenna, volume 3, part XIX.3).

About 6m to the north-west of these pits was the terminal of a small stone-filled ditch (03086), 0.95m wide and 0.32m deep. This had a substantial posthole (03094) in its end. The posthole was about 0.8m in diameter and 0.6m deep and appeared to cut the fill of the ditch. The ditch ran into the western baulk and to the east no sign of any continuation was seen within Areas L5 or L4, making it impossible to determine whether the ditch was curving or straight. No finds were recovered from these features and it is not known if they were in any way related to the pits. The substantial size of the posthole suggests that these formed part of a structure extending under the unexcavated area.

A sub-circular pit (40076), 0.92m in diameter and 0.3m deep, in Area M has been described above (figure 22). This also appears to be an earth oven and in contrast to those for which a Bronze Age date might be suggested it may have been of Early Neolithic date, although the date of the crumbs of pottery it contained was not entirely certain.



Plate 51. View of ceremonial complex under excavation with large hollow/pond on the left; D-shaped enclosure fully excavated, ring ditch excavation just started and the first cist just revealed near the small spoil heap in the lower right corner

Bronze Age

Ceremonial complex in Areas M2 and M4

See figure 22 for general location

About 185m north-west of the Tŷ Mawr standing stone (An012, PRN 2501) were a group of features included within Areas M2 and M4 (plate 51). They were located on the generally level summit of a slight gravel rise, the north-western side of which was most sharply defined. The southern side had been disturbed by a large hollow (context 19053, discussed below). About 40m to the north-west was a steep scarp where the ground rose to a higher plateau within Area N. The area was therefore locally prominent but not the highest point in the landscape. It was noticeable that the surface natural geology here was all well-drained gravel, without the boulder clay or surface bedrock found elsewhere on the site.

The features in this area formed a significant group of Bronze Age monuments; comprising a multi-cist cemetery, a deep ditched D-shaped enclosure, and a ring-ditch for a round barrow. Between these features were various small pits and postholes, some of which produced Early Neolithic pottery. These are discussed above in the Neolithic section, though some of these features may have been contemporary with the monuments.

Cist Cemetery (PRN 31589)

See figure 39 for plan and figure 40 for selected sections

On the north-western edge of the plateau (SH 25210 81080) was a group of eight stone-lined short cist graves (plate 52). All of the cists were set within sub-circular pits dug into the natural gravels. They were all contained within a circular area c. 10m in diameter and were arranged in three rows aligned north-north-east to south-south-west, with two cists in the central row and three on each of the flanks. An approximate line of symmetry ran north-north-east to south-south-west through cist 8 in the south and cist 2 in the central area with the location of the other cists more or less reflecting each other about this axis.

The cists were generally constructed from four flat slabs of locally available schist supported by each other to form an unbonded stone chamber (plate 53). Seven of the eight structures were covered with substantial stone slabs that formed a more or less *in situ* capstone (plates 54 and 55). Fragments of schist slabs found around cist 1, are thought to be the remains of a broken example. Of those with *in situ* capstones, the majority showed that great



Plate 52. The larger cists fully exposed, viewed from above



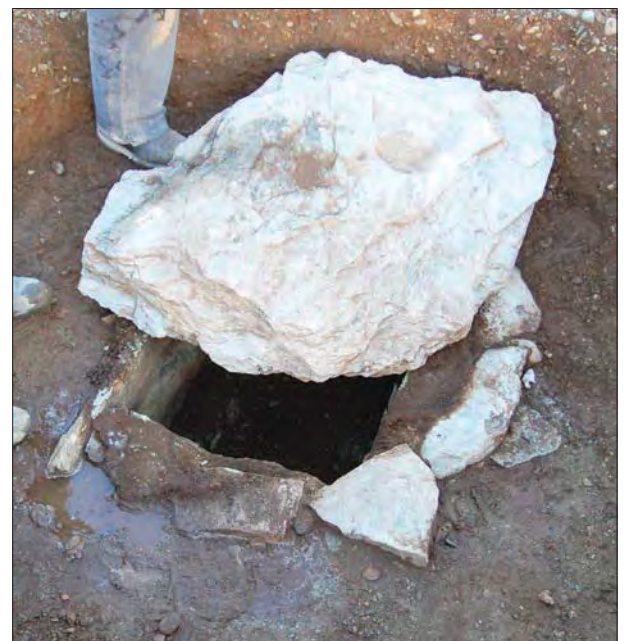
Plate 53. Cist 5 in cut 40161, showing construction

Plate 54. Capstone of cist 6 in cut 40164, showing depth of capstone below surface of the natural gravels



Plate 55. Capstone of cist 7 in cut 40169

Plate 56. Removing the capstone of cist 5 in cut 40161, showing the void in the cist



care was taken to level the capstones and seal the cist compartments using smaller stone slabs, resulting in voids in all the larger cists, as they had not been infilled by soil or even water borne silts (plate 56). None of the cists contained basal slabs and natural deposits formed the base of each of the chambers.

Three of the cists, 1, 2 and 4, were noticeably smaller than the rest and sat in much shallower cuts than the deeper set, larger examples. Two of them, cists 1 and 4, were both located at the northern edge of the cemetery, each of their pits clipping larger examples lying on their southern edges (plate 57). The third, cist 2, was centrally located.

Two cists contained grave goods, in each case this consisted of a single pottery vessel. A small Food Vessel sf2038 was recovered from cist 3 (plate 58) and a broken, but largely complete Beaker (sf4102) was found in the base of cist 7 (plate 59). Both of the pots appear to have originally been placed upright in the base of the cist.

A detailed description of each of the cists follows:

Cist 1

Cist 1 was the most northerly of the group. The cist chamber comprised four flat slabs of local grey schist (40111) laid to form a sub-rectangular box orientated E-W. The two longer side stones each consisted of two sub-rectangular slabs set on their long sides and leaning slightly to the S. Each was around 0.65m long, 0.45m wide and between 0.07 and 0.12m thick. The shorter sides were formed by two similar flattish stones, both of which were between 0.28-0.30m long, 0.45m wide and up to 0.05m thick. The shorter end stones were placed between the longer side slabs. At the eastern end, the short side stone had been set perpendicular to the two longer stones, whilst the western end slab had been placed at more of an angle. The four side stones rested directly upon the natural gravels and together defined a chamber with an internal measurement of approximately 0.60m by 0.25m and a depth of 0.47m (figure 40.3).

The cist had been built at the base of an E-W aligned sub-oval shaped cut (40109), dug into the natural sand and gravel (40207) and clipping the northern side of cist grave 3 (figure 40.5). This cut, with steep sides and a rounded base, measured 1.1m long, 0.9m wide and 0.45m deep. It appears that after placing the side slabs, the space between the cist walls and the sides of the cut was backfilled (40130) with the sand and gravel that had been dug out of the cut.

The side slabs of the cist protruded just above the level of the machined ground surface and unfortunately it appears that north side long stone was damaged by the machine bucket during the stripping process. No *in situ* covering slab was identified however a number of fragments of flat schist (40134), the largest of which measured 0.4 by 0.3m, are thought to represent the remains of a broken capstone. Some of the fragments were found scattered around the cist structure, however most were in the interior of the cist, lying on top of the sequence of deposits that filled the chamber.

The interior of the cist box contained a primary fill (40122) which consisted of a loose brownish orange gravely sandy silt with a high proportion of angular fragments of schist up to 20cm long. It is possible that these fragments were derived from the cist sides and capstone as the structure deteriorated over time. Above this lay (40113), a loose brown silty deposit which contained fragments of modern glass, with a further ploughsoil-derived deposit (40112) overlying it.

Cist 2

Cist 2 lay towards the centre of the cemetery and was, like cists 1 and 4, at the smaller end of the size range. The cist was built at the base of a steep-sided, shallow, sub-circular pit (40127). This cut was 1.18m long, 0.75m wide and 0.48m deep and aligned north-east-south-west. The pit was slightly wider at the north-east end, and the cist structure (40116) appeared to have been built more tightly against the cut to the south-west.

The cist structure (40116) was aligned north-east-south-west like the cut. The stone on the north-west side was the more substantial of the two long side slabs and measured 0.65m long, 0.44m wide and 0.15m thick. The other on the south-east side was 0.57m long, 0.37m wide and a lot thinner at 0.04m. The north-east shorter side slab was even thinner at 0.02m, was 0.54m long and 0.31m wide. The south-west short side stone was 0.33m long, 0.44m wide and 0.11m thick. Both of the longer side slabs leant slightly towards the south-east whilst the shorter ends were inclined gently towards the north-east. Together they defined a sub-rectangular area, which measured 0.58m long by 0.29m wide internally at the base, and was approximately 0.41m deep.



Plate 57. Cist 1 (cut 40109) next to cist 3 (cut 40119) with its capstone still in place



Plate 58. Food vessel as found in cist 3

Plate 59. Beaker as found in cist 7



A deposit of sub-angular stones and cobbles up to 0.23m long (40125) in a mid-brownish grey silty sand matrix (40128), had been packed around the cist. The stones, which appear to have been derived from a variety of sources including four or five quartz stones, were placed in three courses around the edge of the cist box, filling the cut and providing support to the cist structure.

There seem to have been two capstones. The main capstone (40114) covered most of the cist and was 0.43m long, 0.11m wide and 0.11m at its thickest point. Next to this was another flat stone (40126), measuring 0.48m long, 0.26m wide and 0.04m thick. This covered the edge of the north-east end of the cist box and part of the packing deposit. The capstones did not completely seal the roof of the cist, and a loose, mid brown silty sand deposit (40115) within the cist chamber may derive from material that seeped in through the gaps between the slabs. The relatively shallow depth of the cist cut meant that there was no backfill deposit over the capstones, which instead were overlain by ploughsoil (40206).

Cist 3

Immediately adjacent to cist 1 on its southern side was a much larger cist grave, cist 3 (figure 40.5). Its sub-circular construction cut, (40119), formed a pit 1.50m in diameter and 0.90m deep. It had steep sides and was truncated on the northern side by the cut for Cist 1 (40109).

The cist structure (40132) was formed from four slabs of schist set on their sides to form a sub-rectangular chamber orientated west-south-west to east-north-east. The longer northern and southern sides were made up of two slabs of stone 0.85 and 0.90 m long, 0.48m wide and up to 0.10m thick. The two shorter end stones were 0.50 and 0.55 m long, the west one was 0.45m wide and around 0.10m thick, the east was slightly wider at 0.47m but thinner at 0.05m. The eastern side slab was laid against the two ends of the longer stones, whilst that at the west was set between them its sides abutting their inside edges. Three of the four side stones appeared to lean outwards slightly. The outward inclination on the fourth, the western side slab, was particularly pronounced. In order to compensate for this, a horizontal slab appears to have been set over the western side stone. It measured 0.73m long and up to 0.25m wide, and brought the height of that end of the chamber up to the level of the of the other sides of the cist box. The resulting chamber was approximately 0.45m deep, 0.68m long at its base and 0.48m wide at its west end, though it tapered slightly towards the east where it's width was recorded at 0.40m.

The cist appears to have been constructed quite tightly in the base of the cut, and after the side slabs were placed gaps in the corners were sealed from the outside with smaller schist stones and cobbles. A deposit of mixed grey and buff coarse sand and gravel material (40136) was firmly packed into the narrow gap between the stones and the edge of the cut, almost up to the level of the top of the side slabs.

Before the cist was closed, a small vase Food Vessel (sf2038) was placed inside. It was found just inside the south-western corner of the cist, near to the south side slab and was lying tilted towards its side with the mouth of the vessel facing east. A small patch of brown 'earthy' silt (40133) was also identified in this south-west corner. This deposit partially underlay the ceramic vessel and represented the deposition, deliberate or accidental, of a small quantity of soil in the cist chamber before the pot was placed. There was no other fill inside the cist as the tightly fitting capstone had prevented the ingress of silts or other backfill, maintaining a void inside the cist.

A large, almost square, schist capstone (40121), 1.1m long and 1.0 m wide, was placed on the side slabs, protruding over them and sealing the cist box. In places the capstone also rested on a layer of large angular schist slabs (40135) which appear to have been laid or wedged in place to level and stabilise it. A ring of irregular flat stone slabs (40124) had been placed on top of the capstone along its perimeter, thus 'sealing' the structure. They varied in size, most were around 0.3m long and between 0.10-0.20m wide, though the largest examples were approximately 0.50m long and 0.24m wide. Some quartz was included, predominately those on the western side, although as this is naturally present in the schist rocks its significance is not clear.

Cist 3 was sealed by a backfill (40120), which entirely covered the closing stones (40124) and capstone (40121). It was a 0.30m deep layer of greyish yellow sandy silt and gravel, very similar to the natural sand and gravel in this area. It would appear this backfill deposit, like the material that was used to pack the void between the cist and its cut, was derived from the upcast spoil of the initial excavation of the cist pit. This made it very difficult to distinguish from the natural and to locate the presence of the cist.

A hollow in the surface of deposit (40120) contained a quantity of flat schist stones (40194) up to 0.3m long lying in a brown silty matrix. Although this might be part of the backfilling activity but it is possible that they are the

remains of another small cist, which was shallowly set and largely destroyed.

Cist 4

Cist 4 (40154) was in a much worse state of preservation than the other examples. It was located in an oval shaped cut (40166), at least 0.6m deep, 1.35m long and 1.02m wide. This was one of the first features that were visible in this area after initial stripping. Only one of the side slabs, the E-W aligned stone on the longer south side, survived *in situ*. It was an angular slab set vertically on its side and measured 0.85m long, 0.55m wide and was around 0.07m thick. Two shorter slabs, aligned approximately N-S, lay flat to the east and west of this. The stone to the west was 0.48m long, 0.20m wide and around 0.07m thick, the one to the east was 0.40m long, 0.30m wide and a similar thickness. It seems likely that these were the disturbed shorter side stones of the cist, although their narrow widths mean that they would not have projected as high as the south side slab. A sub-rectangular slab, approximately 0.93m long and 0.68m wide, formed the capstone, and rested on the three proposed side stones.

It was suggested during excavation that the cist had been disturbed and the capstone replaced, but this was partially covered by clean gravel (40155) typical of the undisturbed sealing deposits of the other cists, and it is probable that the cist was largely undisturbed, just crushed perhaps by the weight of agricultural machinery. The internal dimensions of the cist box appear originally to have been around 0.85m long, 0.6m deep and possibly about 0.4m wide. The lack of disturbance is proved by the fact that there was a void under the capstone. Some loose gravely sand (40158) and (40157) had apparently seeped in from the north, but much of the cist was empty.

Cist 5

Cist 5 was the southernmost cist of the group. It had been built in the base of a large sub-circular pit (40159). The pit was 2.21m in diameter with steep flat, almost vertical sides 0.80m deep, making this the shallowest of the group of three cists in the southern part of the cemetery (figures 40.1 and 40.4).

The stone cist (40161), much smaller than the construction cut itself, was orientated north-north-east to south-south-west. The schist side slab on the western side measured 1.2m long, 0.48m wide and 0.12m thick. The slab on the eastern side was 0.94m long, 0.45m wide and 0.10m thick. The slab on the northern side was noticeably shorter than its opposing stone to the south and was 0.50m long, 0.42m wide and a maximum thickness of 0.07m. The southern side stone was 0.60m long, 0.43m wide and 0.08m thick. The longer slabs appeared to rest upon the shorter sides slabs, whose ends abutted the inside face of the long slabs. The cist was extremely carefully built, and the almost perfectly vertically set stones created a 0.45m deep chamber, which was 0.7m long and 0.55m wide at the base internally.

After the cist box was built, a number of large, flat stones were packed around the base of the cist slabs, filling the cut to a depth of approximately 0.22m. A basal fill (40176) was identified within the cist compartment. It consisted of a layer of very loose and friable, dark brown silt with a maximum depth of 0.035m and a diffuse interface to the natural sand and gravel below. Otherwise the cist was empty.

The cist was sealed with a capstone (40162), a large angular, sub-rectangular slab of blue-grey schist 1.16m long, 0.83m wide and 0.15m thick. It appears that great care had been taken to ensure the capstone was set correctly on the cist compartment. A number of flat stones overlay the outside edges of the vertical side slabs, apparently deliberately selected and placed to ensure that the capstone sat horizontally on top of the cist.

After the capstone had been put in position, the construction pit had had been backfilled with (40160), a stony deposit with a mid-brownish orange silty sand and gravel matrix. This deposit filled the space above the packing stones at the base of the cut, extended up the sides of the cist compartment and over the top of the capstone. Though deposit (40160) is recorded as a single context, it seems likely that the backfilling of the cist in this way happened in at least two stages, though they must presumably have occurred in quick succession. The first stage must have involved the back filling of the pit around the sides of the cist up to the level at which the flat levelling stones were placed. The second episode would appear to have taken place after the capstone was lowered into position over the side slabs and the levelling stones. This final stage resulted in the top of the capstone being buried about 0.22m below the surface of the natural sands and gravels.

In contrast to the other cists, a thin lens of organic-rich, silty material was recorded at the base of this backfill deposit (40160) where it overlay the capstone. The lens must have accumulated rapidly as there is no evidence to suggest that any other part of the cist structure or associated deposits were exposed for any period of time, and may perhaps represent the deliberate deposition of turfs on top of the cist before the final backfilling. Alternatively rain

might have washed the material in before the grave could be backfilled.

Cist 6

The construction cut (40166) for cist 4 cut into the northern edge of a larger cist grave (cist 6). The cist in this grave was constructed on the flat base of a steep sided, sub-circular pit (40164), 2.4m long, 2.2m wide, and 1.32m deep. A thin deposit of fine, light brown silt (40184) ran under the cist side slabs, and was probably deposited as the cist was being constructed. The cist structure (40174) was orientated south-east-north-west. The slab on the south-east side was the slightly larger of the two long side slabs at 1.35m long, 0.70m wide and 0.18m thick. The opposing stone on the north-west side was 1.4m long, 0.60m wide and 0.15m thick. The shorter end slabs were of a similar width, the one at the north-east end was 0.65m long, 0.70m wide and maximum of 0.15m thick, the one at the south-west 0.70m long, 0.65m wide and the thinnest of the group with a maximum thickness of 0.10m. The two shorter end stones appear to have been placed abutting the longest south-east side slab and resting against the ends of the north-west long slab. All four stones appeared to lean inwards slightly, creating a chamber approximately 0.64m deep and which measured 1.2m long and approximately 0.70m wide internally at the base. As was noted with other examples in the group, the space outside of the side slabs appears to have backfilled almost up to the top of the stones with a firm brownish grey mixture of sand, fine grit and silt (40190), similar in appearance to the surrounding natural but slightly looser and more mixed.

A large, slightly tapered, sub-rectangular stone with rounded corners formed the capstone (40165) and was 1.80m long, 1.10 m wide and 0.15m thick. This slab completely covered the cist chamber, and apart from on the north-west side, extended beyond the side slabs. In contrast to the slabs from the other cists, which were predominately constructed of pieces of blue/grey schist, the capstone (40165) had more of a buff colour. The upper face of the capstone appeared weathered and smoothed, and it is likely that this was a quarried slab from the surface of an outcrop. A number of cobbles and flat slabs of stone (40170) were arranged on top of the backfill/packing deposit (40190) and around the capstone. They seemed to represent a supporting, levelling and sealing deposit.

The cist itself was empty except for a thin silty layer (40175), particularly evident in the corners of the chamber, possibly resulting from silt being washed into the sealed chamber. On top of the capstone and sealing stones, a layer of firm, light to mid-buff brown sandy gravel (40163), around 0.40m deep, had been deposited, filling the top of the construction cut and sealing the structure.

Cist 7

Cist 7 was the western most cist of the group, and along with cists 8 and 5, formed a north-west to south-east linear arrangement of graves that marked the south extent of the cemetery. Cist 7 was another of the larger cists on the site. As with the others, a large north-east to south-west orientated sub-rectangular pit (40169) had been dug into the natural sands and gravels to house the structure. The pit cut was 2.65m long, 2.26m wide and 1.46m deep, steep sided, with a flat, even base (figure 40.4). The pit was considerably wider than the cist itself, the size perhaps necessitated by the requirements of manoeuvring the large cap stone (40168) into position.

The cist structure (40187) was aligned north-north-east to south-south-west and consisted of four slabs of schist vertically set on their sides to form a box with the shorter end slabs to the north-east and south-west abutting the inside faces of the ends of the longer stones, the longer stones appearing to rest against the shorter. The north-western side slab was 1.35m long, 0.79m wide and up to 0.12m thick. The south-eastern one on the other long side was 1.35m long, 0.8m wide and had a maximum thickness of 0.16m. The north-east shorter side stone was 0.62m long, 0.70m wide and 0.06m thick, whilst the one that formed the south-west side of the cist was 0.73m long, 0.66m wide and around 0.08m at its thickest point. The four vertically set stones formed a 0.8m deep compartment, 1.0m long and 0.65m wide at the base. The external faces of one of the end stones and the internal surface of one of the longer side slabs appeared to be weathered and discoloured. In addition, the stones used in the construction of cist 7 appear to be less robust, with more evidence of cracking and flaking noted than at cist 6. The existence of 'scallop' on the top edges of the slabs was noted, suggesting that they had been roughly shaped before they were used.

Between the cist box and the cut, a 0.60m deep layer of large bluish grey schist stones (40188), up to 0.65m long and 0.60m wide, had been packed into the base of cut around the structure to stabilize and support the cist. The interior of the cist was empty except for a 0.05m deep patch of very loose, mid to dark brown silty sand, with a high organic component (40177). An almost complete but broken pottery vessel, a Long Necked Beaker with large scale incised chevrons (sf4102), was found on and within this deposit in the eastern corner of the cist.

The cist box had been closed with a large, sub-rectangular capstone (40168). It was made from a piece of greenish grey schist, 1.3m long, 1.22m wide and 0.20m thick and appeared to have been broken *in situ* on its north corner. Though it overlapped all of the side stones, it did not quite cover the cist box, small gaps were apparent at the north and south corners. Three large, horizontally set greenish grey schist stones (40189), up to 1.05m long and 0.70m wide, sat on top of the capstone, partially covering it. A layer of loose, mid brownish orange silty sandy gravel with very occasional flecks of charcoal (40167) had been deposited over the closed cist structure. This deposit filled the construction cut to level with the surface of the natural gravel, approximately 0.5m above the top of the capstone. Again, this backfill material was probably primarily derived from the natural sands and gravels originally dug out for the cist cut but at least some anthropogenic material had been incorporated into it.

Cist 8

The last of the 3 cists that formed the north-west-south-east aligned linear group in the southern part of the cemetery was cist 8. The structure was equidistant from Cists 7 to the north-west and 5 to the south-east. It was set into the largest construction pit (40180), a sub-circular cut 2.75m long, 2.50m wide and 1.50m deep. The sides of the pit were cut at a steep angle into the sand and gravels and the base was flat (figure 40.2 and 40.4).

In contrast to the other seven cists which were all orientated between east to west and north-north-east to south-south-west, the box of cist 8 (40186) was aligned north-west to south-east, its long axis rotated through 90 degrees relative to the others. This was also the largest cist in the group. The longer side stone on the south-western side measured 1.25m long, 0.85m wide and 0.10m thick, the other on the north-east 1.35m long, 0.90m wide and 0.17m thick. The shorter side slab on the north-western side was 0.66m long, 0.80 m wide and 0.12m thick, whilst that on the south-east was 0.76m long, 0.86m wide and 0.15m thick. Both of the of the longer side slabs appeared to have a weathered outer face, and appeared to be of a lower quality than those used for other cists in the group, specifically cist 6. The four side slabs were set more or less vertically on their edges, propped up against each other to form the cist compartment. The slab that formed the shorter south-eastern side leant inwards slightly. Together, the four stones defined a box with a maximum depth of approximately 0.90m and internal base measurement of 1.30m long and a width of 0.55-0.65m.

After the cist box was constructed, the area outside of it had been packed with a large quantity of angular schist stones and cobbles (40197), almost up to the level of the top of the cist side-stones. Though packed more densely against the cist walls, the packing stones completely filled the space between the cut and the outside of the cist. The size of the stones varied and included some large blocks up to 0.70 m long and 0.49m wide with a concentration of smaller stones in the north-east. A layer of firm greyish blue, silty sand and fine gravel (40192) had been deposited on top of the packing stones (40197) and some of this material had seeped down to fill the voids between them. Two large flat stones, also recorded as part of (40192), had been placed on top of the south-west long side slab, with the apparent intention of creating a level support for the capstone (40191). The capstone was made from a large, sub-rectangular, slab of schist with rounded corners, 1.50m long and 0.95m wide.



Plate 60. Flat stones (40202) around edge of capstone of cist 8

A single fill (40196) was identified within the cist box. It is recorded as a thin deposit of loose, mixed light brown and yellow gravely silt with a clear interface to the sandy gravel natural. The layer was thicker in the corners of the cist box, and probably derived from material that seeped into the cist between the gaps in the wall and roof slabs. Otherwise the cist was empty.

After the capstone had been laid, a ring of flat pieces of schist (40202), up to 0.60 long, were placed around its edge, resting on the capstone and the surface of the lower backfill deposit (40192) (plate 60). A similar arrangement of stones (40124) had been noted at Cist 3. A 0.25m deep mound of medium sized stones in a loose, dark brown, sandy gravely silt (40185) was identified overlaying the capstone, within the area defined by the larger stones from (40202). Some fragments of burnt bone (sf5561) were recovered from a wet sieved sample of (40185). A fairly loose, 0.42m deep, layer of greyish yellow silty sand (40181) lay above this sequence of stone deposits filling the upper level of the construction cut, and sealing the cist structure below. Deposit 40181 seems to have been dumped around the outside of the cut leaving a hollow in the middle filled a more gravely deposit (40183). The interface between these two deposits was initially interpreted as a cut but it seems more likely that it was the result of how the material was deposited over the cist grave.

Other features in cist barrow

Some variations in the natural sands and gravels and other natural hollows were investigated in the area of the cists. A gravely deposit (40172) initially appeared similar to the upper cist fills but proved to be variations in the natural deposits. Two adjoining deposits (40198) and (40199) consisted of irregularly shaped patches of brown silt between 0.10 and 0.15m deep. These had voids and hollows created by animal burrowing or tree roots running through, which contained charcoal, and these deposits would seem to be from root disturbance with the tree or shrub then having been burnt. However sherds of Bronze Age pottery (sf4327, sf5848 and sf6339) were recovered from the root holes (40200) (volume 3, Fig I.1.1.12), which must have come from activity in the area.

Two smaller, oval shaped cuts (40101) and (40105) were identified in the eastern part of the cemetery, lying between cist 6 to the north and 5 to the south. Feature (40101), was 0.45m wide, 0.35m long and 0.11m deep, and feature (40105) was larger at 0.83m long, 0.57m wide and 0.13m deep. Neither feature contained any finds or charcoal, and they were probably natural hollows. Another slight hollow (40107) just outside of the cist cemetery and only 0.05m deep would be similarly disregarded except for three pieces of struck stone (sf5499) from the fill. The stone appears to be from the Graig Lwyd axe source and as the flakes have two polished facets they seem to be fragments of stone axes.

Finds from the cists

Despite the fact that the majority of the cists were sealed and undisturbed, relatively few finds were recovered from them. With the exception of the Food Vessel (sf2038) from cist 3 and the Beaker (sf4102) from cist 7, no other finds were recovered during the excavation stage of the project. More ceramic material was however recovered from wet sieved samples of the deposits. The fill (40177) of cist 7 produced more fragments of decorated body and base sherds, (sf4112, sf4113 and sf5841), at least some of which appear to be from the Beaker. Two small sherds were also recovered from cist 2 (sf2088 and sf5997).

The Beaker (sf4102) is a rather wide but short Long Necked Beaker (diameter at mouth 160mm; height 168mm) decorated with two similar panels, on body and neck, of exuberantly scored chevrons (volume 3, Fig I.1.1.11). The pot is complete, barring a damaged foot but had been broken. A single worn sherd (sf2088) from close to the collared rim of another Beaker comes from Cist 2 (volume 3, Fig I.1.1.11). This is considered very unlikely to have been part of a funerary vessel in the cist.

The pot (SF 2038) from cist 3 is a bipartite Vase Food Vessel, 144mm in diameter and 135mm tall, decorated to the foot with deep horizontal grooves creating a corrugated profile in which there are three broader bands, which are variously decorated with vertical incisions created with a squared stick. The pot is complete except for some damage to the top of the rim, suggesting that the pot was not specially made for the funeral, but taken from a domestic shelf (volume 3, Fig I.1.1.11). The Beaker and the Food Vessel could be contemporary in date.

Of particular interest are the results of lipid analysis on the Beaker and Food Vessel (Dunne and Evershed vol III part I.3). There is often an assumption that Beakers contained alcoholic drinks, but this one held dairy products, as is proving quite common. However, the lipid recovery rate for the Beaker was low, suggesting that it may only have been used once before its deposition in the burial. The lipid concentration from the Food Vessel was

significantly higher and it had also contained dairy products. This vessel was regularly in use for processing/cooking dairy products before its deposition, supporting the suggestion that it was not made specifically for the burial but had seen previous domestic use.

The tree hollow (40199) on the edge of the group of cists contained sherds of Food Vessel (Sf 4327 and 6339) similar to that found in the D-shaped enclosure nearby (discussed below).

Despite the lack of bone identified during the excavation, small fragments of burnt bone were recovered from the wet sieved samples and small pieces were identified in the primary silting deposits in four of the cists. The thin deposits in the bases of cists 3, 4, 7 and 8 produced small numbers of tiny fragments of burnt bone (sf5509, sf4274, sf5844 and sf4419 respectively). In cist 8 some fragments of burnt bone (sf5561) came from (40185), the stony deposit overlying the capstone. Although most of these were too small to be identifiable, one fragment was from a sheep-sized long bone, and it is assumed that all these were from animals rather than from human cremations. These bone fragments probably the scattered remains of cooking waste, perhaps mixed into the soil. As there seems to have been little silt filtering into the well-sealed cists possibly this represents topsoil trampled into the base of the cists as they were being constructed.

Most of the graves also contained flint objects in small quantities. In three cases these came from the primary fill of their cists; a flint flake (sf4147) was recovered from cist 3 and from cist 8 (sf4499), and an edge retouched knife (sf4500) from the primary fill in cist 5 might have been intentionally included with the burial. The secondary fill from the cist of cist 4 contained a flint flake (sf4069). Odd pieces of flint and chert were also found in the backfill around cist 1 (sf4421) and cist 6 (sf4446).

The use of some quartz stones in the backfilling has been mentioned and a careful search was made for worked quartz from the graves, but most pieces proved to be natural gravel. Tiny crystal quartz fragments were recovered from cist 1 (40112) and cist 2 (sf5438).

The only other finds consisted of tiny fragments of modern glass, all of which came from the ploughsoil derived fills of cist 1 (sf4251 and sf5845).

Interpretation of the cist cemetery.

No material from the cists could be radiocarbon dated but the two complete pots indicate an Early Bronze Age date for the cists. The Beaker and Food Vessel could be contemporary as dates on these vessel types overlap considerably. The introduction of Beakers in a funerary context in Britain has recently been dated to 2460-2330 cal BC (95% probability), with these pots going out of use by 1805-1650 cal BC (95% probability). Their appearance in Wales is dated to 2380-2155 cal BC (95% probability) and they were probably used here until 1980-1860 cal BC (83% probability) (Jay, Richards and Marshall 2019, 75, 78). The bipartite vase Food Vessel can be compared to the same style dated in Ireland to about 2000-1900 cal BC (Brindley (2007, Figs 63 and 153) and a date of 2460-1950 cal BC¹⁴ from Trelystan, Powys (Britnell 1982, 167 and 191). A date of somewhere around 2000 BC for the cemetery would therefore seem probable. The large square cists for inhumation burials are typical for this period.

The roughly symmetrical layout of the cists and their fairly regular spacing suggests that they were all visible at the same time. There seems to be no clear central burial around which they were grouped and all the large cists were of roughly the same depth with no indication of some being inserted through a barrow. It is possible that the small cists were later additions, they were certainly much shallower than the large cists but two of the small cists were placed in the same relationship to two larger cists, just clipping the back fill on their northern side. This makes it possible that they were deliberately located in relation to the larger cists, which must have been visible at the time. These considerations make it likely that the cists formed either a flat cemetery or a barrow covered all of them after all the burials had been interred. In the former case a more dispersed layout might be expected, but if a barrow was planned from the start and the cists concentrated close together with this in mind the present pattern might be explained. The cists could all be covered by a barrow about 10m in diameter; quite a modest size for a Bronze Age barrow. No trace of this barrow was detected, but presumably this had been removed in the past by agricultural activity. The barrow cannot have had a ditch around it, as some trace of this would probably have survived.

If this interpretation is correct the cist group is an example of a multiple cist barrow, some examples of which can be found in Scotland. Parc Cybi is roughly comparable to a cist cemetery at Dunure Road, Ayrshire (Duffy

14 CAR-279: 3750 +/-70 BP

2007). While this had cremation burials as well as inhumations it was similar in that there were large and small cists grouped closely together but no central cist. The cists contained Food Vessels, including bipartite vase Food Vessels (Sheridan 2007, 96, 98), suggesting a similar tradition to the Parc Cybi cist cemetery. This site is described as a flat cist cemetery but at the end of its use it was sealed under a barrow, traces of which still survived, indicating the barrow measured about 11m by 8m (Duffy 2007, 83). Survival of both burnt and unburnt bone enabled this site to be extensively dated and showed that it was used in the late 3rd or early 2nd millennium BC for a maximum of 300 years before being sealed under the barrow (Duffy 2007, 107). At Barns Farm, Dalgety, Fife (Watkins 1982) a similar cist cemetery had the slight remains of a barrow until this was removed a few months before the cists were discovered and excavated (Watkins 1982). Like Parc Cybi Barns Farm had both Food Vessels and a Beaker in the burials (Shepard 1982). A similar site at West Water Reservoir, West Linton, Scottish Borders, also with bipartite vase food vessels, had no trace of a barrow and was interpreted simply as a flat cemetery (Hunter 2000). However this site had been eroded by flooding and like other flat cemeteries could have been covered by a barrow. The Dunure Road and Barns Farm sites suggest that barrows did not necessarily have ditches and might just be low mounds of turf.

Multiple cist barrows are fairly common in Ireland, with Waddell (1970, 101) including 36 cemetery mounds with two or more cists in his survey of cists. Most cemetery mounds contain cremation burials but some, such as Moneen, County Cork, have cists with inhumation burials (Waddell 2010, 167-9).

In Wales, although Beaker burials have a single cist, Bronze Age burials are often in cemetery mounds. In these mounds there can be a primary burial and later secondary burials but usually burials are placed within or under the mound together as a group. However in Wales, unlike Scotland and Ireland few of these cemetery mounds contain inhumations, they are nearly all cremation burials, although this does not necessarily make them a late phenomenon and some appear by 2000 BC (Lynch 1991, 153; Lynch 2000, 126). Few have several large cists under a barrow or cairn, but a small number of multiple cist barrows or cairns have been found in South Wales (Savory 1972). Most of these are poorly recorded or not yet investigated, but Savory lists sites with between two and seven or eight cists (Savory 1972, 124). He describes in detail the Newton Barrow, Oystermouth, Swansea, which had a cremation pit and three cists large enough for inhumations under a barrow. No pottery survived in the cists but there was part of a Food Vessel in the base of the barrow. Beaker pottery was associated with earlier occupation, not with the barrow (Savory 1972, 126, figs 3 and 5).

Savory lists three doubtful examples in North Wales (Savory 1972, 133-4): Eglwyseg Rocks, Llangollen; Hafotty Fach, Brithdir, and Ty'n y Llwyfan, Llanfairfechan. Eglwyseg Rocks had an unknown number of cists and Hafotty Fach had two. There is the most information on Ty'n y Llwyfan, which is reported to have had two cists within 2 feet (0.6m) apart under a cairn (Luck 1888). There were pots in the cists but the descriptions make it difficult to determine what style these were. The Royal Commission Inventory (RCAHMW 1956, 126) suggests that the cists were destroyed, but the cairn certainly still exists (PRN 67334). Cemetery mounds such as Bedd Branwen, Llanbabo and Treiowerth, Bodedern (Lynch 1971), where cremation burials are placed prior to the construction of the barrow or cairn but with no obvious primary burial, show a continuation of the same basic tradition seen at Parc Cybi, but adapted for cremations rather than inhumations. Lynch argues that cemetery mounds are evidence for continued recognition of the importance of the family group, as evidenced by Neolithic burial practices, rather than the Bronze Age focus on the individual (Lynch 1971, 54-55). The Parc Cybi multiple cist barrow, with its small and full-sized cists, does have the feel of a family cemetery with few grave goods. Only the vessels, presumably with their offerings, perhaps indicate the more important members of the community, though the extent of organic offerings in the cists cannot be known.

Bronze Age cists can be associated with either inhumation or cremation burial rites, although the former is more usual in the Early Bronze Age. The scarcity of unburnt bone from prehistoric features from across the site shows that bone is likely to be leached away by the acid soils, especially in this location where the gravel would have provided a well-draining substrate. However, burnt bone is very resilient and there is no reason why cremated remains would not be preserved if they were originally present, especially in the completely undisturbed cists. The tiny fragments of burnt bone that were recovered demonstrates their survival, but there was no indication that this was human bone and very much more would have been present if even partial cremations had been deposited in the cists. It must be assumed therefore that the cists originally contained crouched inhumation burials, and that the well-drained and acidic environment has resulted in the bones, and any other organic articles included with them at the time of burial, having long since disappeared. The size of the large cists is completely consistent with crouched adult inhumations. Small cists are more usual for cremations, but the lack of cremated bone on this site strongly suggests that these too held crouched inhumations. If this was so they could only have been children,

possibly infants.

This raises questions about the two cists cutting the edge of larger cists. This might possibly have reflected a family relationship but without any bones this cannot be tested. The near central position of one of the smaller cists might also be significant, although it may just have been inserted in an obvious space.

The results of the lipid analysis from the two pots in the cists suggest that milk or other dairy products were the appropriate offerings for the dead. The Beaker may have been specifically made for interment in the burial and could have been used only for the offering but the Food Vessel seems to have been a domestic vessel reused for the burial. In this case it seems to have been consistently used to hold dairy products with no trace of other uses.

D-shaped enclosure (PRN 31591)

See figure 22 for location, figures 41 and 42 for plans and figure 43 for sections

The geophysical survey identified a small enclosure defined by a deep ditch (group number 40203) (located at SH 25212 81058) and this was investigated with an evaluation trench, but was not understood. Even when fully stripped it was assumed to be a late feature as the upper fill was so dark and contained late artefacts (plate 61). The feature was initially seen in plan as a roughly D-shaped enclosure defined by dark stony soil, but on excavation this proved to be just the final fill of the ditches. The feature was initially investigated by cutting a number of trenches through the ditch, then when its importance was realised it was fully excavated. When fully excavated deep ditches defined a 'figure of 8' shape, which enclosed two separate areas. It measured about 11.5m by 7.2m overall, with ditches up to 1m in depth and generally around 1.4-1.6 m wide. Excavation demonstrated that this feature had two distinct phases and changed its form dramatically. It started as a circular ditched feature but was extended to become roughly D-shaped (figure 42 inset), with the ditches never being all open together in the 'figure of 8' form. During the project this feature has been referred to as both the D-shaped and the 'figure of 8' shape enclosure. As it appears never to have functioned as a fully 'figure of 8' shape feature it has been decided to finally refer to the feature as the D-shaped enclosure.

Cross-cutting ditch

The earliest component of the enclosure was a ditch (22062) that ran in a 3.6m long arc from E-W, bisecting the area enclosed by the D-shaped ditch. It had an average width of 0.85m and was 0.97m deep with steep, almost vertical sides. Its primary fill (22074) consisted of a 0.25m deep layer of loose, dark reddish brown silt with occasional small rounded pebbles in it. Above this was (22061), a 0.15m deep layer of firm medium orange brown clayey silt with occasional pebble inclusions. The top 20cm of the cut were filled with a firm, light brown silt with



Plate 61. D-shaped enclosure (PRN 31591) under excavation showing the stony upper fills



Plate 62. D-shaped enclosure (PRN 31591) fully excavated, viewed from the north



Plate 63. D-shaped enclosure (PRN 31591) fully excavated, viewed from the south

frequent gravel and rounded pebble inclusions. This upper fill (22060) was much more gravely than the rest of the fills but all were very similar to the surrounding natural sands and gravels. The cut and its fills were truncated at either end by the main enclosure ditch, (22120/22111) to the west and (22124) to the east. No finds were recovered from any of the deposits associated with (22062).

It is probable that this ditch originally enclosed a circular area, but much of this ditch was entirely cut away by the later ditch. The original circular form however was retained in this end of the later enclosure.

Main Enclosure Ditch

Ditch cut and primary fill

The main enclosure was orientated north-south and was 11.6m long and 3.85m wide (plates 62 and 63). The cross cutting ditch (22062) was infilled before the larger enclosure was cut but the later ditch (40204) appeared to have dug away some of the fill of the cross ditch, giving the later enclosure a nipped-in waist. This was possibly due to erosion or collapse of the earlier ditch fill into the later ditch, although if that was the case much of the eroded deposit was cleared from the later ditch.

The main ditch (40204) was recorded initially by sondages cut across it and in each sondage the ditch cut was given a different context number. These numbers are shown on the sections (figure 43) and their locations are indicated on figure 41. Number 40204 is the group number for the ditch as a whole.

The ditch 40204 was generally around 1.4-1.6 m wide though slightly narrower along the southern side and south-eastern corner where it was between 1.0-1.2m. Its depth was generally around 0.80m, though this value ranged between 0.69 and 0.98m in various locations along its length. Its profile varied, though overall it had quite steep, even sides curving quite sharply into a flat base.

Around the northern side of the enclosure the profile of the ditch was slightly different to elsewhere, with upper part of the ditch sides sloping quite gradually then becoming steep towards the base (figures 43.7 and 43.8). It is possible that these deeper parts of the cut with their steeper profiles represent the remains of the north side of the earlier ring-ditch as their width and profiles are comparable to that noted for the cross cutting ditch (22062). There was little evidence to suggest a recut through the fills however, and the change in the angle of the sides may have been due to erosion of the upper part of the ditch sides. The significance of the difference in profile of the ditch in this area is therefore uncertain.

The primary fill of the enclosure ditch predominately consisted of a loose, orange brown, clayey silt. The deposit tended to contain some small and medium stones, sometimes concentrated in lenses. Its thickness varied, though it generally ranged between 0.36m (22083) and 0.45m (22089). The primary fill appeared to have eroded rapidly, in general from both sides of the ditch, but in some cases only from the outside, and often lying at a steep angle where it had built up against the ditch sides.

No physical traces of an *in situ* bank associated with the enclosure were noted during the excavation. However the majority of the sections cut across the enclosure ditch displayed evidence for the primary deposit having a differential in the rate of infill between the inside and outside edges of the ditch. This was visible in the sections as tip lines in the primary fill, which appear to indicate that material was eroding into the ditch from the outside at a faster rate than it was from within. The ditch sides remained sharp and steep so most of the eroded material does not seem to have come from the eroding sides. It therefore seems possible that there was an external bank made of material dug from the ditch, which rapidly slipped back into the ditch.

Few finds were recovered from the primary fill, which generally appeared to be archaeologically sterile. Occasional charcoal fragments were found in the fill the north-east corner (22089) and in the south-west corner (22083). Fill 22083 also contained some small white quartz pebbles, recorded as sf1361 and sf1364, although these could have originated from the natural local gravel.

Secondary activity

The primary fill seems to have been very rapidly deposited in the ditch preserving its loose gravel sides in a fresh and uneroded state. Activity detected in the ditch immediately after this primary filling may therefore post-date the ditch digging by only a short period.

The two slots placed in the north-western part of the ditch revealed evidence for thin layers of organic-rich, silty deposits lying directly above the primary fill (figures 43.6 and 43.7). These deposits (22099 and 22092) were only 0.03m deep and were dark brown to black, slightly sandy silt containing flecks of charcoal. It seems possible that they were part of a continuous layer in this north-western part of the enclosure and might represent the development of a soil layer and the stabilisation of the ditch. No finds were recovered from either deposit.

Other deposits in the same stratigraphic position suggest a more active use of the enclosure. In south-eastern corner of the enclosure, the gravely primary fill of the ditch (22075) seemed to have eroded only from the outside of the ditch and had built-up to a very steep angle against the ditch side (figure 43.2). Immediately overlying this but deposited from the inside of the enclosure was a dark, greyish-brown, silty clay containing approximately 5% charcoal (22077). This deposit contained a number of finds including a large rim sherd (sf1074), which, although unusual, is probably Bronze Age in date. The deposit also contained fragments of burnt and unburnt animal bone (sf4211 and sf5880), a split chert pebble (sf1269), a fragment of flint (sf1357) and two small white quartzite pebbles (sf1358 and sf1360).

There was a suggestion during the excavation that 22077 was within a pit or recut of the ditch but this interpretation seems to have been based entirely on the steep interface between 22075 and 22077. There was no other evidence of a cut and this seems unlikely. Deposit 22077 should probably be interpreted as material dumped or eroded into the ditch from the inside of the enclosure soon after the primary filling event. A similar deposit seems to have been present in the ditch further along the eastern side of the enclosure where a charcoal-rich deposit (22116) contained a chert flake (sf1330), a number of white quartzite pebbles (sf1359) and fragments of burnt bone (sf4278).

In the north-eastern part of the ditch the primary fill had also come to rest at a steep angle and the resulting hollow was infilled with a loose light grey sandy silt containing frequent pebbles, including quartzite pebbles (22088)



*Plate 64. Stone 22112 in
D-shaped enclosure ditch*

(figure 43.8). At least one of the quartzite pebbles (sf1096) appeared to have been heated and traces of burnt earth or daub were identified adhering to its surface. This pebbly deposit appeared to run around the north-eastern corner of the enclosure as a similar deposit (22091) rich in rounded quartzite pebbles, was also recorded in the north of the enclosure ditch, overlying a patch of possible buried soil (22092) (figure 43.7). As quartz is sometimes deliberately deposited in graves and monuments the excavators were noting the presence of quartz within this feature. The concentration of quartz in this area is therefore likely to be genuine and seems not to be related to variations in its concentration in the natural gravels, raising the possibility that it was deliberately deposited or originated from a deposit enriched in quartz pebbles.

On the western side of the enclosure, at the junction between the enclosure ditch and cross-cutting ditch (22062), a number of larger schist cobbles and slabs were noted. One of these, stone (22112), was a large sub-rectangular piece of schist 0.9m long, 0.46m wide and 0.19m thick. It appeared in section as an isolated slab, set almost vertically on its end (plate 64). The bottom of the stone was sunk within the primary ditch fill (22110/22109) and its top protruded through the upper ditch fill (22106) (figure 43.1). Stone 22112 rested against some other large stones and appeared to have slid over and down them, before coming to rest in its near vertical position. Given the size and weight of (22112) it is unlikely to have slid to its final resting place without aid to be pushed or dragged over the inside edge of the enclosure ditch.

A similar concentration of larger stones was noted on the other side of the enclosure at the east junction with the earlier cross cutting ditch (22062). The stony deposit here (22126) contained at least five large stones; sub-rectangular schist slabs approximately 0.1m thick and between 0.50 and 0.80m long, and 0.30 and 0.35m wide (figure 43.1). They were quite densely packed against the inside face of the enclosure ditch (plate 65). In the southern part of the enclosure another large stone slab appears to have been pushed or dragged into the ditch. The secondary fill of the ditch here (22080) contained at least one large schist slab at its edge, (0.6m long, 0.2m thick and at least 0.36m wide) together with some smaller slabs (figure 43.3, plate 66). They all appear to have been tipped into the ditch from the inside of the enclosure following the primary erosion episode (22079). A further substantial schist slab was located in the south-western part of the ditch. This slab was sub-rectangular and at least 0.75m long, 0.50m wide and 0.15m thick. It rested on and against the inside face of the enclosure ditch immediately to the north of the south-western corner and parts of its top were visible before excavation commenced. It also appears to have been pushed, dragged or carried to the edge of the ditch from the inside of the enclosure.

Stone 22112 was associated with a layer (22108) of firm, dark brown clay silt which contained four conjoining pieces of the rim of a medium sized undecorated, Early Bronze Age Food Vessel (sf1090). Another small piece of pottery (sf1104) was a body sherd from a different vessel, possibly a Beaker, and there were also two irregular chert fragments (sf1266).

The large slab recorded as part of stone deposit (22080) in the south-west corner of the enclosure, was associated with layer (22084), another deposit of loose dark greyish brown sandy silt with frequent charcoal (recorded in figure 43.4). The layer had accumulated against the inside edge of the enclosure ditch and partially filled the hollow surface of primary fill (22083). The layer contained six body sherds of a medium sized undecorated Early Bronze Age Food Vessel (sf1094), made from the same poorly fired crumbly fabric as sf1090. They may even be part of the same vessel. Some quartz pebbles (sf1362) were also recovered from the deposit.



Plate 65. Stones 22126 in D-shaped enclosure ditch, blocking cross ditch



Plate 66. Stone deposit 22080 in D-shaped enclosure ditch

The relationship of these slabs to the charcoal and artefact-rich deposits and the fact that where these deposits or those with quartz stones all occur at the same stratigraphic level in different parts of the ditch demonstrates that they were probably part of a single phase of activity.

Later ditch infilling

Following the activity discussed above the enclosure seems to have been abandoned and the ditch continued to fill gradually. Generally this fill consisted of an orange-brown silty deposit with small pebbles but its physical characteristics varied around the length of the ditch. The quantity of stones it contained varied and in places there were occasional flecks of charcoal. Very few finds were recovered from this deposit. In the north-eastern part of the enclosure ditch two chert flakes (sf5972) were identified within (22087), and in the south-east, a rubbing stone (sf1070) was recorded amongst the larger stones and cobbles in (22070).

All indications suggest gradual erosion of surrounding deposits into the ditch over a long time. This filled most of the ditch but a shallow hollow must have remained marking where the enclosure had been.

When first exposed the enclosure was defined by a stony deposit in a dark matrix, which had initially given the impression of it being a post-medieval feature. This stony deposit was seen along the entire length of the upper levels of the enclosure ditch, with the exception of the north-western corner. The layer was between 0.22 and 0.31m deep and consisted of medium to large angular blocks of schist and round and sub-rounded cobbles. The stones were contained within a generally loose, mid-dark greyish brown sandy or clayey silt matrix with occasional small pebble inclusions.

The stones along the eastern and southern sides of the enclosure appeared to be more densely packed, with some apparently deliberately placed along the centre line of the ditch. Although no evidence for coursing was identified, they gave the impression of being quite carefully stacked and seemed to possess a clearly defined outer edge or face at the base, suggesting a rough wall.

There appears to have been little trace of an upper stony deposit in a 3-4 long arc in the north-western corner of

the ditch. The upper fill here is recorded as a 0.07m deep, loose mid greyish brown silty clay loam with small rounded stones (22101).

The only finds recovered from the upper stony deposit came from the south-east corner, where deposit (22073) contained a variety of post-medieval material including fragments of clear window glass, small sherds of late pottery (sf1252 and sf1276), a piece of sawn roofing slate with a hole (sf1271) and some fragments of coke (sf1301 and sf1355).

On the eastern side of the enclosure, near to the junction with cross cutting ditch (22062), the stony fill was covered by a 0.20m deep layer of loose grey to blackish brown sandy silt with some charcoal (22127). The deposit contained post-medieval and modern finds including four pieces of post-medieval pottery, two pieces of glass, and a piece of clay pipe stem (sf2134). A similar deposit (22138) was identified in the south-west part of the enclosure overlying stony deposit with fragments of post-medieval pottery throughout.

Pits in and around the enclosure

Three small cut features were identified within the enclosure. All were sub-circular, no more than 0.5m in diameter, and relatively shallow (up to 0.12m deep) with charcoal-rich fills. No evidence for burning *in situ* was recorded but pit 22059 contained fragments of burnt clay (sf1303).

One (22059) was cut through the upper fill (22060) of cross cutting ditch (22062) at its west end. The two features (22200 and 22123) were identified within the south-western corner of the enclosure. Pit (22123) had apparently been disturbed by post-medieval activity resulting in the inclusion of a post-medieval sherd but no other finds were recorded from these pits.

Two features were located about 2m to the south of the enclosure. Posthole 22118 contained a number of packing stones, and must have held a substantial post, as the posthole was 0.72m in diameter and 0.3m deep. It produced a number of small fragments of pottery. Sf3049 was an unabraded Early Neolithic sherd but it was associated with a number of fragments that appeared to come from a Food Vessel (sf1222, sf1469, sf1491), so it is assumed that the Neolithic sherd was residual and that the posthole was more likely to be of Early Bronze Age date. The fill also contained a chert flake (sf1245), and some fragments of burnt bone (sf1315, sf4254, sf1293).

Nearby was a slightly larger pit (19049), which was circular, 0.62m in diameter and 0.15m deep. The pit was filled with a friable dark brown sandy silt (19050) with concentrations of charcoal throughout. There was no evidence of burning *in situ* and no finds were recovered.

Other smaller pits and postholes further from the enclosure may not be related to it or the other Bronze Age monuments as Early Neolithic pottery was recovered from some of them. They have been discussed above in the Early Neolithic section.

Finds and dates

The pottery from the enclosure ditch was Early Bronze Age in date. There are seven sherds and scraps from a small undecorated Vase Food Vessel (Sf 1090 /1094) from two different points in the ditch. This pot has a rim diameter of 200mm and a probable height of 220mm, a sharp inwardly bevelled rim and an unusually high shoulder. Another pot is represented by a single large sherd decorated with lines of fingernail marks (sf1074). The dating of this sherd has been the subject of much debate but the conclusion is that it is probably an undecorated Vase Food Vessel.

The pottery and related charcoal appear to have been part of a deposit formed inside the enclosure and subsequently pushed into the partly filled ditch along with the large stones. One of the stones pushed into the ditch was an abrading slab (sf1070) with wear polish on one face. It is therefore argued that the radiocarbon dated material and the pottery can be used to date the activity in the enclosure. However this interpretation of the origin of the deposit cannot be proved and the relationship of the finds and dates to the use of the monument must remain in some doubt.

The fills of the D-shaped enclosure ditch contained 76 small white quartz pebbles, found at various points within the ditch. The pebbles fell within a limited size range, between c. 15-75mm diameter. The presence of such distinctive stones suggests that they were carefully selected and collected. White quartz pebbles are frequently found in association with both Neolithic and Bronze Age burial monuments and regarded as token deposits, rather

than burial goods.

Identifiable charcoal remains were recovered from two samples from the fills of the ditch segment 22072 and three samples from fills in segment 22082. All these samples contained only oak charcoal. A further sample from pit 22059, cutting the fill of the cross-cutting ditch (22062), also contained only oak charcoal.

Two radiocarbon dates were obtained from context 22108, which contained Food Vessel sherds. These dates (1220–1020 cal BC (SUERC-83290) and 1200–1010 cal BC (SUERC-84056)) are statistically consistent and could be the same age, suggesting that the material in the ditch did come from a single phase of activity. However these dates are Middle Bronze Age and late for Food Vessels, so some mixing of the remains of activity of different periods may have occurred though all the evidence suggests a Bronze Age date in general for the construction and use of the monument.

Interpretation

This monument is very difficult to classify in terms of its function and purpose. With an absence of funerary deposits it can only be assumed that this is some form of ceremonial monument. The presence of the ring-ditch and cists make it natural to assume that the enclosure was in some way related to these. The Food Vessel pottery found in the ditch suggests that the activity in the enclosure was similar in date to the multiple cist barrow, which also produced a Food Vessel.

The early ditch (22062) and the shape of the northern end of the monument suggest that the ditch may have been part of a circular ditched enclosure (figure 42 inset). Most of this early ditch was then cut away by the D-shaped enclosure ditch. This early enclosure probably had an internal diameter of about 3.5m to 4m but surrounded by a ditch up to 1m deep a depth that seems out of scale with the area of the enclosure. The monument seems to have developed from this small circular feature to a larger enclosure, perhaps suggesting a change of function.

Bronze Age barrows are generally created from the upcast from the surrounding ditch, but in this case the interior space seems to be too small to accommodate the material dug from the ditch. This raises the question of whether this feature was the ring-ditch for a barrow. Despite intensive cleaning by hand, no funerary deposits or structures were discovered within either the original or later form of the enclosure, although this cannot rule out the former existence of cremation burials within a mound. The ditch sides, cut in loose gravels, were not eroded and there was little primary silting in the base of the ditch. It seems unlikely that the ditch was open to the weather over a winter. The fills were clean gravel with little evidence of mixing with topsoil and these factors suggest that the fill was redeposited back into the ditch shortly after it was dug. The rapid refilling of ditches that seem to be dug purely for the process of digging them is seen in Neolithic causewayed camps and has occasionally been reported from Iron Age enclosures.

The surviving portion of the cross-cutting ditch appears to have been completely in-filled, and probably deliberately levelled. The whole sequence of digging and filling was certainly complete before the creation of the later enclosure ditch, but the time span between the digging of the two ditches might have been short. The later ditch followed the earlier ditch very closely around the northern end of the monument, that the eastern and western ditches were 'pinched' in creating a distorted number 8 shape, when they could easily have been parallel. The inside edges of the ditch clearly curved inwards at each side towards the truncated ends of the cross cutting ditch (22062). It is possible that there was an intention to express some kind of continuity between an earlier and later monument, a desire to incorporate not just the area enclosed by the original monument, but also to retain elements of its shape in plan.

The new southern part of the enclosure did not define a regular form. This is not an example of two conjoined ring-ditches as at Plas Gogerddan (Murphy 1992) as the southern part of the enclosure is unlikely to have surrounded a regular circular mound. It may be that the precise shape was of little importance. Although the ditches remained deep there was more room in the interior to contain a mound made from ditch upcast. However the differential infilling of the ditch is more suggestive of an external bank than of material being mounded in the middle of the monument. The rapid initial infilling of the ditch seems to have come from this unstable bank, as the sides of the ditch were steep with little evidence of collapse due to erosion.

There were no causeways across the deep ditch so, unless some kind of plank bridge was constructed, access to the interior would have been very difficult. The large slabs that ended in the ditch clearly came from the interior of the enclosure, where presumably they had formed some kind of structure. A continuous stone bank or wall seems

unlikely, as in this case large stones would be present all the way around the inside of the ditch. The stones seem to have been pushed in at the corners of the southern part of the enclosure and they might have originally laid or stood near those corners. It is tempting to imagine them as standing stones, but unless the holes that held them were very shallow some indication of their original positions should have survived.

At some point the monument seems to have been deliberately slighted and the stones were pushed into the ditch. With them went considerable quantities of what resembles occupation debris with charcoal, occasional burnt bone fragments, a few lithics and some pot sherds. This material may have been generated by the people slighting the monument but it is more likely to have been produced during the monument's use. Disturbance inside the enclosure might have destabilised existing deposits that then washed into the ditch or the material might even have been deliberately dumped into the ditch to ritually clean the interior.

The possible deposition of quartz pebbles during this phase of activity might indicate that it was not an act of desecration but a respectful ritual of closure. The deposition of quartz pebbles is attested at Neolithic chambered tombs in many parts of British and Ireland (Darvill 2002, 81). In North Wales, Capel Garmon, Pant y Saer and Tŷ Newydd all contained quartz pebbles, as did the Anglesey passage graves, Bryn Celli Ddu and Barclodiad y Gawres (Lynch 1969, 150).

The Food Vessels suggest an Early Bronze Age date for this second phase of activity or for the use of the monument. The other monuments in this area demonstrate that there was Early Bronze Age activity nearby. It is possible that much of the material was from a ground surface or occupation deposit related to these and not associated with the enclosure at all. The primary fill seems to have been deposited rapidly but there seems to have been some stabilisation and the development in places of an incipient soil. The secondary activity may therefore have been sometime after the creation of the enclosure, but there was no time for significant silting and erosion into the ditch as would have occurred if it had been open for a long time. It is therefore suggested that the secondary activity was a matter of years rather than decades after the construction of the enclosure.

Ring-ditch (PRN 31590)

See figure 22 for general location, for plan of ring ditch see figure 44 and for sections see figure 45

A ring-ditch (group number 40193) lay on the south-eastern edge of the plateau at SH 2523 8105. It was sub-circular in plan with a maximum external diameter of approximately 12m north-south and 11.3m east-west (plate 67). The ditch defined a level, sub-circular area which measured internally up to 8.7m east-west and 9m north-south. The feature was initially investigated by excavating five 1-2m long segments along its length (figure 44). The cut of the ring-ditch, recorded as 40017/40018/40021/40025/40030, was widest in the north-west quadrant



Plate 67. Ring-ditch PRN 31590

where, as (40030), it reached a width of 1.83m in section. Elsewhere it was generally between 1.5 and 1.34m wide, though it was narrower in the south-east quadrant where, as (40018), it was just 1.19m. This narrowing was probably due to truncation as the ditch was also much shallower in this quadrant, at only 0.19m. Its maximum depth of 0.4m was identified in the north-east quadrant (40021), whilst elsewhere it tended to be around 0.3m deep. The ditch sides tended to be steep on the outside and gradually sloping on the inside but it was variable in profile. The base was generally fairly flat. Along the northern arc there was a deeper, steep sided cut in the base of the ditch. This was initially mistaken for a later recut (see below) but the section showed that the cut was sealed under ditch fill and was part of the original form of the ditch (figure 44). Why this deeper section appeared only in this location was not clear.

The primary fill of the feature was generally consistent around the circumference of the ditch. The deposit, recorded as (40020/40022/40027/40031/40091), consisted of a generally firm, mid brown to orange brown sandy silt with a high proportion of gravel and small stone inclusions. This primary deposit more or less filled the cut of the ring-ditch. It was similar to the natural material into which the ditch was cut and could have formed from the natural silting of the feature over a prolonged period. No evidence for tip lines that may suggest an earthen bank around the ditch or mound within the central area were noted. No finds were identified within the primary fill during the excavation stage of the project but very small quantities of hammer-scale (sf5847 and sf5890) were subsequently recovered from wet sieving. However these are so small that they could easily be intrusive. Wet sieving also produced a few burnt bone fragments (sf3109 and sf4298), and a small black hexagonal bead (sf4297), possibly of jet, but it is so small that again it is probably intrusive.

An upper fill of the ring-ditch was also identified in places, which appeared to extend over the edges of the cut in some places and contained fragments of post-medieval pottery and glass. This fill was probably derived from the post-medieval ploughsoil accumulating in the top of the hollow formed by the partially silted-up ring-ditch.

All of the area enclosed by the ditch was archaeologically examined however no internal features were identified, despite extensive hand cleaning and subsequent re-machining.

Recut

Cutting through this later fill was a narrow cut, concentric with the ring-ditch and running approximately along its centre line. This was recorded as (40016/40023/40028/40033), where it was originally identified in four of the five excavated segments (figures 45.1 to 45.5). It was particularly apparent in the north-west quadrant, where it was recorded as (40033) and was approximately 0.27m deep and 0.63m wide, extending through the primary fill and all the way to the bottom of the ring-ditch cut (40030). In the north-east quadrant the fill of the recut (40023) appeared to be less easy to differentiate from remnant ploughsoil in the area but it still but appeared to be around 0.55m wide and 0.25m deep. On the northern arc of the circle, where the recut was recorded as 40028, it was only 0.22m wide. Later, more extensive, excavation of a 9.2m long arc of the ring-ditch cut along its west side, established that the recut, now renumbered as (40201), was present along the complete length of the excavated segment. Wherever it was identified, it generally had steep sides and a generally flat base.

The recut was filled with a stony deposit, which generally contained a high proportion of larger stones. In some places more angular stones appear to have been deliberately laid flat, but much of the fill consisted of randomly placed cobbles.

The only part of the ring-ditch where the recut was not recorded as such is in the south-east quadrant. In this area a secondary ring-ditch fill (40019) was identified. It consisted of a shallow layer of dark blackish brown gravely silt, 0.12m deep and 0.65m wide in section. Though apparently lacking the large stones seen elsewhere, the fill does appear to be similar to the soil matrix of the stony recut fill and it probably represents the truncated remains of the recut in this quadrant. The recut, therefore, seems to have run round the full circumference of the ring-ditch.

The recut produced no finds except some fragments of burnt bone (sf4343 and sf5573), some of which were cattle-sized long bone fragments.

Interpretation

It seems most likely that this almost perfectly circular feature was the ditch surrounding a Bronze Age barrow, but the lack of any Bronze Age finds or traces of a burial do raise an element of doubt. The proximity of other significant Bronze Age monuments in this area supports this interpretation, but the recut potentially could undermine it. One or more cists might have been expected inside a ring-ditch, under the barrow that would have filled the interior.

However, many ring ditches interpreted as remains of barrows lack burials. In these cases it is assumed that cists and other burials were located within the mound that has been lost, or small cremation cists under the barrow have been destroyed by ploughing.

In southern England plough truncated ring ditches that lack burials are found. Thirteen of the sixteen ring ditches excavated on the High Speed I rail link in Kent had no trace of burials, although many of these are argued to have been barrows. Only two of ten ring ditches at Monkton, Thanet and none of the four sites at St Osyth, Essex and six sites at Biddenham Loop, Bedfordshire had burials. Pottery fragments and burnt human bone occasionally found in ditches suggest that some of these did have burials, but that these had been destroyed, along with the barrow, by ploughing. However such sites provide poor comparisons for dating the Parc Cybi ring ditch as they are also poorly dated (Garwood 2011, 125, 128). The southern ring ditch at Wasperton, Warwickshire (Hughes and Crawford 1995, 23) had no surviving burials, though Early Bronze Age pottery found in the ditch suggested the former presence of burials in the destroyed barrow mound.

On Anglesey a large barrow at Llanddyfnan excavated in the early 20th century had cremation burials only in the barrow mound and no central burial under the mound (Lynch 1991, 172-3). The removal of this mound would have removed all trace of burial. The barrow at Treiorwerth also had cremation burials incorporated into the mound, though it also had some burials under the mound (Lynch 1991, 183). At Merddyn Gwyn, Pentraeth secondary cremation burials had been inserted in the mound over a Beaker inhumation burial (Lynch 1991, 186). Bowen and Gresham note that in Merioneth not all cairns had central cists and that some cists were raised in the body of the cairn, though most of these sites not been properly excavated (Bowen and Gresham 1967, 74). It is notable, however, that none of these barrows and cairns had ring ditches.

Earthen mounds in Wales are usually built of turves and therefore do not require ditches to provide material for the mound (Lynch 2000, 128), stone cairns are also unlikely to have ditches, so ring ditches are not such a clear indicator of Bronze Age barrows as in southern England. However, a significant number of Bronze Age barrows in Wales do have ring ditches. One excavated at Llandygai (Lynch and Musson 2004, 86-90) was enlarged twice with the original and second phase having ditches but the last phase lacking a ditch. The barrow seemed to have had a central burial but there was little else visible inside the ring ditches. Three of eight ring ditches excavated at Four Crosses, Llandysilio, Powys (sites 3, 4 and 7) had no burials cutting the surface under the mound, although it is possible that at site 3 a later boundary ditch had removed a central burial (Warrilow *et al* 1986, 62-63, 69). No trace of a mound or buried soil preserved under it survived from these barrows, which had been subjected to intensive agricultural activity (Warrilow *et al* 1986, 83). Ring Ditch 1 at Coed y Dinas site 3, near Welshpool (Gibson 1994, 165, 181) also had no burials cut into the ground, though it had two opposing causeways across the ditch making it less typical of barrow ditches in the region, and possibly a hengiform feature rather than a barrow.

Two of seven small ring ditches at Bodnithoedd, Botwnnog were excavated (Ward and Smith 2001, 46-54) and found to have very shallow traces of probable grave cuts in the centres but these were so shallow that they might easily have been lost by ploughing. These ring ditches were smaller than that at Parc Cybi with internal diameters of 6.2m and 6.4m, compared to about 9m for the Parc Cybi ring ditch. An Iron Age radiocarbon date was produced from a charcoal deposit in one ditch and Ward and Smith (2001, 54) use this, along with the lack of secondary burials or pottery, to suggest that these might be Iron Age or even Roman-British barrows. This dating is far from secure but raises the possibility that a later date could perhaps be considered for the Parc Cybi example.

The closest example of a barrow lacking burials cut into the ground beneath is the Tŷ Mawr barrow, found less than 300m north of the Parc Cybi ring ditch. In this case there was no surviving mound, though a buried soil had survived under where it would have been and no Bronze Age burials cut this buried soil, although there was also a long cist cemetery over the area (Kenney and Longley 2012). The Tŷ Mawr barrow was slightly larger than the Parc Cybi ring ditch at 10.8m internal diameter and varied in having a penannular slot in the middle, but it was not entirely clear whether this belonged to the barrow or the later cemetery (Kenney and Longley 2012, 110, 118). The upper fill of the ditch of the Tŷ Mawr barrow was full of stone, possibly from a collapsed revetment to the barrow, but this differed from the thinner band of stone in the Parc Cybi ring ditch, which appeared to be in a much narrower recut (Kenney and Longley 2012, 112).

Hughes (2012, 245-246) suggests that the Tŷ Mawr ring ditch probably dates from the Middle or Late Neolithic, using the dates from postholes just inside the ring ditch to date the feature rather than assuming that they belong to earlier activity. He suggests that the stone in the upper fill of the ring ditch was packing stone for a timber palisade or circle of free-standing stones. The stones as seen during excavation and as recorded were not positioned to

suggest packing stones, and this interpretation does little to explain why there was a ditch rather than just a palisade slot. However, the later slot in the Parc Cybi ring ditch, with its steep sides, did more closely resemble a palisade slot. The stones in this were more scattered, though the larger stones were generally laid flat and none were on edge like packing stones. The ring ditch itself was clearly earlier than this slot, which had been dug after the ditch had been entirely backfilled. Hughes supports his argument about Tŷ Mawr by referring to Neolithic ring ditches in Warwickshire. Wasperton (Hughes and Crawford 1995) had two ring ditches, one undated, very narrow with gaps or entrances, and the other quite similar to Tŷ Mawr but the non-residual pottery from it was Bronze Age. There is nothing in the published report to suggest that either of these were Neolithic in date. At nearby Charlecote (Ford 2003, 18-22, 28) one of the two ring ditches had Neolithic finds but this also had a central burial, so there is no direct comparison with Tŷ Mawr.

Although neither the Tŷ Mawr nor the Parc Cybi ring ditches have been effectively dated and a Neolithic date might be a possibility, Hughes suggestions do not seem well-enough supported to demonstrate this. An Iron Age date might be possible, but unlikely, as there is little evidence for Iron Age ring ditches in the region. It is argued that both ring ditches fit better with the numerous Bronze Age barrows from North Wales and beyond. However, there has been some concern that the Parc Cybi ring ditch might be of a much later date. There are circular features on the site of a probable post-medieval date that may be haystack drainage gullies or similar features. One example is feature 70491 in Area J, which may have formed part of the early Trefignath Farm (see below). However, this ring gully was considerably smaller than the ring ditch, at about 5m internal diameter. Two ring gullies were found at Dolbenmaen, Gwynedd (Kenney and McNicol 2017), one of which was clearly a stone-filled circular drain but the other had less stone and quite closely resembled the Parc Cybi ring ditch. The proximity of the two ring gullies to each other and to a medieval settlement led to both being interpreted as medieval rickyard drains.

The recut in the Parc Cybi ring ditch probably followed a slight hollow left by the infilled ditch, but it may have been dug around the base of the still surviving barrow mound. It was narrow, steep-sided and had a stony fill, so it was consistent with being a circular drain. It seems possible that the recut was the result of converting the low mound into a rickyard, or similar agricultural feature, in the post-medieval period. However, the relatively brightly coloured, and therefore inorganic, main fill of the ditch is suggestive of much greater antiquity, giving some confidence to a Bronze Age date, though dating features from the colour of ditch fill is hardly the most reliable dating method.

If the ring ditch does mark the location of a Bronze Age barrow the lack of a cist suggests that it was probably later Bronze Age and the mound held small cists with cremation burials or pots containing cremations. This suggests the reuse of this area later in the Bronze Age, after the D-shaped enclosure went out of use but when the multiple cist barrow was still clearly visible. The Tŷ Mawr barrow 300m to the north and the standing stone to the south-west add to this group of ceremonial and funerary monuments.

The Tŷ Mawr Standing Stone (PRN 2501)

(SAM A12, SH 2539 8095, see figure 46 for location)

The standing stone is an attractive piece of schist with swirling bedding planes, and an almost anthropomorphic shape (plates 68 and 69). It stands c. 2.5m high, and is a maximum of 1.7m wide and 0.4m thick. It is located on a local high point, at an altitude of 12m OD, but not on the highest point in the area. The views are good all round, but especially good of Holyhead Mountain. When the stone was inspected during the initial assessment of the development area in 2000 (Kenney 2000) it stood in a slight hollow caused by livestock eroding the ground around it. This had exposed the packing stones around the base of the monolith. No earthworks were noticed around the stone, despite the grass in this field being particularly short at the time.

A small square marks the stone on the 1889 map, but it is not labelled; on the 1926 map it is marked as a *maen hir*. The monument is listed by RCAHMW (1937) as a *maen hir* 83/4 ft high 4ft wide and 11/4ft thick. Baynes (1910-11, 71) states that its south-east face is facing the summer solstice sunrise, and that an alignment from here to the burial chamber at Trefignath is within one degree of the winter solstice sunrise. Geophysical Surveys of Bradford carried out both magnetometry and resistance surveys around the stone in 1990. The resistance survey revealed a possible bank around the monument (PRN 74683), and associated linear features (figure 47) (Ovenden 1990b). There is a possibility that the circular anomaly could be the trace of a former fence, but no such fence is shown on any map and the photograph by Baynes (1910-11, fig. 35) shows a flat field with no hint of a former fence or recent boundary.



Plate 68. Tŷ Mawr Standing Stone (PRN 2501)



Plate 69. Tŷ Mawr Standing Stone (PRN 2501), taken in June 2018 after the construction of the Truck Stop

In the current development an open area has been left around the stone and running towards the chambered tomb to preserve the site lines between the monuments. No investigation was therefore carried out close to the stone. However, all around the excluded area was stripped and revealed to contain very few features (figure 46). Most of the few features that were found were probably not genuine anthropogenic features. Cut 19136 in Area M3 was a large shallow pit with a peaty fill containing some charcoal and occasional burnt stones with tiny fragments of burnt bone, but it is more likely to have been a root hollow with some burning than a deliberate pit. Other features, such as an irregular group of hollows (19146, 19148, 19154, 19184, 19186 and 19188), possibly also the result of root activity, contained fragments of 18th or 19th century pottery and were probably late in date. Pits 19184, 19186 and 19188 were located about 60m south-east of the standing stone. They shared the same greyish brown silty fill, but lacked dating evidence. About 110m north-west of the stone were three pits (19090, 19194 and 19174) with brown silty fills but no dating evidence. Closer to the stone on the west side, within Area M3, were other pits and hollows but none produced any finds or other dating evidence and there was little evidence of burning or charcoal. While these were possibly prehistoric features, it seems that they were of little significance.

Two features to the south-east of the stone (03078 and 03082), that contained burnt stone, could possibly be Bronze Age. These are discussed below as PRN 31587. A flint scraper (PRN 36277) was recovered from test pit 105 to the south-west of the stone in 2006 (J. A. Roberts 2006), but no other features were identified here during the area excavation. Apart from these features the stone seems to be in some isolation from contemporary activity, as far as could be determined from the area excavated.

During the initial assessment of the development site a recumbent stone was identified about 110m south of the standing stone. This was recorded as PRN 18404 but an evaluation trench demonstrated that this was a glacial erratic embedded in the natural subsoil and was not of any archaeological importance.

Timber roundhouse and other features in K1 (PRN 31588)

See figures 48 and 49

A circular structure interpreted as a timber-built roundhouse was excavated in Area K1 (plate 70). It was not possible to date this feature but it is consistent with Bronze Age roundhouses and there was Bronze Age activity in the vicinity so it is discussed under this section. There were pits and other features surrounding the roundhouse but it could not be determined which were contemporary with it.

Timber roundhouse

A circular structure defined by postholes was located on the lower, eastern slopes of a small rounded hill in Area K (SH 25662 80795). It was also in the lee of a low outcrop of schist and boulders, which lay to the south-west. It comprised two almost concentric rings of heavily truncated and shallow post and stakeholes and associated features.

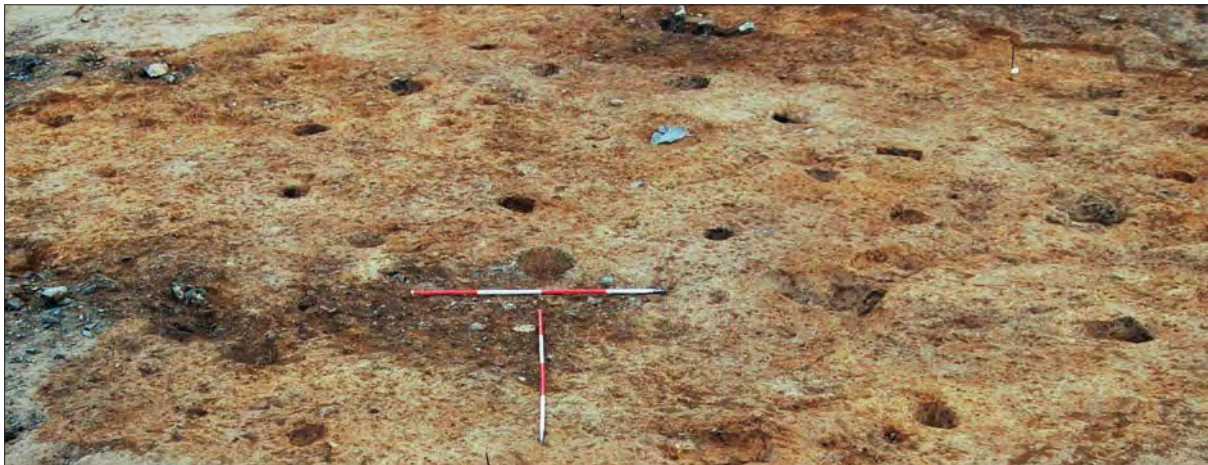


Plate 70. Post ring of timber roundhouse (PRN 31588)

Inner ring

The inner ring consisted of an arrangement of 10 postholes set in opposed pairs, which formed a circle about 5.4m in diameter. The majority of the postholes were sub-circular and between 0.37 and 0.31m in diameter with a depth of between 0.19m and 0.13m. Four cuts, (20070), (19098), (19096) and (18136) formed a continuous arc of larger postholes on the north side of the structure. Their diameters were between 0.45 and 0.40m and they were between 0.39 and 0.15m deep. The postholes were filled by a mid-brown to brownish grey silty sand or clayey silt, and some contained occasional flecks of charcoal. Cuts (21065), (18136), (18131), (19096) retained evidence for disturbed post packing in their fills whilst (18133) contained the possible remains of a postpipe.

One other possible posthole (21071) lay just inside the inner circle of posts. At 0.27m wide, 0.24m long and 0.22m deep it was similar to the smallest of those from the inner ring. Its location was reflected in the north-west quadrant by the position of a comparably sized flat broken stone (25002) that may have been the remains of a post pad. These features may have supported a pair of posts inside the eastern half of the post ring.

Outer ring

The outer ring consisted of 9 much slighter features, which intermittently described an approximately circular area 11m in diameter. The early ground surface appeared to have been heavily truncated, presumably by ploughing, and this made the identification of archaeological features difficult. A number of the potential features that were initially suspected to be postholes on the circumference of the ring were subsequently proved to be natural in origin. Some of the features on or near this outer ring were small stakeholes (21075 and 21073), and it may be that there had been other stakeholes on this line that had been lost. Both were around 0.11-0.12m in diameter, the former was 0.13m deep, whilst the latter was just 0.04m. The other features, whose size is more consistent with an interpretation as postholes, were sub-circular in plan and mostly between 0.23 and 0.45m in diameter. One example (21077) was only 0.04m deep, and would have been disregarded as an archaeological feature if it had not been on the outer ring. The rest of the postholes were between 0.09 and 0.20m deep, and were filled with a mid-brownish orange clayey silt or silty sand; a few of them also contained occasional flecks of charcoal.

In the south-eastern quadrant of the building, between the inner and outer post rings, was a small patch of charcoal-

rich silt (18157), 0.64m in diameter with a maximum depth of 0.08m. Its fill contained quantities of charcoal, all oak charcoal, concentrated in lenses, and an utilised flint flake (sf2175). A small shallow pit (18159), 0.55m in diameter and 0.09m deep, was located adjacent to the north-west edge of 18157. Another small stakehole (21061) was identified just outside the circle of inner posts. It was 0.12m in diameter, 0.18m deep and inclined towards the outside of the structure.

External postholes

A further 3 postholes (18145), (18148) and (18150) lay just outside of the outer ring on its north-west side. Together with postholes (22028) and (21077) from the outer circle, (18145) and (18147) formed a sub-rectangular shape with feature 18150 located approximately in its centre. These postholes were all sub-circular with diameters of between 0.22 and 0.25m. Again the features appeared to be heavily truncated and their depths were variable, ranging between 0.19 and 0.06m. All three were filled with a mid-greyish brown sandy silt with occasional flecks of charcoal. Posthole 18145 was the deepest and best defined of this group and contained a possible postpipe and a single large stone that may have been packing material. The rectangular layout of postholes might an entrance porch and this possibility is considered below.

Other features, some possibly postholes, were also found in this area between the two post rings, showing that there were extra features concentrated in this area. These features (19106, 21079, 21081, 22024 and 22026) were no more than 0.29m in diameter and up to 0.11m deep with no evidence of packing stones or post-pipes.

Bronze Age pits and other features

See figures 48 and 49

Two pits in Area K1 produced sherds of Bronze Age pottery. These were some distance from the roundhouse to both the west and east. Close to the south-western boundary of Area K1 lay a depression or pit (20081). It was a shallow, oval bowl-shaped feature, approximately 1.1 m long and 0.76m wide and 0.11m deep (figure 49.3). The edges of the feature showed the signs of oxidation and fire reddening consistent with episodes of burning *in situ*. Its single fill consisted of approximately 15% charcoal in a sandy silt matrix. It was one of the few features in the area that contained many finds; sherds from a Cordoned Urn, including some rim sherds (sf1031, sf1476, sf2063) (volume 3, Fig I.1.1.12) and a single flint flake (sf2064) were recovered from its upper levels. The *in situ* burning suggests a possible fire pit but there were no layers of charcoal as might be expected to be found in an undisturbed hearth. The charcoal from this feature was dominated by willow/poplar with a substantial proportion of hazel and a smaller amount of oak charcoal. The fill also contained charred cereal grains; the identifiable grains being predominately wheat, but barley was also present (McKenna, volume 3, part XIX.4).

Nearby cut 18166 was of a similar size but slightly deeper at 0.23m. It lacked any evidence for burning and contained no finds.

To the east of the roundhouse was a shallow sub-circular feature (18124), which measured approximately 1.3 by 1.02 m and was 0.2m deep (figure 49.2). It contained frequent flecks of charcoal, burnt and heat cracked stones, tiny fragments of burnt bone (sfs 1300, 1499 and 4289), and fragments of possibly Late Bronze Age pottery (sf1209 and sf3051). The largest sherds of pot (sf3051) were two featureless sherds, not from the same pot, that could belong to a Late Bronze tradition. Feature 18124 contained much more charcoal than pit 20081. This was mostly oak with a smaller amount of *rosaceae* (rose family) also present.

Other Bronze Age activity in the wider area might be indicated by a sherd from the rim of a Food Vessel (sf1635) (volume 3, Fig I.1.1.12) found on top of the hill to the north-west of the roundhouse. This was found in ploughsoil and there were no associated features.

A scatter of other features was found across Area K1 around the roundhouse, some of which contained finds. Features in the western half of Area K1 included three shallow hollows (2165, 21083 and 23011), measuring 0.53m, 0.23m and 0.56m in diameter respectively but no more than 0.10m deep. Feature 2165 contained a chert awl on a thick core trimming flake with a retouched point (sf1032). A larger pit (19109), about 2m long by 1.4m wide and 0.28m deep, contained fragments of flint sf1521 and tiny crumbs of prehistoric pottery (sf1523).

A small group of four possible postholes, cuts (22037), (22039), (22041) and (22043), lay in the western corner of the area adjacent to Lôn Trefignath (figure 48). The four features were spaced between 1m and 1.8m apart and possibly formed the corners of a sub-rectangular structure surrounding a patch of heavily oxidised clay (22044).

They were all sub-circular in plan, between 0.4m and 0.3m long and 0.2-0.25m wide with little evidence of packing material. They appeared to be heavily truncated and (22037) was the deepest of the group at 0.15m. Only one posthole (22039) contained any finds; a single flint flake (sf1044).

In the south-west corner of the site, around 20m to the west-south-west of the roundhouse, a group of shallow cut features formed an arc (figure 48). Cuts 21085 and 21086 appeared to be of recent origin, but 19112, 19113, 19115 and 19117 appeared to be a shallow pits or postholes, measuring 0.35 to 0.95m in length by 0.30 to 0.85m in width but no more than 0.16m deep. Feature 19112 had a possible packing stone in its fill, and feature 19113 contained tiny fragments of what is probably prehistoric pottery (sf1253). These features may have been associated with a pair of deep, well-defined postholes a few metres away to the north-west. Posthole 18169 was 0.55m in diameter and 0.46m deep, and posthole 18172 was wider at 0.7m in diameter but 0.38m deep. The fill of posthole 18172 contained that may represent disturbed post packing. No diagnostic artefacts were recovered from either of the features. Both would appear to be much more substantial postholes than the group of features to the south-east discussed above, and quite different to the predominately heavily truncated examples identified elsewhere in K1.

To the east of the roundhouse there were fewer features, some of which were identified as natural. One of these, a large irregularly shaped tree-root hollow (22021), was located to the north-east east of the roundhouse. During its excavation a flint flake sf5782 was recovered. Nearby shallow hollows (19091 and 19093) also may have been natural features. Other features to the east of the roundhouse included four truncated stakeholes (18127, 19089, 19088, and 18120) (figure 48). They all had a diameter of between 0.2 and 0.1m and a maximum depth of 0.18m.

Finds and dates

Only a single find was recovered from anywhere within the timber roundhouse. This was an utilised flint flake with microchipping and gloss (sf2175) from deposit 18157. There was very little charcoal from the features with most being unidentifiable flecks.

There were 26 sherds from a single Cordoned Urn (SF 1031 and 1476) from pit 20081 (volume 3, Fig I.1.1.12). The sherds are all abraded and there are no joins on ancient breaks though they all come from a segment of the upper part of the pot. The decoration is made by lines of thick cord carefully impressed in the upper section between the simple upright rim and the cordon.

Pit 18124 contained two quite large but featureless sherds (sf 3051) from two different pots. Neither of these sherds is closely dateable but they could belong to a Middle to Late Bronze Age tradition.

Radiocarbon dates were obtained from pits 20081 and 18124. The former proved to be earlier Bronze Age in date fitting with the cordoned urn (1630–1500 cal BC (SUERC-81368) and 1610–1430 cal BC (SUERC-83295). Pit 18124 produced two very different dates. It is assumed that the date of 770–480 cal BC (SUERC-81367) is on intrusive material and that the pit can be dated to the Middle Bronze Age by the other date (1380–1120 cal BC (SUERC-83291)).

These dates and related pottery do little to help date the timber roundhouse. They represent different periods in the Bronze Age and are not directly linked to the house other than through their spatial association and their presence in the area does raise the possibility that the house was in use at one or both of those periods. The house itself could not be directly dated. The postholes that were clearly part of the house structure did not contain any datable material. There was a patch of charcoal (18157) within the area of the house, which could possibly have represented the remains of a hearth, but could equally have been a burnt-out root hollow. Deposit 18157 was not in the centre of the house where a hearth might be expected and there was nothing to prove that it was related to the use of the house. If dated, even if it had produced a Bronze Age date, this could not have been used to prove the house was Bronze Age as it could have been Iron Age or later with a chance patch of burning in the soil beneath it. No dates were therefore obtained for the house.

Interpretation

The spatial relationship of the two post rings, together with the similarities in the sizes, shapes and fills of the features, suggests that they are closely related, and formed part of a single circular structure. This appears to have been a timber-built roundhouse approximately 11m in diameter, with an inner post ring 5.4m in diameter. In such a scheme, the inner ring of postholes would have held posts supporting the roof on a ring beam, whilst the outer ring indicates the external wall. This form fits the description of double-ringed roundhouses found across southern

Britain in Bronze Age and Iron Age contexts (Guilbert 1981).

The suggestion that there was a porch on the north-western side is possible but uncertain. Roundhouses often had their entrances facing east or south-east, though that rule does not seem to have been strictly applied in North Wales, and particularly on this site (see below). However a porch on the north-west side of this roundhouse would have been facing upslope, presenting a drainage problem. In addition, the slightness of the postholes involved argues against them supporting a porch. Generally the postholes of the porch of a roundhouse are the largest and deepest of the structure, which clearly does not apply here, even taking truncation of the deposits into account. It seems likely, therefore, that this is just a fortuitous pattern of postholes and not a porch.

The features that form the external wall were more irregularly spaced than those in the internal post ring, and were absent along large parts of the northern arc of the circumference of the proposed wall. However, the truncated state of the postholes on the site suggests that only the bases of the deepest cut features survive.

Most of the features around the timber roundhouse are vague and truncated, with only a slim scatter of flint flakes to indicate a prehistoric date. However, pit 20081 contained a quantity of cordoned urn sherds giving an Early Bronze Age date to some at least of this activity. Feature 18124 to the east of the roundhouse also suggests some Late Bronze Age activity, so even if much of the activity was Bronze Age it seems to cover a wide range of time. It is possible that many of these features related to the roundhouse that they surround, but there is no evidence to confirm this.

There may even have been other small structures in the area. In particular the arc of probable postholes (19112, 19113, 19115 and 19117) could have been part of a small sub-circular structure; the fragments of prehistoric pottery in 19113 perhaps suggesting that it was related to the timber roundhouse rather than the adjacent Roman period activity.

The possible date of the roundhouse by comparison to other sites

With the lack of datable material or diagnostic artefacts directly from the timber roundhouse its date must be deduced by comparisons to dated examples. Timber roundhouses are generally quite rare in North Wales but twenty two post-ring roundhouses were excavated within the Iron Age hillfort of Moel y Gaer, Rhosesmor, Flintshire (Guilbert 1976). These had post rings varying from 4.3m to 7.4m in diameter within houses estimated to vary between 6.5m to 11.5m diameter (Guilbert 1976, 306, 307). Comparisons can also be found in the Brenig Valley, Denbighshire. Under the kerb cairn, Brenig 6 was a circle 5m in diameter formed by 9 postholes with a hearth in the centre (Allen 1993a, 97, Allen 1993b, 158). Under a post-medieval hafoty was another circle of postholes (Brenig 48:07). This was 4m in diameter and formed of 7 postholes, with two others possibly forming a porch, and it also had a hearth in the centre (Allen 1993b, 160-61). The Brenig 6 circle can be dated to the Early or Mid-Bronze Age by the kerb cairn and hearth deposit over-lying it. The hearth produced a radiocarbon date of 1520-1050 cal BC¹⁵. Brenig 48:07 was associated with Malvernian Ware sherds, which suggest an Iron Age date. These rings of postholes were similar in size and character to the inner ring at Parc Cybi and, like that, can be suggested as being the post ring supporting the roof. Presumably the slighter postholes of the wall did not survive in the Brenig examples. Allen (1993b, 160) specifically says of Brenig 48:07 that “Any other evidence, such as the location of the wall-line or extent of the floor, would not have survived on a surface scoured by later activity”. It is possible that both these structures had a wall-line some distance from the post ring and that they were similar in size to the Parc Cybi house. However the two very different dates proposed for these sites do not help to suggest a date for Parc Cybi.

A probable posthole circle was found at Cefn Cwmwd, Rhostrehwfa, Anglesey (Roberts *et al* 2012, 37-41). This was dated to the Middle Iron Age and measured about 6m in diameter. This is possibly another example of a post ring lacking a trace of the external wall and it could be compared to the K1 roundhouse. The Middle Iron Age date for the Cefn Cwmwd post circle is similar to that of the Parc Cybi stone-built roundhouse settlement discussed below.

Excavations round the Devil's Quoit at Stackpole Warren, Pembrokeshire revealed an Early Bronze Age roundhouse. This had a post ring of about 5m in diameter and postholes defining a porch. The post ring was set into a circular hollow and could have been interpreted as a small structure of only 5m diameter. However, stratigraphic complexities and practical considerations led the excavators to suggest that there may have been an outer wall

15 3070 ± 90 BP (HAR-536) recalibrated

beyond the post ring, making it similar in plan to the Parc Cybi house, although still only about 6m in diameter and suggested as having a ritual rather than domestic function (Benson *et al* 1990, 189, 238). The destruction of the structure was dated by two radiocarbon dates to 2140-1700 cal BC (CAR-475) and 1880-1450 cal BC (CAR-100¹⁶) (Benson *et al* 1990, 239), making it Early Bronze Age. A similar but smaller (about 3m diameter) post ring was found as part of the later phases of activity on the same site (Benson *et al* 1990, 196). This was part of activity dating to the Iron Age and Roman period, but is not discussed in detail in the report.

At Arfryn, Bodedern postholes formed a post ring 5m in diameter defining a roundhouse, with other postholes probably forming an entrance on the east side, and probably within a sub-circle ditched and banked enclosure (Hedges 2016, 118-132). A date of 1410-1030 cal BC (CAR-1557¹⁷), from a deposit interpreted as originating from the burning down of the structure, suggests a Bronze Age date (Hedges 2016, 125). Various possible alternative reconstructions of the building are considered, most putting the post ring on the outer wall, so although the ring resembles that at Parc Cybi the reconstructed building would have been much smaller than that suggested for Parc Cybi. It is also suggested that either the building with the posts, or a later building, included a clay wall, making it even less like Parc Cybi (Hedges 2016, 125-128).

At Glanfeinion, near Llandinam, Powys a timber roundhouse was excavated (Britnell *et al* 1997). This had a post-ring 7.1m in diameter, a door defined by two pairs of intercutting postholes and a porch marked by stone-packed slots. The outside of the wall was indicated by a penannular ring-ditch with an internal diameter of about 11 m, though other interpretations of the position of the outer wall are suggested, making the building possibly slightly smaller at about 10m diameter (Britnell *et al* 1997, 195-6). This makes the post-ring larger than at Parc Cybi but the overall size of the structure about the same. It is notable that the entrance was on the upslope side of the house. There was no central hearth, though a pit near the wall seemed to have been used as a hearth or oven (Britnell *et al* 1997, 182). The house is associated with cordoned urns (Gibson 1997), perhaps hinting that the cordoned urn in pit 20081 could have been associated with the use of the house at Parc Cybi, though there was very much more pottery at Glanfeinion than at Parc Cybi. Two pits within the Glanfeinion house produced dates of 1420-1130 cal BC (BM-2971) and 1380-1010 cal BC (BM-2972¹⁸) (Britnell *et al* 1997, 195) giving a Middle Bronze Age date for the house.

A similar timber roundhouse has been found recently at Wylfa, Cemaes (Hotspot 14). This had a post ring of about 5m and traces of the outer wall. Associated with it were sherds of Food Vessel (Frances Lynch pers. comm.), perhaps supporting the idea that the cordoned urn pottery from Parc Cybi provides a date for the roundhouse and that it was Early Bronze Age rather than later.

These examples show that there were timber roundhouses in North Wales and that either a Bronze Age or an Iron Age date might be possible for the Parc Cybi timber roundhouse; the Bronze Age date supported by the nearby pottery and the Iron Age date by the number of other Iron Age houses in the area. Perhaps a Bronze Age date is most likely considering the similarity of Glanfeinion to the Parc Cybi house and the presence of cordoned urns on or near both structures. The date of the Parc Cybi house can, however, not be said to be confirmed by these comparisons, and its date will have to remain uncertain.

Possible Bronze Age Settlement in Area J

There was an extensive scatter of pits and postholes spread over the western part of Area J, to the north-west of, and below, the base of a rocky escarpment. In places these formed quite dense, well-defined groups of features and elsewhere they were more widely distributed. They were cut into a fine orange silt that can be identified as peri-glacial loess, which enabled the preservation and recognition of small, slight features (plate 71). The area was further confused by the presence of various tree and shrub root hollows, some of which had been burnt-out. During the excavation and assessment of potential phase of the project these features were grouped into numbered pit groups, but as many of the features in these groups were postholes, not pits, and several of the groups were composed of features from different periods, this numbering systems makes little sense and has been dropped for

16	Recalibrated CAR-475: 3570 ± 70 BP; CAR-100: 3350 ± 70 BP
17	95% probability, CAR-1557: 3000±70 BP
18	Recalibrated. BM-2971: 3040±40 BP; BM-2972: 2960±50



Plate 71. Part of Area J showing features cutting the orange loess. Also shows the base of an evaluation trench, which managed to avoid any features

this final report. Pits with Neolithic pottery have been discussed above and other feature groups are discussed below under their PRN.

Posthole Group PRN 31576

See figure 50 for general location and figure 51 for plan and selected sections

This group of features consisted of sixteen postholes (70387, 70334, 70385, 70336, 70409, 70394, 70411, 70416, 70418, 70380, 70424, 70338, 70390, 70420, 70422, and 70332), forming an uncertain circular pattern or staggered linear arrangement. The postholes lay to the north-west of the rock escarpment. They were cut into an area of orange-brown loess and were centred on NGR SH 25758 80700. The postholes were sub-circular in plan and the largest were up to 0.55m in diameter, but most were less than 0.3m in diameter. Only features 70380 and 70394 were over 0.2m deep; these were 0.36m and 0.30m deep respectively. Features 70338 and 70418 were particularly shallow at 0.07m and 0.08m deep. Feature 70387 was shallow with gently sloping sides and so appeared to be a small pit rather than a posthole, but the other features had steep sides and could be interpreted as postholes. The fills of the features were similar, ranging from mid-brown to grey-brown silt-clay, with some having more stones than others but none with packing stones.

Posthole 70422, located at the northern edge of the group produced a degraded prehistoric pot sherd of unknown date (sf6440), and posthole 70332 produced two knapped chert flakes (sf6035) and a smooth water-worn pebble (sf6036). Under a rough stone bank (70339) to the west of this group, and possibly related to the Roman period field system over this area, was found a sealed ground surface containing a sherd of what is probably a Food Vessel (sf 6352) and a flint end scraper (sf6377). These may have originated from activity associated with the postholes.

It is not clear whether the postholes represent a single structure footprint, or are more indicative of a distribution of activity over several events. The similarity of form and fills of the postholes suggests that they are roughly contemporary. The postholes can be joined in short lines, at least one group of four and a possible arc, but no combination makes sense of all or even most of the postholes, and it must be concluded that the nature and form of the structure or structures they supported cannot now be reconstructed.

Posthole Group PRN 31581

See figure 50 for general location and figure 52 for plan and selected sections

This group of features was located in the western part of Area J (SH 25743 80741) on the slope leading down towards the marsh in Area K6. These features were obscured by colluvium and were only revealed by intensive cleaning. This group comprised 25 features, many small stakeholes but some well-defined postholes and some larger pits. Most of the features were postholes with 70452 being the largest. This was 0.83m in diameter and 0.35m deep, and contained 3 large stones that appeared to be packing stones. Other possible postholes (70471, 70473, 70482, 70484, 70486, 70505, 70511, 70507, 70509, 70515, 70576, 70578, 70584, 70672,) were smaller at no more than 0.40m in diameter and 0.30m deep, although 70486 was 0.40m deep, and a few were no more than 0.1m deep. Most of these did not have packing stones and only their steep sided form suggests that they were postholes.

Larger features with no trace of packing stones may have been pits, such as 70488, 70513, 70574, and 70580. The last is larger than posthole 70452, at 0.9m in diameter, but the others are smaller and there is little difference between these and the probable postholes. Although smaller and only 0.08m deep feature 70562 contained some charcoal and heat-cracked stone and may have been a pit rather than a posthole. The stakeholes (70501, 70564, 70566, 70568, 70570, 70572, and 70593) varied in diameter from 0.06m to 0.12m and they are up to 0.18m deep. The first 5 form a close group and 70593 is some distance away and probably not a genuine stakehole.

The only finds were 2 flint flakes, but these support a prehistoric date for this group of features. Two radiocarbon dates of 1890–1690 cal BC (SUERC-81340) and 2020–1770 cal BC (SUERC-83270) were obtained from posthole 70452, indicating a Bronze Age date for these features, which appear to be the remains of a small structure. However, the plan of this structure cannot be clearly defined and more than one structure might be represented.

Settlement Activity (PRNs 31577, 31578, 31579 and 31580)

See figure 50 for general location and figures 53–56 for detailed plans and selected sections

The majority of features scattered across Area J have previously been given four separate PRNs and these will be used to describe the main concentrations of structural elements. However, similarities in the structures represented and the occasional fragment of Bronze Age pottery suggest that these may all be related to a single phase of occupation activity, possibly of Bronze Age date. This activity does not include any obvious dwellings but does include at least four structures that were probably granaries, as well as other less easily defined structures, so it seems probable that there was a dwelling in the area perhaps hinted at by an arc of stones as described below.

At SH 25787 80713 there were two adjacent four-post structures (PRN 31577) surrounded by other pits and postholes (figure 53). Postholes 70348, 70550, 70351, and 70555 formed the larger structure, nearly square in plan and measuring about 3.3m by 2.7m externally (plate 72). The postholes were about 0.5m in diameter and up to 0.29m deep.

To the west on a slightly different alignment were four smaller postholes (70558, 70598, 70608, and 70609) which also formed a square in plan, measuring 1.5 by 1.4m externally. These postholes were about 0.3m in diameter and 70558 and 70609 were 0.24m deep. However 70598 and 70608 were no more than 0.1m deep, presumably due to truncation. Near these features was a small pit or very truncated posthole (70604), no more than 0.08m deep and another less regular possible posthole 0.28m deep (70612) that may have contained the line formed by postholes 70608 and 70609.

To the north were another two possible structures, both small arcs of postholes. One was defined by postholes 70120, 70122, 70124, 70226, 70228 and stakeholes 70230. The other consisted of postholes 70156, 70169, 70188, 70247 and stakeholes 70190 and 70192. An outlining posthole (70249) may have been related. Postholes 70120, 70226 and 70228 all contained stones, which could be described as packing material. Of the postholes in the second structure, only 70156 had stones that could convincingly be described as packing material. Fragments of burnt clay (sf1883) and flint debitage (sf5795) were recovered from these features, but a tiny fragment of hammerstone (sf5700) can only be considered intrusive.

To the west of these possible structures was a large tree root hollow (70092), which contained some finds, including three flints, one with fine retouch (sf1679), a chert core fragment (sf1952) and an utilised pebble (sf2200). These finds must have originated from activity in the area. South-west of the tree hollow were several small features

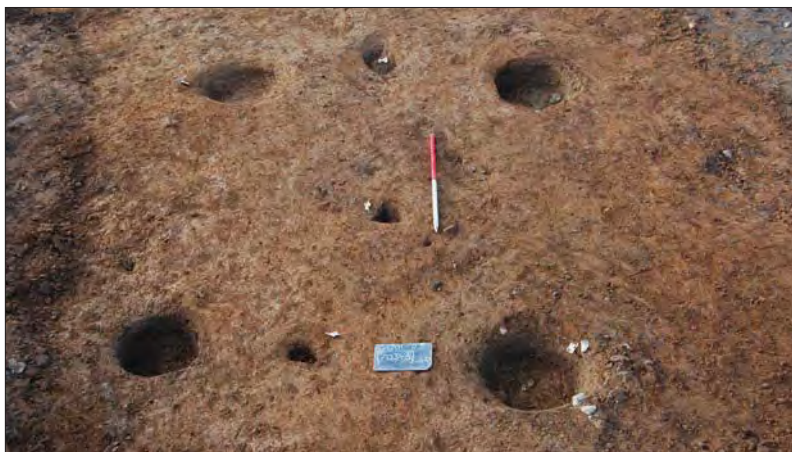


Plate 72. Four post structure in PRN 31577 (postholes 70348, 70550, 70351, and 70555)



Plate 73. Line of postholes (70060, 70062, 70068) in PRN 31578



Plate 74. Postholes 70033-70047 in PRN 31578

that might be either small pits or postholes (70635, 70637, 70642, 70590, 70627, 70498, 70469, 70462, 70467, 70480, and 70495).

Middle and Late Neolithic activity also occurred in this area as described above.

To the north was another possible structure, though poorly defined (PRN 31578, SH 25779 80726) (figure 54). Near the centre of a group of postholes was a slot containing a line of three postholes (70060, 70062, 70068) running north-north-east to south-south-west (plate 73), with a nearly parallel line of four postholes to the east (70084, 70091, 70086, 70161) and three postholes on a different alignment to the west (70113, 70111, 70109). Another feature, possibly a posthole (70115), lay just off the line of the central postholes. Other features possibly continue some of these lines. Most of the postholes were within the range of 0.30-0.44m in diameter and 0.07-0.22m deep, with the stakeholes being between 0.10-0.13m in diameter and 0.09-0.13m in depth. Some of the pits were up to 0.9m in length, but no more than 0.2m deep. Only features 70062 and 70068 produced finds, namely chert debitage (sf1834 and sf4054).

Just to the north-west of this concentration of features was a larger sub-circular pit (70064) measuring 1.0m by 0.84m and 0.24m deep. This contained a few fragments of pottery with a rather vesicular fabric making them appear similar to Early Neolithic ware. To the north was a collection of post and stakeholes (70033-70047) (plate 74). These were disturbed by animal burrowing but some at least seem to have been genuine features, supported by the find of a single chert chip. Other features in this area seem to have been root hollows and other natural hollows.

Close to the base of the bedrock escarpment was another four-post structure and a 6-post structure (PRN 31579, SH 25806 80715) (figure 55, plate 75). The 6-post structure was defined by two parallel lines of three postholes each (70303, 70307 and 70304; 70290, 70292 and 70294). The postholes ranged between 0.23m-0.44m in diameter, 0.09m-0.39m in depth, with the eastern postholes generally being slightly deeper than the western ones. All were filled with and orange or grey-brown silt and 70290, 70292, 70304 and 70307 had convincing packing stones.

Just north was another group of four postholes (70285, 70311, 70287, and 70313). These were slightly offset from the 6 postholes and probably represent a separate structure following a similar alignment. These postholes were similar in size to the group of 6, being up to 0.3m in diameter. Feature 70311 was 0.21m deep but the rest were very shallow and probably heavily truncated and were no more than 0.13m deep.

The six post structure measured 2.4m by 2.2m externally, whereas the four post structure measured 2.2m by 2.0m.

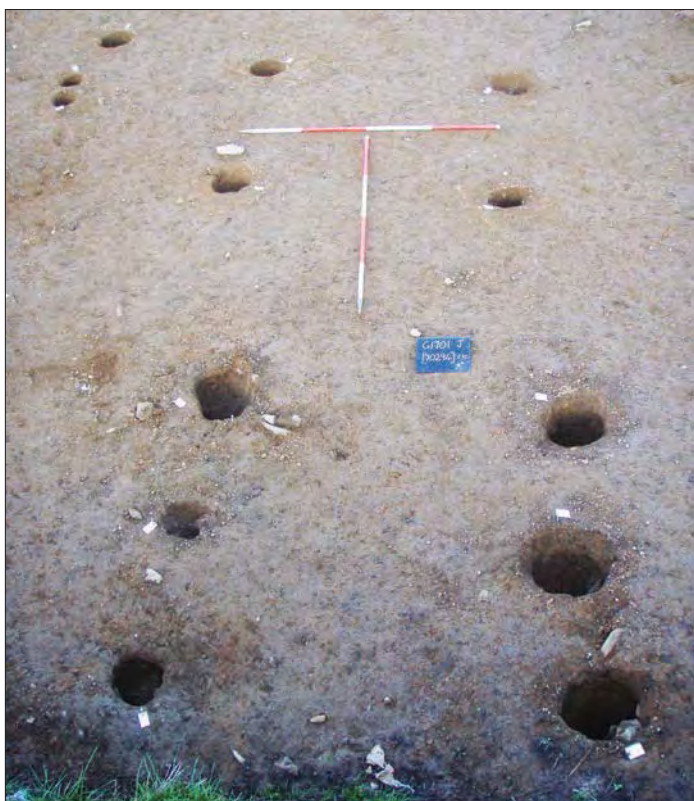


Plate 75. Four and six post structures in PRN 31579

To the east and nearly parallel with the six post structure were two more possible postholes (70265, 70263), 0.18m deep, and to the west of the four-poster there were three small pits or postholes (70283, 70297, 70299), up to 0.22m deep, forming another roughly parallel line.

Finds were generally quite scarce and there was no charcoal in any of the features in this area. The small posthole 70297 contained fragments of burnt bone, a flint (sf5790) and fragments of probably Early Neolithic pottery (sf1991, sf5949). Flint flakes were found in 70303 (sf4049) and 70294 (sf1941) and a blue glass chip (sf4153). The latter might be intrusive but it might indicate an Iron Age date for this structure. The deep blue glass is typical of a number of bead types in use in the Late Iron Age and Roman period and of vessel glass of the mid first century. However, the state of preservation means that it is impossible to be sure whether the chip came from a vessel or a bead, though the latter might be more probable (Cool, vol II part IV).

Further north the features were more dispersed over a fairly level plateau (PRN 31580), centred on SH 25794 80740 (figure 56). An arc of stones (70196) was investigated in some detail during the excavation but the majority of the stones proved to be embedded in the natural loess and it seemed not to be anthropogenic. Most of the potential features in the area also proved to be natural hollows or tree root holes. Feature 70202 seems to have been three conjoined postholes, defined by disturbed packing stones, with a smaller posthole (70215) next to them. There was a chert flake (sf1838) and fragment of pot recovered from feature 70202. The pot (sf1878) resembled Fengate Ware, but may have been residual from the Neolithic activity elsewhere in this area. A small number of flint and chert pieces from this area suggests some activity, but hardly suggestive of the focus of occupation.

To the north was a complex of features some of which seem to have been animal burrows but these were cut by genuine pits, one of which (70054) contained fragments of pottery (sf1703, 1899, 4030), flint and chert flakes (sf1841, 1884, 4029) and oak charcoal. At least one rim sherd (sf1703) can be fairly identified as Bronze Age. An adjacent elongated pit (70126) also contained a sherd of Late Bronze Age pottery (sf1812) along with lithics (sf1890, 1997, 4373), and a small pit cutting this (70128) contained undiagnostic pot fragments and flint and chert flakes.

To the east of this were seven possible postholes (70174, 70138, 70140, 70136, 70144, 70134, and 70176). These were heavily truncated but 70138 contained a chert flake and they could have been part of a structure.

Dating

Dating the features in Area J proved difficult due to a lack of suitable datable material, as well as a scarcity of finds.

A prehistoric date might be suggested for posthole group PRN 31576 from a degraded prehistoric pot sherd and two knapped chert flakes within two of the postholes. However it is possible that these are residual and do not date the features. The proximity of the Food Vessel sherd may also be coincidental, and these postholes might be better interpreted as supporting an agricultural structure of Roman date at the edge of a Roman period field. The absence of charred remains from the postholes means that their date could not be established by radiocarbon dating and must remain unknown.

Posthole group PRN 31581 did produce datable material and posthole 70452 produced dates of 1890-1690 cal BC (SUERC-81340) and 2020-1770 cal BC (SUERC-83270), suggesting an Early Bronze Age date for this possible structure.

The extensive scatter of features forming PRNs 31577, 31578, 31579 and 31580 and indicating settlement activity proved to be difficult to date as they produced little datable material. One pit (70054) contained two sherds of pottery, one a rim sherd, as well as other fragments. The sherds are Middle Bronze Age pottery and this date is supported by two radiocarbon dates from the same pit (1450-1300 cal BC (SUERC-81339) and 1400-1210 cal BC (SUERC-83269)). A nearby feature (70202) contained a sherd of Fengate Ware but produced Late Mesolithic and very Early Neolithic radiocarbon dates (4330-4070 cal BC (SUERC-81338) and 3970-3800 cal BC (SUERC-83268), showing considerable mixing. It is possible that the Fengate Ware sherd provides the actual date for the feature in the Middle Neolithic but the degree of mixing suggests considerable disturbance, probably by animal burrowing, and the sherd could have been introduced from activity on the ground surface. Posthole 70062 in PRN 31578 also produced disparate dates of 4350-4250 cal BC (SUERC-87066) and 6640-6500 cal BC (SUERC-87067). The similarity of the two Late Mesolithic dates (SUERC-81338 and SUERC-87066) may indicate activity of this date. The two dated features were only 19m apart, so possibly hinting at a focus in this part of the site. It is tempting to see the lines of posts in PRN 31578 as the remains of a small Mesolithic structure. If so it would be the first identified in north-west Wales. Two disparate dates are not enough to demonstrate this, but the only finds from these features were a couple of chert chips, so there is nothing to contradict a Mesolithic date, and this must remain a possibility.

Interpretation

There was clearly extensive occupation in this area but it is hard to identify a dwelling. Posthole groups PRN 31576 and 31581 probably represented small structures but they were some distance from the main area of activity. There were some definite structures, the clearest being four and six post structures; other pairs of postholes and lines of stakeholes may also indicate other slighter structures or supports. Even single postholes may indicate a post around which a haystack was heaped. Although the structures were not all parallel a general similarity of alignment and scale suggests that many of these postholes were contemporary and part of the same phase of activity. They are suggestive of an area of agricultural storage, at least during the Iron Age usually found within or immediately adjacent to settlements.

Six and four post structures are often interpreted as granaries, but an alternative to be considered is that they could represent the porches of roundhouses. At Meyllteyrn Uchaf, Botwnnog Bronze Age clay-walled roundhouses were excavated (Ward and Smith 2001, 14-38). Here one house had a porch defined by a 6-post structure (with some additional posts, possibly replacements) and the two others had pairs of posts marking the entrance. However, the Meyllteyrn Uchaf houses had internal wall slots, one had an external drip gully, and no such features were seen at Parc Cybi. Nor were features, such as pits, grouped near the potential entrance features in a way to suggest the presence of houses. Small structures such as granaries are, therefore, the most likely interpretation of the four and six post features.

Later clay-walled roundhouses did not necessarily need posts supporting an entrance structure and it is possible that one or more clay-walled roundhouses were present but that they had no negative features, and all trace of the clay wall and any hearth has been ploughed away, making them invisible archaeologically. The position of the arc of stones (70196) in relation to the four and six-post structures made it tempting to see this as a stony base for a clay-walled roundhouse. However as most of the stones were embedded in the natural silts these seemed to be of entirely natural origin. In addition, more finds might have been expected in this area if it had been the focus of settlement. Certainly if the 4 and 6 post structures were granaries it is unlikely that they would have

been located at any distance from a settlement, but it must be concluded that any associated house did not leave archaeologically visible remains.

Four post structures are typical of Iron Age settlements, such as Moel y Gaer, Rhosesmor, Flintshire (Guilbert 1976) and similar structures were excavated in the main settlement in Areas B2 and F1, but they can also be found on Bronze Age settlement sites. On Anglesey the dating of six and four post structures to the Bronze Age is supported by eight post and four post structures that have recently been excavated at Newborough in association with Bronze Age pottery (Evans and Roberts 2018). Bronze Age four and six post structures have been found in England. A six post structure from Ham Hill, Somerset contained Late Bronze Age pottery (Brittain 2013, 16). This structure was quite isolated with no visible Late Bronze Age settlement near it. Up to 34 four and six post structures were found associated with two areas of Late Bronze Age settlement at Reading Business Park (Moore and Jennings 1992, 27, 39). Four-post structures were also associated with a Late Bronze Age settlement at Huntsman's Quarry, Kemerton, Worcestershire (Jackson 2005, 37, 41). Two four-post structures were also found associated with a Late Bronze Age settlement at Adanac Park, Nursling, Hampshire, and one four-poster produced an early first millennium BC date (Leivers and Gibson 2011, 4, 24).

Dating this activity in Area J is difficult. There was little datable material recorded from the features so radiocarbon dating was not possible for much of the area. Pit 70054, which produced probable Bronze Age pottery, also produced Middle Bronze Age radiocarbon dates, so some of the activity was Bronze Age. However this dated pit lay a considerable distance from the granaries. These structures are more common in Iron Age than Bronze Age contexts and the scarcity of artefacts, perhaps, also indicates an Iron Age date.

The location of this activity, sheltered by the rocky escarpment from south-westerly winds and overlooking the marsh in Area K6, would seem to be a good location for settlement and it was probably used over a long period. The presence of Middle and Late Neolithic pits in this area shows activity at that period. There are also traces of Early Neolithic pottery perhaps hinting at earlier activity, and there was possibly Mesolithic activity and even a small structure. The features must therefore be seen as originating from several periods, but the presence of the four and six post structures does hint at a Bronze Age or Iron Age phase of activity, with the few dates obtained supporting a Bronze Age date. It is therefore suggested that the majority of features in Area J did belong to a settlement associated with these structures, but that remains of domestic dwellings have not survived. The presence of some Bronze Age dates and occasional fragments of Bronze Age pottery but no Iron Age dates inclines the author to suggest that this settlement was Bronze Age in date. However the dates are varied, with suggestions of both Early and Middle Bronze Age activity, and the scarcity of datable material means that Iron Age activity could be easily missed. It is probably best to assume that there was not one phase of settlement here but repeated activity at different periods and possibly of different scales.

Pits in H/IB cable trench (PRN 31575)

See figure 7 for general location and figure 57 for a more detailed location plan and plan of the features

The date of these features is not known, however they are described here as they are most probably of prehistoric date.

The western end of a cable trench running to the north of the northern boundary of Area H4 revealed a group of pits (group 50341). These were on high ground at the foot of a rocky outcrop (SH 25448 80375) (figure 57). The four features (50334, 50336, 50338 and 50340) were on average about 0.6m in diameter and up to 0.55m deep. Their fills were of grey-brown silt with occasional stones but no finds were recovered. Feature 50336 was more rectangular in plan than the others were, although part was obscured under the baulk, and it contained two large stones resting on edge against the cut sides. It is likely that this feature was a large posthole rather than a pit. None of the features contained any charred plant remains so radiocarbon dating is not a possibility. The date of these features is therefore never likely to be determined. The lack of finds suggests that they were not the same as the other pit groups, but their tight cluster and prominent place in the landscape is similar. If feature 50336 was a posthole then it suggests further structural evidence beyond the limits of the trench and this may be an indication of much more extensive archaeology preserved in this location.

It is assumed that these features are prehistoric in date but without dating evidence further excavation would be required to determine their context and date.



Plate 76. Conditions of excavation in Area B2 with archaeologists separated from an active haul road (photograph by David Longley)



Plate 77. Roundhouse settlement under excavation (photograph by David Longley)

Iron Age

Roundhouse Settlement, Areas B2 and F1 (PRN 14599)

Introduction

In the middle of the development site, between Lôn Trefignath and an area of marsh (centred on SH 25555 80775), was an extensive zone of archaeological activity (plate 76) covering site sub-areas referred to as B2 and F1. The size and complexity of the remains required a high level of input, and a significant concentration of effort and resources on this site. The majority of the activity consisted of a long-lived Iron Age settlement with stone-built roundhouses and numerous ancillary structures, but there were a small number of earlier features and many later ones (figure 58, plate 77).

The depth of the stratigraphy has allowed for detailed phasing within and between the roundhouses, although there were often no stratigraphic relationships with the outlying structures and some of the phasing relies on logical argument and, where possible, radiocarbon dates. The process of closely inspecting the evidence has resulted in a reassessment of some of the interpretations reached in the field, and even during the assessment of potential process. The text below is not divided into description and interpretation as in other sections of this report because the archaeology is too complex to make sense without considerable interpretation. The archaeology will therefore be discussed by phase. The pre-settlement phase will be included here but later activity over this area is included in the chapter on post-medieval archaeology.

Natural substrate

Most of Areas B2 and F1 were underlain by boulder clay. This was generally mottled in pale yellow and grey and quite stony. The boulder clay (93623) closer to the marsh generally contained more clay than the yellowish sandy clay (93624) further away. Places near the marsh were underlain by shattered stone, apparently regolith. Elsewhere the stone in the boulder clay seems to have migrated to the surface and been sorted by frost action. The stony layer (93622) produced by this process was restricted to the edge of the marsh and was only exposed and inspected in detail in sondages but the overall limits were surveyed (figure 59, plate 78). The deposit was composed of mainly angular schist pieces with rare rounded cobbles. Some of the slabs were up to 0.5m in length. Many of the stones lay at random angles and others lay flat on the surface (plate 79) but there were no coherent patterns and the edges of apparent features were very diffuse. Some stones were embedded in the firm blue-grey silty clay (93623), but others had been raised up into a peaty deposit (93620) above or had voids between the



Plate 78. Stone deposit 93624 exposed at marsh edge and seen in section



Plate 79. Stone layer 93624

stones with little matrix (figure 60). The latter stones tended to be concentrated in linear hollows. This pattern of linear hollows and stones being lifted to the surface of the layer suggests frost sorting. This can cause stones to be moved upwards often standing flat slabs on end and eventually when these penetrate the surface they collapse over and lay horizontally. Frost action works to sort stones by size with the larger stones moving towards the surface or into hollows or fissures caused also by frost action in the underlying clay. Frost sorting on this scale is indicative of peri-glacial conditions at the end of the last Ice Age (Ballantyne and Harris 1994).

Topography and the marsh

The location of human activity in this part of the site seems to have been heavily influenced by the natural topography. The south-west to north-east alignment of the topography is strongly defined here with a rocky outcrop running on this alignment with a parallel linear basin at its foot to the north. The focus of settlement was close to the northern margin of the north-eastern end of this basin (figure 7). To the south-west of the settlement area was a rounded hillock c. 3.5m high with a similar knoll (c. 4m high) to the north-east. The settlement area was further sheltered by a slight rise in the ground to the north-west.

The linear basin is currently a well-established valley marsh, into which, until recently, drained a mid-19th century culvert (see below). A series of test pits dug in 2006 (J. A. Roberts 2006) and 2007 (Jones Brothers pers com), and 10 core samples taken by Birmingham Archaeo-Environmental in August 2007 established approximately the area and depth of the peat within Areas F and G (plate 80). Two trenches dug for the archaeological evaluation phase (trenches 20 and 21) also helped to define the edge of the marsh in Area G (Davidson and Roberts 2004).

The investigations revealed a maximum depth of over 4m of peat and fine organic mud (gyttja) over a grey silty clay. The clay was deposited when the basin was an open lake and the gyttja represents more organic freshwater deposits. The peat was the result of this small lake filling in and becoming a marsh. The peat depth varies and the sides of the basin seem to be very steep in places, however, the peat is consistently shallower towards the south-western end of the marsh.

One of the cores was selected for pollen analysis by Birmingham Archaeo-Environmental and the results of the palaeoenvironmental assessment indicated that peat accumulation might have started from about 11,000 BC, towards the end of the glacial period. The pollen sequence traces the development of woodland dominated by hazel and willow but the sequence ends in the early Holocene (Mesolithic period) implying that the mid-late Holocene peat deposits had been removed by peat cutting (Gearey *et al* volume 3, part XX). Evaluation trenches dug into the northern margin of the marsh revealed deposits of bark and twigs mixed with peat (93358 and 93468) (figure 59, plates 81 and 82). A radiocarbon date on this bark of 8230–7820 cal BC (KIA40119) suggested a Mesolithic date for the surviving marsh edge deposits.

The basin was therefore never open water during human activity in the area, but a peat marsh similar to what appears today. However it seems to have suffered from regular flooding. Water-borne deposits of gleyed sands and silts were found extending from the north-eastern end of the basin and flooding continued into the life of the settlement as will be described below. Loose dark brown and grey sands and gravels and grey silts up to 0.4m



Plate 80. Birmingham Archaeo-Environmental taking cores in the marsh in Area G



Plate 81. Bark deposit 93468 in the edge of the marsh

Plate 82. Detail of bark deposit 93468



Plate 83. Lower part of section through marsh edge deposits showing peaty layer



Plate 84. Upper part of section through marsh edge deposits showing peaty layer continuing onto dryland

deep (90178/90179, 90189 and 18177) indicate a shallow channel under what was to be the northern part of the settlement. This probably drained water into the marsh at a fairly early period.

Overlying the glacial deposits a soil had developed, which was preserved as a buried horizon across much of the site. Generally this was seen as a firm grey or grey brown silty clay between 0.05-0.20m in depth (e.g. 91084, 91192). Occasionally considerable quantities of charcoal fragments had been introduced to the soil, probably by bioturbation. Examples of this were layer 91327 under the cobbled yard and layer 92578 under wall 92016 that pre-dated roundhouse C, which contained bone and teeth fragments. Artefacts had also sometimes been trodden or worked into this soil horizon (e.g. a bone and a whetstone from 91573, and an amber bead and a whetstone from 92129).

Towards the edge of the marsh this clayey layer merged into a thin peaty deposit (e.g. 93394 and 93620) (figure 59). This was nearly continuous in Area F1 adjacent to the marsh but also continued into Area B2 immediately north of the marsh. This deposit was a friable dark brown silt with a well-developed crumb structure and few stones. It had a high organic content, resembling compressed peat, and was up to 0.2m deep, but usually much shallower. This deposit became deeper and peatier as it sloped into the marsh basin, where it overlay the bark deposits (plates 83 and 84).

A pollen assessment of a monolith sample bracketing the bark layer and the peat above indicated a phase of early Holocene vegetation development, supporting the radiocarbon date of 8230–7820 cal BC (KIA-40119) on the bark layer. The landscape was initially dominated by hazel scrub; with some willow carr on the damper soils and sedges and ferns in the damper and shadier habitats. The hazel scrub was replaced by oak and alder woodlands as the climate continued to ameliorate during the Holocene. The low values for herbs suggests that the woodland was fairly dense, but there is an indication that heather spread onto the drier contexts on the wetland itself later in the sequence. It is highly likely that this sequence has been truncated by peat cutting with the top of the diagram indicating an early Holocene landscape, and no later periods being represented. This suggests that the marsh may no longer preserve debris from the roundhouse settlement, as much of this may have been lost in peat cutting.

Soil samples were taken for pollen analysis from the peaty soil (93394) overlying the marsh deposits. Analysis indicated a closed mixed woodland environment with limited evidence for open or disturbed areas in the near vicinity of the sampling site, except for some sedges next to the marsh itself. The homogeneous character of the pollen spectra in these samples was probably due to bioturbation within soil profiles and shows that this was an active soil horizon, supporting the interpretation of this layer as the peaty 'A' horizon of a buried soil. This layer at the edge of the marsh, and therefore not subjected to peat cutting, appears to have been Bronze Age in date. Charcoal from a deposit (93466/93628) sealed beneath this peaty layer produced radiocarbon dates of 1970–1760 cal BC (KIA40120) and 2470–2210 cal BC (SUERC-83305) suggesting that 93394 began to develop after this period. The pollen evidence therefore suggests that the local landscape at least remained wooded into the Bronze Age, with very little evidence for anthropogenic disturbance to the vegetation.

The deposit (93466/93628) that produced the sample for radiocarbon dating varied from the majority of this horizon. It was a loose dark grey silty sand mixed with the dark brown peaty deposit from above with numerous small stones including quartz fragments. Many of the stones were heat reddened and the quartz was shattered by heat. The sand suggests an alluvial deposit, but the heat shattered stones and charcoal in the peat layer above show that there was a fire in this location. The peat itself showed little signs of burning and there was no trace of a hearth. It is likely that vegetation on the edge of the marsh was burnt. This seems to have produced enough heat to crack some of the stones in the natural deposit below. Quartz pebbles are present across the site and they may only be particularly noticeable in this deposit because the heat cracked faces appear very white. The charcoal may have originated from a brushwood fire either caused by a lightning strike or lit by people during low intensity use of the area.

Table 7. Details of radiocarbon dates from the buried soil and marsh edge in Area F1

Lab number	Material	Date BP	Calibrated date BC (95.4% probability)
KIA40119	Bark (probably birch)	8865 ± 42	8221 - 7827
KIA40120	wood charcoal	3543 ± 31	1963 - 1768
SUERC-83305	Charcoal: Hazel	3868 ± 29	2465-2211

Pre-settlement Activity (phase I)

See figure 61

Introduction

During excavation it was clear that some ditches underlay deposits relating to the roundhouse settlement but much of the early activity was not evident until radiocarbon dates were obtained. A hearth and group of postholes and other features were found inside the area of roundhouse A. Some were sealed under a later floor layer of the roundhouse but others had no direct stratigraphic relationship to those deposits clearly belonging to the roundhouse. However their location within the house made it natural to assume that they belonged to early activity associated with the occupation of the house, but radiocarbon dates from the hearth showed that some, if not all of this activity was very late Neolithic in date.

Even more significant to the interpretation of the site was the reassessment of a stone platform under roundhouses A and E that resulted from a coherent suite of radiocarbon dates. The stone platform corresponded largely to the location of the roundhouses and a similar platform under roundhouse B accurately reflected the probable wall line and must have been a foundation for that building. It was therefore assumed that the stone platform was constructed as a foundation for the settlement. This assumption was supported by the voided nature of the stone deposit, as it was considered that the voids would not have survived unless the roundhouses were immediately built on top. The dating results showed that this platform and activity on top of it dated from the Early Iron Age, several centuries before the settlement was built. This has led to a reinterpretation and it is now suggested that the stone platform under roundhouses A and E was built for a much earlier building and reused by the later settlement. The form and function of that earlier building must remain largely speculative as almost no traces of the building itself survived but sufficient radiocarbon dates have been obtained for its date to be fairly securely established.

Many of the features that have been allocated to the pre-settlement phase are undated and/or not securely stratified. Some features within roundhouse A could have belonged to the Late Neolithic or Early Iron Age activity or indeed possibly to the roundhouse itself. Other features on the edge of the settlement are assumed to be early because of their spatial relationships but could be later. All pre-settlement features are therefore included in phase I, though the discussion will attempt to separate activity of different periods.

Late Neolithic Activity (PRN 74830)

An area of sandy clay (90638) was found in the eastern part of roundhouse A (see inset on figure 61). This was rich in charcoal and burnt stone, with some burnt clay, and was cut by numerous postholes. It is presumed to have been a patch of flooring heavily mixed with occupation debris, and patches of charcoal (90824) probably indicated hearths on its surface. Dates of 2460–2200 cal BC (SUERC-81377) and 2470–2230 cal BC (SUERC-87582) were obtained from the floor 90638 and 2480–2340 cal BC (SUERC-87076) from the charcoal patch 90824. These demonstrate a very late Neolithic or Beaker period date for this activity.

The floor or hearth 90638 contained considerable quantities of charcoal (over 10,000 fragments on one sample), most of which was oak with some pieces of hazel. It is suggested that oak was selected as firewood, with hazel representing the kindling (McKenna, volume 3, part XIX.3).

There were many features cutting floor 90638 and a few sealed under it. It is assumed that all the features directly related to this floor were also Late Neolithic or Beaker period in date.

Pit 90723, measuring 0.9m by 0.65m and 0.14m deep, cut through the floor. It was filled with charcoal and burnt stone, including a heat shattered rubbing stone (sf 5482). The floor was also cut by postholes 90591, 90640, 90710, 90731, 90819, 90821, 90836 and 90880. These varied between 0.22m and 0.56m in diameter and up to 0.37m deep. Other small postholes lay just beyond the floor surface (90699, 90773, 90798, and 90862), while a double posthole (90941/90943) and 90933 seemed to be sealed under the floor. Two larger postholes (90928 and 90930), up to 0.56m in diameter and 0.31m deep, were on the northern edge of the floor and contained some large stones.

Posthole 90647 measured 0.7m in diameter and 0.37m deep, with a flat stone as a postpad in its base. Posthole 90591, which was 0.48m in diameter and 0.34m deep, also had a postpad, and these two postholes possibly formed a pair. However another posthole (91306) was on the same alignment as these and this also had flat stones in the base. In this case there were two stones on top of each other, possibly to raise up the base of the post. To the south-east was another group of postholes (90756, 90788, 92021, and 92023), which were up to 0.56m in diameter and 0.38m deep. There were also two smaller post or stakeholes in this area (90906 and 92017). These were found after the stone platform deposits under roundhouse A had been removed. Like some of the other larger postholes

92021 had stones for a postpad in its base. Posthole 90788 was cut by two later postholes (90784 and 90786), which may have replaced it. The larger postholes were laid out to form an approximate rectangle about 5.0m long and 3.5m wide, that can be proposed as being a small building (figure 61 inset). The posts suggested by the postholes would certainly be substantial enough to support a building of this size and it would not be out of place compared to other Late Neolithic structures.

While the dates suggest that this might be considered to be Beaker period activity there were no Beaker sherds found anywhere in this area, however very occasional sherds of Grooved Ware were found in the roundhouse settlement. A single base sherd (sf 4070) came from the cobbled surface west of roundhouse E, and an incurved rim (sf801) was found on a stone surface outside granary 93004 to the west of roundhouse B. These sherds were residual in the contexts in which they were found but a small sherd and other fragments (sf4316) came from a deposit below roundhouse C. This deposit (92550) was probably from activity on the old ground surface sealed by roundhouse C and the pottery may have been largely *in situ*. It is probable that these sherds originated from the occupation site described above or other contemporary activity and it can perhaps be assumed that this occupation was culturally Late Neolithic rather than Beaker.

Late Bronze Age/Early Iron Age Activity

Ditches

The dates from burning on the buried ground surface next to the marsh showed that there was activity in the area in the Early Bronze Age, although the lack of finds on the investigated surface and the pollen record suggest that human activity at this period was not intensive. However other features that pre-dated the roundhouse settlement may belong to the Bronze Age, although very few could be firmly dated by either finds or stratigraphy.

To the south-west of the main settlement was a ditch (92615), c.17m in length, which ran north-north-west to south-south-east and curved to the south-west at its southern end, where it was cut away by a large modern pit (94014) (figures 61 and 62.1). Towards the base of this ditch was found a small ring (sf 784) made of sheet gold (volume 3, part X, fig. X.1). Metallurgical and stylistic analysis could not date the ring precisely and it could date to either the later Middle Bronze Age or Early Late Bronze Age (1300-1000 BC) or to the Late Bronze Age (1000-800 BC). The function and associations of the ditch are unclear but it cut a semi-circular gully (92652) at its northern end and a large shallow pit (92742) at its southern end. The gully was 0.45m wide and no more than 0.20m deep. The pit was oval in plan, measured 4.0m by 2.5m and was 0.2m deep. Pit 92742 contained a series of thin fills including grey silt and orange clay. The latter resembled a clay floor layer but a similar sequence might be expected in a tree-throw hole and this is suggested as the most likely interpretation of this feature. A nearby oval stone-filled pit (92761) could also be an early tree throw hole although it is very regular in shape. It could alternatively be related to a later collection of postholes, although it was cut by one of these postholes. A more irregular feature in this area (92810) was almost certainly just a variation in the natural.

It was thought during the excavation that the settlement was partially enclosed by a ditch (91445/92799) and wall (90120/90222) but stone surfaces relating to the earliest building phases of the settlement overlay the ditch and the wall is now argued to be a late feature (see below). The shallowness of the ditch at its northern end also suggests truncation by the settlement. The ditch, therefore, fits in the pre-settlement phase, while the wall was much later.

The ditch, at least 75m long, ran gradually downhill from north-east to south-west along a slightly sinuous course. At its northern end it was investigated as 91445 and was about 1.7m wide and no more than 0.2m deep. Its southern part was recorded as 92799 and while about the same width it was up to 0.37m deep. The fills varied



Plate 85. Culvert 90522 (on right) cutting ditch 92799

but were generally greyish water-borne silts, sands and gravels. The ditch had been partially cut away by a later culvert (90522) (figures 61 and 62.2), which followed the ditch's line so closely that there must have been a linear hollow or wet ground to indicate its presence (plate 85). The later culvert curved more than the earlier ditch so in places the latter was left undisturbed, while elsewhere, particularly at the ends the exact line of the early ditch could not be established. At its southern end it is likely that the early ditch continued on the line followed by the culvert and emptied out into the marsh. The northern end of the ditch was cut away by the culvert.

Ditch 91445 was sealed under the stone spreads of the passageway to roundhouse A and the main wall dividing the settlement (90010) was built over the infilled ditch (figure 62.3). At its southern end it may have underlain part of structure H.

Another ditch (91783) ran north-north-east to south-south-west just to the east of 91445 (figures 61 and 62.4). It was about 2m wide and no more than 0.2m deep and was traced for about 17m. At its northern end it faded out and its relationship with 91445 was not clear but in plan it did appear that 91445 cut 91783. At the southern end there was no evidence of it under roundhouse C, so it seems to have faded out at this end as well. A slighter channel (92618) ran on almost the same alignment under roundhouse B. This channel was more irregular and no more than 0.1m deep. Its stratigraphic relationships show that it clearly pre-dated the settlement. Both 91783 and 91445 underlay the earliest of the stone surfaces associated with roundhouse E. Features 91783 and 92618 could possibly be explained as natural channels underlying the archaeology, however ditch 91445/92799 cannot be so explained as it cut buried soil deposits, such as 92774, which was fairly deep and mixed, and probably representing an early ploughsoil.

The ditch (91445/92799) produced a significant number of tooth fragments. Many of these were unidentifiable but several were from cattle, one from sheep or goat and 4 fragments of pig tooth; 3 of the latter being from sub-adults or juveniles. Ditch (91783) also produced numerous fragments of cattle-sized teeth. It is probable that these teeth were originally accompanied by jaw bones and possibly other bones, but only the teeth have survived. Unfortunately they had not survived well enough to provide sufficient collagen for dating, as attempts to date this material failed. The bones were associated with a small number of flint and chert flakes, but no chronologically diagnostic artefacts.

Other features may be related to this early phase but proving this is difficult and relies heavily on the phasing of the ditch 91445/92799. The north-west side of the culvert 90522 was an area of stone (92807). Around the edge of this were some larger stones (92806) possibly indicating the remains of a rough wall. The stone was deliberately deposited and in places quite carefully laid so at least some kind of rough surface might have been intended. The culvert had removed most of ditch 92799 here but enough of the north-east side remained to suggest that the ditch cut the stone surface. Alternatively it is possible that the surface ended exactly on the edge of the ditch and that both were essentially contemporary. The character of 92806/7 is similar to features belonging to the main settlement phase and it is possible that this structure belonged to that phase, with perhaps part of the ditch reused during the life of the settlement.

Immediately to the west was a group of postholes (92735, 92736, 92737, 92755, 92762, 92764, and 92766). These were between 0.5 and 0.8m in diameter and c.0.3m deep, although some were truncated. The postholes contained substantial stones, presumably post packing and could have held substantial posts. Five of the postholes formed a rough arc, but they could represent three sets of two-post structures. Their relationship to structure 92806/7 cannot be proved but they were cut from about the same level that the stone features were built on. A scatter of flints in this area may support a Bronze Age date for this activity though they were not very diagnostic.

A semi-circular gully (93012) that lay close to the edge of the marsh might be included in this phase purely for its similarity with 92652. This was slightly more substantial at 0.9m wide and 0.25m deep but this was probably due to better preservation. An oval pit (93031) seemed to continue its north-western end and a small pit (93014) inside the arc to the north may also have been related. There was no dating evidence for any of these features.

The stone platform

Figure 61

It was clear during the excavation that the roundhouse settlement was built on a layer of stones, amounting in places to a stone platform. As this largely coincided with the roundhouses it appeared to have been built specifically for them and was interpreted as such until radiocarbon dates showed that burning and activity on

this platform dated to the Early Iron Age, significantly pre-dating the roundhouse settlement. On receipt of the dating results the stone layers have been reassessed but defining which belonged to this early phase and which to the later settlement is not always straight forward, especially as the difference was not perceived as significant during excavation. Layers of stone on stone to the west of roundhouses A and E have been particularly difficult to untangle and the limits of the earlier deposits in this area were not precisely defined.

Under roundhouse E was a deposit of loose rubble mainly composed of small and medium sized angular stones (91906, 91694, and 91997) (plates 86 and 87). In the middle the deposit was 0.4m deep, and it was distinctive because the stones were loose with voids between. The small quantities of silt matrix were black with charcoal, and the stones themselves were blackened. The wall forming the northern side of roundhouse E (90539) was as much embedded in the vacuous rubble layer as lying on it, presumably because a rough foundation cut had been made into the rubble.

On the south-western side this stone platform was revetted and entirely contained by carefully stacked slabs up to 0.4m in length (91921) (plate 88). This revetment continued directly under the southern arc of the roundhouse wall with slabs and boulders up to 0.7m in length roughly laid in courses. The vacuous rubble extended to the west, beyond the limits of roundhouse E, where the revetment was continued by a line of large stones (91720/92575).

This revetted area under roundhouse E contained angular vacuous rubble, however further south this changed to more rounded stones (92396) extended further south to be supported by a very rough revetment of larger stones (92393). This rough revetment continued to the south-west as 91482 with stones 91451 to the north-west extending under the wall of roundhouse B. To the north-east of roundhouse E a rougher bank of stone (91200) seemed to continue the alignment of the revetment banks. This bank continued under roundhouse E and as there were silt deposits between it and the wall of the roundhouse, this bank seems to be part of this earlier phase.

Plate 86. Loose, voided stone rubble (91906) under roundhouse E

Plate 87. Section through stone rubble (91906) under roundhouse E

Plate 88. Revetment (91921) to platform under roundhouse E

To the north-west the same distinctive vacuous rubble deposit continued as 92541 and 92519 under where roundhouse C was later built and extended under the later wall (90010). Slabs and cobbles (92079, 92472) covering the loose rubble in this area to the west of roundhouse E seemed to create a courtyard for the roundhouse and were not part of the earlier platform. To the north of roundhouse E the vacuous rubble (here 91109) contained



Plate 86. Loose, voided stone rubble (91906) under roundhouse E



Plate 87. Section through stone rubble (91906) under roundhouse E



Plate 88. Revetment (91921) to platform under roundhouse E

some particularly large stones, but these became smaller as it continued north under where roundhouse A would be built. The description of these deposits was much the same as elsewhere with angular stones in a brown silt matrix but with many voids (90888, 91000, and 91008). The deposits reached 0.3m in depth but tailed off to the east, where they overlay a mixed layer of black and brown silt (91011) up to 0.2m deep. To the west and north-west of roundhouse A the stone layer continued but it became more compact with more silt between the stones. This stone layer (90573) extended north under structure D.

To the west of roundhouse A, where the area had been repeatedly resurfaced, the early platform was difficult to distinguish from the later deposits. However the lowest levels (e.g. 91447 and 91222) were a continuation of the stone layers under roundhouse E. Although not exposed properly in plan the sections suggest that this layer, as opposed to later ones, stopped at ditch 91783. It is likely that this ditch originally bounded the western limit of the stone spread, which here was generally thin.

The stone deposits under roundhouses E and A were loose and voided while those further west and north were compact and silt had filled the interstices between the stones. It was initially thought that this separated the foundation platform from courtyard layers of the roundhouse settlement, but as all these layers seem to be part of the early deposit the difference may be related to depth rather than difference in use. The consolidated deposits were fairly thin, while the voided ones were deeper, with more room for silt to fall through the stones and collect at the base of the deposit. It was thought that the voids would only survive if the stone platform was immediately built over but voids are often found between stones under turf and it is possible for soil to have developed over the stones without filling in the voids.

Most of the vacuous rubble under roundhouses A and E was blackened with black silt between the stones and charcoal present, mainly as fine fragments. This gave the impression of a large fire having been burnt directly on the stone platform. Sealing the stones and the evidence of burning in many places was a dark grey silty layer rarely more than 0.1m thick. Under roundhouse A this was recorded as 90947 and 90576, amongst other numbers and under roundhouse E as 92148 and 92156. This layer was rich in charcoal but produced almost no finds.

Under roundhouse A, where this was recorded as 90947, the layer was sampled for micromorphological analysis. The resulting report described it as compacted and so resembling an earthen floor but it also had characteristics of a disturbed soil horizon, in particular, the evidence for earthworm sorting suggests that there was a substantial phase when this was a soil horizon proper. It is suggested that this was an *in situ* soil layer that developed here for a short time, and was then compacted by trampling or by the floors of the roundhouses above. The charcoal may have originated from activity on this soil surface but it may have been introduced from the burning below by worm activity. The time taken for a soil to develop over the stone platform implies a considerable period between the construction of the stone platform and the building of the roundhouses. Further north an extensive layer of soil had developed over the stones, mainly recorded as 90473, on which structure D was built.

Charcoal in samples from the burning over the platform was mainly oak with a little willow/poplar also present. Similar proportions of the same species were also found in the soil horizon over the platform. The maximum size of fragments varied in different samples from 12mm to 20mm, with fragments being no larger than in samples from hearths and occupation deposits (McKenna, Volume 3, part XIX.3). A particularly charcoal-rich patch (92118) within the soil horizon over the stone platform produced large quantities of charred chaff, mainly cereal chaff stem fragments with smaller quantities of spikelet forks and glume bases, and a few indeterminate cereal grains and weed seeds (McKenna, Volume 3, part XIX.4). It is possible that this originated from burnt thatch, though if a whole thatch roof had burnt down this material would have been much more widely found within the soil horizon.

A small number of pits and postholes (90839, 91279, 91519, 91565, and 91567) were found under roundhouse A that cut the stone platform but were sealed under floor layers belonging to the roundhouse. These may have been associated with activity on the platform.

Radiocarbon dates were obtained from the soil/occupation layer on the platform. Contexts 90832 and 90576 from under roundhouse A produced dates of 820–590 cal BC (SUERC-83296) and 1020–890 cal BC (SUERC-87583), and context 92148 from under roundhouse E produced a date of 980–830 cal BC (SUERC-87086). The burning activity directly on the stone platform was dated by material from 91906 under roundhouse E and 90833 from under roundhouse A (810–590 cal BC (SUERC-84057) and 1050–910 cal BC (SUERC-87077). These dates were on hazel and willow/poplar charcoal, except for SUERC-87086, which was on charred cereal grain and chaff, itself suggestive that some occupation occurred on this ground surface.

The stratigraphy of the soil/occupation layer over the stone platform was clearly defined but the radiocarbon dates do not perfectly reflect that stratigraphy, particularly with SUERC-84057 from the platform being later than two of the dates on the soil/occupation layer. This result may be a statistical outlier or it may indicate some mixing between these layers. If all the dates are taken as indicating the same phase of activity the resulting model suggest that the activity began in *1310–920 cal BC (95% probability)*, and probably in *1080–945 cal BC (68% probability)*. This activity ended in *800–505 cal BC (95% probability)*, and probably in *790–690 cal BC (68% probability)*, and lasted for *145–700 years (95% probability)*, and probably for *180–400 years (68% probability)* (Hamilton, volume 3 part XXIV). This suggests that the activity started at the end of the Bronze Age and continued into the Early Iron Age. The long duration of use is probably largely the result of uncertainty due to the calibration curve for this period, and further dates might possibly improve the precision, but even the lower end of the range of duration suggests this activity lasted for about 200 years.

This suite of dates demonstrates that the burning on the platform and the occupation on the ground surface occurred in the very Late Bronze Age or Early Iron Age, much earlier than the dates on the roundhouse settlement discussed below. This was supported by soil micromorphological evidence, which demonstrated that the soil/occupation layer had developed over a fairly long duration. The later roundhouses therefore reused an existing feature as a useful level foundation.

Possible Flood Defences

Figures 61, 72.2 and 73

The stones forming the south-eastern edge of the platform (91482/92393) were haphazardly dumped rather than carefully constructed and were interleaved with silt deposits. Similar, but even more haphazardly laid lines of stones (91457, 91232, and 91235), were located to the south (plate 89). These rough lines of large stones did not seem to form any coherent structures and the stones were partially embedded in what appeared to be waterborne silts. There were no traces of foundation cuts so it appeared that the silts had built up around and between the



Plate 89. Possible flood defences. Feature 91232 runs from bottom left to top right

stones after the latter had been put in place. To the north-west of 91482/92393 were smaller stones (92396/91453) that merged with the platform under roundhouse E. Between 91482 and 91235 was an extensive area of stone (91455) (figure 72.2).

The upper, more yellow coloured silts overlying the lines of stones seemed similar to silt layers that also overlay parts of the platform. These deposits were interpreted during the excavation as being probably the result of flooding. However where soil micromorphological analysis was carried out on these supposed flooding deposits to the south-east of the roundhouse settlement it was determined that while they were generally clay-rich and contained occasional diatoms indicating that they may have had an alluvial origin they were heavily disturbed by soil forming processes. They may therefore have originated from a flooding event but developed into an active A horizon of a soil and some of the variations within these deposits may have been due to soil forming processes rather than several layers of flooding. The proximity of the marsh does indicate a risk of flooding when the water table was high and it is likely that the deposits did originate from flooding events early in the history of the site.

It is suggested that the dumps and rough lines of stones were put in place to protect the stone platform from flooding. However these dumps and lines of stone are far from being understood and other explanations might be put forward to explain them.

Reassessment of Wall 90120/90222

In the assessment of potential report a wall (90120/90222) running north-west to south-east along the north-eastern side of the roundhouse settlement was included in phase I. This was due to the stratigraphic evidence as recorded on site, but this wall was problematic as an early feature, has been completely reassessed, and must be removed from this early phase.

The wall was very straight, unusually so for a prehistoric feature, and was of similar construction to the foundations of a demonstrably late wall (90073) built over the top of the 19th century culvert. Its construction was very different from the walls in the roundhouse settlement. Features associated with an 18th century farmstead appeared to respect the wall and many post-medieval pits to the south-west appeared to have followed the alignment of the wall. The 19th century culvert 90066 follows the line quite precisely and this line is shown as a boundary between paddocks on an early 19th century estate map.

The argument for this being an early feature was based on it being cut by the early ditch (91445) and being overlain by structure D, probably a fragmentary roundhouse, as described below. Close inspection of the records suggested that the feature cutting the wall was a post-medieval culvert (90522), not the early ditch, but the relationship with structure D was harder to solve and involves the redrawing of sections produced on site using the relevant site photographs. Such a process should generally be avoided but the sections were recorded during a dry period in June 2007, making initial interpretation difficult (note that on figure 64.2 most of the colour variation is due to spraying the section with water prior to photography and to subsequent differential drying). The reinterpretation of these sections (figures 63 and 64) allows wall 90120 to post-date structure D and enables its interpretation as a post-medieval feature. There must remain some doubt as to the correctness of this off site reinterpretation, but it does simplify the understanding of the stratigraphy of this area. This wall will therefore be described and discussed below under post-medieval features.

Interpretation

The activity on the stone platform has been dated from *1080–945 cal BC (68% probability)* to *790–690 cal BC (68% probability)* making it Late Bronze Age or Early Iron Age. However the purpose of the platform is far from clear. Its depth towards the south-east and the neat revetting on the south-western side strongly suggests that this was a deliberate construction, not a dump of loose stones. The extensive burning on the surface of the platform, with charcoal over and between the stones, indicates that a large fire was burnt on the platform. After this soil and presumably turf developed over the platform. Charcoal within this and particularly charred cereal grains suggest that there may also have been occupation on this ground surface, although some of the charcoal may have been introduced from below by bioturbation. The numerous voids between the stones were initially thought to indicate that the stone platform had been quickly sealed to prevent the voids infilling, but this may not have been necessary. At Meillionydd, near Aberdaron, where a roundhouse settlement is being excavated by Bangor University, some of the roundhouses were backfilled with stone and this retained voids between the stones even though nothing had sealed the rubble other than turf (Ray Karl, Bangor University, pers. comm.). The growth of grass over the area would probably have stabilised the soil enough to prevent silt penetrating the voids and filling them in.

The way that the platform levelled the sloping ground suggests that this may have been constructed as the foundation for a building. The possible risk of flooding also may explain the need for a stone platform to keep the footings of a building out of the damp, especially if this was built on foundation beams. Bronze Age and Early Iron Age houses are rare in north-west Wales, despite burnt mounds indicating that the population density must have been fairly high. Clay-walled roundhouses were found at Mellteyrn Uchaf (Ward and Smith 2001) and the Meillionydd settlement (Waddington and Karl 2016) originated in the Late Bronze Age or Early Iron Age, but these are some of the very few examples. As seen in Area J at Parc Cybi possible Bronze Age settlement activity was not associated with any trace of the a house. The difficulty in finding houses of this date may be due to many of them being built in a way that did not involve earthfast foundations. Large structures can be built of timber entirely on foundation beams resting on the surface of the ground. The stone platform would have made an ideal base for such as structure. The burning on the platform may be evidence for a burnt timber building. The burning was restricted to the areas under roundhouses A and E and it is suggested that this is where the building stood. The similar proportion of species of charcoal in the turf layer to those in the burning suggests that the charcoal was probably mixed into the soil horizon from the burning below. This is supported by the radiocarbon dates which are not all ordered to match the stratigraphy and suggest some mixing. The dominance of oak in the charcoal could support the idea that it originated from a burnt building, but the fragments are no bigger than pieces from domestic hearths, and oak was commonly used across the site at various periods as fuel wood. The charcoal can therefore not prove the existence of a building.

The argument for the presence of a building is weakened not by the lack of traces of the building itself, but by the comparative lack of related activity. Very few pits and postholes are attributed to this phase of activity and finds are scarce. It may be that by this period the culture of north-west Wales had already become aceramic, and most flints and stone tools are likely to be undiagnostic of period. Time pressure dictated that the stone platform was removed by machine rather than by hand, so it is possible that finds falling into the voids between the stones after the fire were missed in the excavation. There were animal remains, mainly teeth found in ditches 91445 and 91783. If these ditches were contemporary with the platform as argued above these indicate settlement refuse. The surviving teeth probably represent a more extensive dump of bone, and suggest debris from processing animals was dumped in the ditches, though the poor bone preservation means that it is not possible to determine which body parts were dumped to suggest the type of processing that might have taken place. The presence of this material is hard to explain if there was not settlement nearby, but it was not possible to prove the chronological relationship between the animal remains and the Early Iron Age activity because the remains did not contain sufficient collagen for dating.

The buried soil layers under the settlement also produced animal remains, again mainly teeth, some from cattle and some sheep or goat. There was also a significant number of horse teeth. Some of the latter were found in deposit 92578, which was rich in charcoal and sealed under wall 92016 beneath roundhouse C. Other finds were rare from these earliest deposits, though there were a small number of lithics. Pottery may have been absent because the area was already aceramic by the Early Iron Age. A spindle whorl (sf769) from context 92561, a patch of old ground surface partially under roundhouse C, was probably trampled into this layer from the later activity relating to the roundhouse settlement. A pit (91660) in roundhouse A produced a date of 920–820 cal BC (SUERC-87081), which could indicate that this was related to the earlier activity. However the pit cut a gravel layer (91663), almost certainly part of the first floor surface in roundhouse A so it presumably belonged to the roundhouse and contained residual material from cutting through the stone platform.

Another find that may be associated with occupation in the Early Iron Age was found in the old ground surface about 17m east of the platform (figure 61). This was a fragment of an amber bead (sf639). This was difficult to date but might be Late Bronze Age or Iron Age (Sheridan, current report volume 3, part IX.2). Amber would have been a very precious commodity, and amber finds of the Bronze and Iron Ages in Wales are very rare. The preciousness of this object is suggested by an attempt to cut the bead, possibly with a fine metal saw. This attempt failed and the bead broke rather than being neatly cut, but it suggests that even a small bead was worth carefully dividing. The bead may have originated in a necklace, but then been used amuletically as a single bead, possibly ascribed the supernatural power to heal or ward off evil. Dividing it would enable its magic to be shared. The discovery of two possibly contemporary valuable objects, the gold ring and the amber bead, to each side of the platform could suggest its importance.

To conclude, a stone platform was built in the Early Iron Age, which, from the effort taken to build it would suggest a location designed either for specific activities, or for a building. The dense burning is indicative of the destruction by fire of a timber building, and this interpretation considered the most likely.

Other undated features may also be contemporary with the stone platform. . The ditches 91445 and 91783 were sealed under cobbled layers associated with the roundhouse settlement and could therefore be contemporary with the stone platform. Ditch 91783 may have defined the edge of the platform. Ditch 92615 ran parallel for part of its length with ditch 92799, the southern part of ditch 91445, and so may also be contemporary. Ditch 92615 can perhaps be dated by the gold ring found in its fill. This cannot be closely dated, but could be of either Middle or Late Bronze Age date. It was initially speculated that the semi-circular gully (92652) cut by ditch 92615 might have been the remains of a barrow ring ditch, although it was far from being deep enough or wide enough to be convincing. Gwilt and Davis (volume 3, part X) suggest that the ring may have been deliberately deposited in the ditch as an act of structured deposition.

Ditches 91445 and 92615, if contemporary, would seem to be field boundaries that came together at an entrance, about 5m wide. The curving form of 92615 suggests a funnel-shaped entrance to guide livestock through the gap. If this was so then the postholes and structure 92807 were probably only used when the entranceway was no longer in use, if indeed they belong to this phase. However, it is possible that the posts were part of a structure in the entranceway. This would seem to have been too complex for a field gate but could perhaps have been some sort of cattle crush for the management of livestock. A small group of probably Bronze Age flints from the buried soil immediately south of pit 92742 supports some early activity in this area.

If this was indeed a field entrance, especially leading as this would to a marsh, it may have been seen as a liminal and therefore ritually important point in the landscape, suitable for a votive offering of a valuable item. It is possible that the gold ring was a curated item or heirloom and was deposited after being in use for a significant length of time. Perhaps a Late Bronze Age gold object could be kept into the Early Iron Age. The gold ring may therefore have been deposited as part of the activities performed on the stone platform.

These two ditches with the entranceway suggest the existence of a field system pre-dating the roundhouse settlement, but contemporary with the stone platform. Soil micromorphological evidence from the buried soil layers under the roundhouse settlement supports the presence of ploughed fields, probably converted to pasture some time before the building of the settlement (Lewis, current report, vol 3, part XXI).

The sequence of activity in this area close to the marsh may have started with a short-lived occupation in the very late Neolithic period, followed by activity represented by burning, perhaps woodland clearance, in the Bronze Age. At the end of the Bronze Age or Early Iron Age a timber building was constructed on the stone platform in a field defined by a ditch. On the north-western side of the ditch was probably another field from which livestock could be moved to graze on the marsh through a broad entrance gap. This was the location chosen in the Middle Iron Age to place a larger settlement, reusing the stone platform, though the boundary ditches and fields had gone out of use.



*Plate 90.
Roundhouse B
as first exposed,
showing stone
walls immediately
below the
ploughsoil*

Iron Age (phases II-III)

Overview

Figures 65, 66 and 67

The main phases of activity comprised a stone-built roundhouse settlement with up to 0.9m in depth of stratified deposits and structures. Although the area over the settlement had been ploughed it had never been deeply ploughed by modern equipment. Many of the walls had been robbed down to foundation level but floor levels and lower deposits were generally well-preserved (plate 90).

The settlement was composed of substantial stone-built roundhouses. There were four large stone-walled roundhouses (roundhouses A, B, C and E) (figure 65, plate 91) and one (roundhouse I) (figure 58) that may have been of stone, but the wall had been entirely removed, leaving just a foundation trench. There were also several smaller structures; two smaller stone-built buildings, both probably circular (structures D and H), a circular building probably with a wattle and daub wall (structure F) and the postholes of four rectangular timber structures, probably granaries. The settlement was built close to the edge of a marsh. Several of these buildings were constructed on the Early Iron Age stone platform, though a new platform seems to have been built specifically for roundhouse B. An extensive area of earth, up to 0.5m deep, was deposited to the south of the main heart of the settlement. This created raised ground, enabling roundhouse I to be built very close the marsh without risk of flooding.

The houses were particularly large for stone-built roundhouses with internal diameters up to 11m. The walls were substantial and in two cases were successively widened. Most of the large houses had opposing entrances with their main entrance on the west or north-west side. This, and features emphasising the entrances, suggests factors other than practical considerations influenced the layout of the houses.

Radiocarbon dates showed the settlement to be occupied in the Middle Iron Age. Roundhouse E was demolished during the lifetime of the settlement, roundhouses A and B were altered and roundhouse C was built in the latter part of the site's history (figures 66 and 67). The settlement must have existed for a considerable period to accommodate these changes and the dates suggest that this may have been around 200 years.



Plate 91. Aerial view of roundhouses A, B and E under excavation

Phase II

Phase IIa: Roundhouse E

See figure 68 for plan and figure 69 for sections

Although it was hard to prove stratigraphically, it is likely that the settlement started as a single house, roundhouse E, which was demolished before the other houses were built.

Roundhouse E was built on the stone platform following development of a cultivated soil. This would have provided a useful level area on which to build the house.

The roundhouse had well-built stone foundations (90539/91719/92432), about 1.4m wide, defining a circular structure c.12m externally and 9.4m internally (plates 92 and 93). The foundations were faced by large boulders with a core of smaller stones, and although they only stood one course high they were substantial enough to be the base for a stone wall, rather than a clay or turf superstructure. A pale clayey silt deposit (91178) present in places over the foundation stones may indicate that the wall had clay bonding. This was the best preserved of the roundhouses, as most of the full circuit was present. The southern arc of the wall had suffered some damage from post-medieval pits (91136, 92101, and 91225) and the outer face of the eastern arc of the wall had been removed, but most of the rest survived.

The building had two opposing entrances, facing the north-west and south-east. The north-western entrance had



Plate 92. Roundhouse E from the west, showing entrance and wall



Plate 93. North-east quadrant of roundhouse E showing wall and internal features

large vertical slabs (91908) facing the gap through the wall and gravels and clays (92083 and 92048) had been laid down to form a surface in the entrance. The line of the northern side of this entrance seems to have been continued by a slot (94023) with packing stones, presumably to hold a post structure. This cut through the surface layers within the entranceway but was most probably part of the original design of the roundhouse. If this was part of a projecting porch no similar structure was found to the south of the entrance but this may have been too disturbed by ploughing or the stripping process to be recognisable.

The south-eastern entrance was more disturbed and harder to interpret. The presence of a vertical slab (94012) projecting into the interior of the house suggested that the northern side of the entrance might have been where the surviving arc of wall ended. However this slab was set into some of the interior deposits, including the fill of an early pit, and was seen to be a late addition rather than an original feature. The gap in the wall was probably due to stone robbing and a few stones of the wall remained *in situ* south of the gap, including two large facing stones (92099) and wall core stones (91198). This section of wall was neatly finished by a vertical slab (91947) set across the width of the wall, and this indicated the actual northern side of the entrance. The southern side of the entrance probably also had an orthostat facing it, packed by stones wedged on end; the orthostat did not survive but the wedging stones remained (94033). These marked the end of another surviving section of wall (92432). This made the entrance only about 1.1m wide; very much a back-door, smaller and less impressive than the north-western entrance.

Immediately outside this entrance was a deposit of gravel (91475) bordered by kerb stones (91467). The gravel was much eroded and only a small patch still survived within the entrance but it seems likely that this was a dry surface at the entrance. It is possible that this surface also continued around the wall of the roundhouse to the south-west. Here deposit 92413 continued the line of 91475, with overlying stones (94027) forming a narrow line of flat slabs resembling a path. This was on a different alignment to the kerb 91467 but seemed approximately to continue its line around the side of the house. The area was underlain by a stony deposit (92443) with flat slabs on top (92414), which may have been an earlier phase of the surface. This kerbed gravel pathway may be a smaller version of the much better preserved example around the northern side of roundhouse A (see below).

Over much of the interior was a dark brown silty deposit (91444), which has been interpreted as a mixture of later occupation deposits and earlier deposits over the underlying platform and therefore of little use in establishing the stratigraphy of the interior features.



Plate 94. Hearthstone set in middle of roundhouse E, seen in section

Plate 95. Finely layered deposits around hearthstone in roundhouse E, shown in section with floor layers and stone platform material



Inside the roundhouse was well organised. It had a large granite hearthstone (91707) set close to the middle of the house and surrounded by clay floor deposits (92216 and other numbers) (plates 94 and 95). The hearthstone had been set on edge, so that a narrow face was upper-most, in a shallow pit (91992) in the platform deposits and layers of clay and charcoal had built up around it. On the western side of the hearthstone, in the top of the clay deposits were three narrow slots of varying length (91375, 91551, 91552) with packing stones, which may have supported a light structure next to the fire for use in cooking or drying. This suggests a fairly long period of use. The floor surfaces were represented by patches of yellowish clay and gravel, especially in the north-western quadrant, where it was recorded as 92480-92485.

Soil samples from the lowest (92147) and highest (92145) layers in the hearth contained quantities of charred chaff; mainly wheat spikelet forks with some glume bases and culms fragments, and small amounts of weed seeds (McKenna, volume 3, part XIX.4). The sample from layer 92147 contained willow/poplar charcoal while 92145 contained only oak charcoal, suggesting different fuelwoods used at different times (McKenna, volume 3, part XIX.4). The chaff was probably used to start the fire.

In the north-eastern quadrant there were intercutting pits and other evidence for alterations during the life of the house. The north-eastern arc just inside the wall was surfaced with layer of clay and stones (91561), which seems to have originally been delimited by a kerb of pebbles (92060) (plate 93). At the south-eastern end this area was defined by a slab set on edge (94012) set into underlying deposits, with 91561 built up against its northern side. Just north of slab 94012 was a large posthole (91152) with substantial undisturbed packing stones (plate 96). This did not clearly cut 91561 and the latter may actually have been deposited over some of the packing stones of this posthole. The packing stones seem to be on a similar level to the surface of 91561 and though the posthole and post were probably inserted before 91561 was laid down, they appear to be contemporary. Surface 91561, with the kerb (92060) and slab (94012) defining its limits, overlapped earlier, infilled features and so represents a later addition to the roundhouse.



Plate 96. Large posthole 91152 with kerb slab (94012) next to it

The posthole 91152 was clearly also a later insertion as it cut some of the earlier pits. The posthole would appear to have held a substantial structural post but the function of this is not clear. Feature 91208 contained some fairly large slabs that might have been packing stones, but if so none was in place. Feature 91223 also contained large stones that might be packing stones but this was only about 0.15m deep, whereas the other two features were about 0.35m deep. Features 91208 and 91223 are probably best interpreted as pits; they certainly would not aid interpretation if they were postholes as they were all so close together.

The earlier activity under surface 91561 included a broad slot (91366) containing small postholes. Near the south-eastern entrance were two small pits (91254 and 91273). These were cut by pits belonging to the later activity. There were four later pits near the entrance (91170, 91246, 91311 and 91413). Finds from these indicate specific activities in this area as pits 91170 and 91246 contained spindle whorls. The finds in the latter included three spindle whorls found stacked in a pile according to size (sf 385, 386 and 387), as well as another spindle whorl (sf391). Other spindle whorls were found in general layers in this area, but their use seems to be specifically related to the later pits and possibly to the surface 91561.

In the north-western quadrant of the house a grinding stone (92230, sf652) (plate 97) and a stone-lined trough



Plate 97. Grinding stone 92230 in situ in north-west quadrant of roundhouse E (immediately right of the ranging rods) with wall in foreground

(92428, cut 92427) were set into the floor layers close to the wall. Floor deposits appear to have built up around the grinding stone, while the trough was probably cut through them, though both would have been in use together. A small posthole (92197) also cut through the floor. This was just inside the western entrance and was possibly related to a door. A patch of stone (91485) seems to have been laid down inside the north-western doorway in this later phase, possibly mend wear of the floor surface. Two other postholes (91442 and 91699), with clear post packing stones, were located inside the north-western entrance with 91442 awkwardly placed so that it blocked movement directly between the door and the hearth. In the fill of posthole 91442 was a sherd of Cheshire Salt Container (sf422), one of the very few sherds of pottery found in the roundhouse settlement. Other pits (91223, 91339, 91357 and 92328) were located in the south-eastern quadrant of the house. A gap between pits 91223 and 9157 aligns with the south-eastern entrance and may indicate a route directly to the hearth.

To the north-west of roundhouse E the existing stone platform seems to have been used as a courtyard with additional layers of cobbling in use with roundhouse E (e.g. 92079, 92123, 92429). Associated with this courtyard were two walls (92016 and 92078) (plate 98). Wall (92016) was at least 10.4m long and about 0.5m wide. It was built of small stones, no more than 0.25m in length, some set horizontally and some set on edge forming rough faces. In places two or possibly 3 courses survived but generally only the lowest course was present. Wall 92078 was generally composed of larger stones laid flat. Both walls were aligned roughly south-east to north-west, but



Plate 98. Wall 92016 after overlying floors of roundhouse C have been removed

not quite parallel to each other. Roundhouse C had later been built over this area, causing disturbance that made these features difficult to relate stratigraphically to the use of roundhouse E. However a patch of burnt clay (92040), possibly a small hearth, on the southern side of wall 92016 produced a date of 410–260 cal BC (SUERC-87082) showing that this activity was contemporary with the roundhouse (see discussion of dates below).

Between the western end of the two walls were three shallow pits no more than 0.22m deep (92333, 92335, 92337). However these cut a layer that covered the demolished remains of wall 92016 and they are likely to have belonged with the activity in roundhouse B rather than the earliest activity in roundhouse E. Also on the open courtyard area west of roundhouse E was a small patch of charcoal-rich silt (91681) no more than 0.6m long. This contained a sherd of Late Neolithic Grooved Ware pottery (sf4070), presumably residual from the occupation described above that under lay roundhouse A.

The Construction and Demolition of Roundhouse E

The determination of the chronological relationship of roundhouse E to the other houses was not straight-forward. The wall of roundhouse E was dismantled down to foundation level in antiquity, perhaps explaining the good preservation of its foundations. This demolition took place during the use or prior to the construction of roundhouse A, as up to 0.4m of brown loamy deposits (91110 and 91111) had built up directly over the foundations of roundhouse E but against the upstanding wall of roundhouse A (figures 69.1 and 70.2). This relationship was confused by animal burrowing up against the wall of roundhouse A, but even if it could not be seen well where the sections were placed, in plan the relationship was clear. On top of these deposits was built the continuation (91578) of a wall (90010) running through the settlement (see below), which extended right over the location of the demolished wall of roundhouse E (figure 69.4).

The difficulty was in demonstrating the sequence of building of the three roundhouses, A, B and E. Thin silty and peaty deposits contemporary with and occasionally earlier than the platform under roundhouse E extended to the south. One silty deposit (91730), possibly the result of flooding, had built up over and around the stones of the platform under roundhouse E and extended under the wall of roundhouse B (90802/90803/90804). This was originally thought to show that roundhouse E was built before roundhouse B, but as the radiocarbon dates had proved that the platform and deposits pre-dated roundhouse E this only shows that roundhouse B was built later than the platform and cannot determine the order in which the houses were built.

Thin silt deposits (e.g. 91173, 91782) seemed to have built up over the foundations on the northern arc of the wall of roundhouse E and it was on these deposits that roundhouse A was built (figures 69.1 and 4 and 70.2). It was initially thought that these demonstrated that roundhouse A had been built after roundhouse E, but improved understanding of the platform and the soil layer over it suggested that these layers were actually part of this soil layer. The large stones that this overlapped were probably platform stones projecting slightly from the main body of the platform rather than facing stones of the roundhouse wall; this area was particularly noted for having large stones in the platform. The stratigraphy therefore shows that both roundhouses A and E were built on the soil layer and it does not help in determining a relationship between them.

Stratigraphically roundhouses A, B and E could have been built at the same time. However at the closest point the walls of roundhouses B and E were 0.67m apart and roundhouses A and E were only 0.17m apart. The significance of this was missed when looking at the two dimensional plans but while work was being carried out on the reconstruction drawing of the settlement it was realised that this meant that all three houses could not possibly have been in use at the same time¹⁹. There would have been no room for any projection of the roofs beyond the limit of the walls, which would surely have been necessary for stability and to prevent water penetration into the walls. In fact it is likely that the roofs projected a significant distance from the walls. Roundhouses A and E were so close together that it is possible that the thatches of both roofs were joined, but this would be a complex task for such large roundhouses, and it would seem probable that in this case the walls would have directly abutted each other as well. It therefore seems most likely that roundhouse E was levelled before either roundhouse A or B was built, in fact it is probable that it was levelled immediately before construction started and that the stone from roundhouse E was used in the other two buildings. However this does not explain why the foundation stones were not reused and the earlier house entirely removed.

Deposits 91110 and 91111 must have developed over the remains of this house during the use of the other houses. These layers were largely indistinguishable from the lower ploughsoil and where they had spread over the house

¹⁹ Thanks to Helen Flook for this insight.

they were removed partly by machine and partly by hand. Their significance was only realised where they extended under wall 91578. Some of the finds recovered while cleaning over roundhouse E certainly came from these layers. Layers of cobbling or paving over roundhouse E would certainly have been noticed and the soily nature of these layers suggests that this area was grassed over allowing soil development. The former site of roundhouse E seems not to have been actively used as a yard or further built on while roundhouses A and B were in use.

It is therefore suggested that roundhouse E was built on its own on the turf-covered stone platform. It had a cobbled yard to the west and slight walls leading towards the entrance, but probably no other features around it (figure 66).

It is tempting to associate the demolition with remodelling of roundhouse A and B, but if the extension of the wall through the settlement was due to these changes then the demolition of roundhouse E must have been significantly earlier, giving time for deposits to built-up over it before the new wall extension was built. Probably roundhouse E was demolished just before roundhouse C was built as the latter was built over the courtyard and walls relating to roundhouse E.

As the brown loamy deposits (91110 and 91111) were largely indistinguishable from the ploughsoil over roundhouse E the extent of their spread was not well defined. Over the southern part of roundhouse E, however there were stony deposits (91343 and 92143) sealing features relating to the house (figure 69.2). These were probably dumped over this area to level and consolidate it, and the site of roundhouse E was presumably an open, possibly grassy space, between roundhouse A and B.

Phase IIb: roundhouses A and B

Roundhouse A

See figures 65 and 68 for plan and 70 for sections

As discussed above roundhouse A may have been built during the demolition of roundhouse E and from some of its stones. Roundhouse A was built immediately to the north of the site of roundhouse E, and was a particularly large stone-walled roundhouse (plate 99). Like roundhouse E it took advantage of the existing stone platform, which had created a level foundation on which it could be built.

Roundhouse A suffered considerably from stone robbing; only half the arc of the wall survived and of that much of the original wall was missing, although its width and location were preserved by the existence of surviving features. The south-western arc of the wall (90467) was quite well-preserved with large facing stones and a rubble core, but the northern arc was defined mainly by its absence. There were very occasional inner facing stones (91336 and 91525), and the outer face was defined for a short section by some rather slight stones (90620). These may have been chocking stones for larger facing stones and they were all that has survived the robbing. There were also occasional hollows where large stones had been removed, mainly facing stones for this original wall.



Plate 99. Roundhouse A from north-west



Plate 100. Kerb 90661 and metalled surface

The original building had an external diameter of about 14m and an internal one of c. 11m, the wall being about 1.6m wide. Concentric with the north-western arc of the wall but outside, it was a curving line of stones (90661) that formed a kerb defining a metalled path or external platform 1.4m wide (plate 100). This may have been covered by the eaves of the roof and provided a walk-way around this side of the building.

There was an entrance in the western arc of the wall. On the southern side of the entrance was a slot (92477) about 2.5m long with small postholes on each end (91417 and 92475), about 0.35m in diameter and 0.4m deep (figure 71). The slot also held a post as there was a stone setting in a deeper part of the slot recorded as posthole 92431. Other packing stones in the slot suggest possibly there was also planking supported in the slot. On the northern side of the entrance, on a slightly different alignment, was a more confused, L-shaped slot (92281). This incorporated a large posthole (92261) and other post settings. The posts were securely packed by numerous large stones including 92339, which was 0.8m long. Another stone-lined posthole (90684) seemed to be paired with 91417 and was probably part of the same structure though the stratigraphy would allow it to belong to either the early or the late phase of the use of the roundhouse. Between them these postholes and slots would have supported large timbers sufficient to make an impressive, slightly splayed, porch with an entrance about 2m wide. The entranceway was surfaced with an orange-brown gravel deposit (90691). This had a slight peaty lens within it suggesting that the area may have been resurfaced after use.

The eastern half of the wall had been entirely robbed away but the presence of postholes (90486, 90488, 90490/90516, and 90554) may hint at a south-eastern entrance (figure 75). These were substantial postholes, about 0.7m in diameter and up to 0.34m deep with packing stones. They were not directly opposite the western entrance but formed a neat right angle, which possibly might have been the southern side of a porch if the rest had



Plate 101. Posthole 90750 with packing stones

been removed by the 19th century culvert (90066).

Towards the centre of the roundhouse a shallow hollow (90817) (figure 68) was roughly lined with stones (91384) and filled with clay (91383) to form a hearth. A layer of orange gravel (90691) was laid in the entrance way and across much of the interior of the house as a floor. Presumably this originally covered the whole area but it had been eroded. Other patches of gravel also survived and this deposit was probably patched and mended during the lifetime of the house.

As described above the radiocarbon dates indicated that many of the features found within the area of the roundhouse belonged to much earlier activity. Very few features could be securely attributed to the use of the roundhouse. These included two substantial postholes (90750 and 90752) (figure 68). Posthole 90752 measured 0.26m by 0.14m and was 0.21m deep. It had neatly placed packing stones forming a stone setting to support the post. Posthole 90750 was much larger, about 0.85m in diameter and 0.32m deep, but the post seems to have been positioned in one end of the cut, which was very tightly packed with stones (plate 101). The lack of disturbance of the packing stones and neat postpipe shows that this post was left to rot *in situ*. The main part of this posthole was sealed beneath the floor deposit 90691 but the post packing projected through this, as would the post itself, so this seemed to have been part of the structure of the first phase of use but could have continued in use into the later phase. Postholes 90750 and 90752 appeared to be a pair and as they were aligned on the porch they probably formed part of this structure, continuing it into the interior of the building.

A slot (90962) with vertical stones along the sides and a couple of possible capping stones initially resembled a short drain, but it turned through ninety degrees and some of the stones suggested post packing. It was probably a trench for posts forming a small structure against the wall, just north of the doorway. Posthole 90752 might possibly have formed part of this structure. A fragment of another slot (92010) survived nearby perhaps suggesting small compartments around the northern arc of the roundhouse wall. Also in this area was a circular feature about 0.8m in diameter and 0.3m deep (91660). This was lined with large stones and could have been a stone-lined pit but was perhaps more likely to have been a large posthole. If it was a posthole it only functioned in the first phase of the use of the roundhouse as it was sealed under the later wall (90497). These features cut fragments of a gravel floor layer (91663) and can fairly confidently be assigned to the roundhouse, even though willow or poplar charcoal from the fill of 91660 produced an Early Iron Age date (SUERC-87081). It is assumed that this was residual from the activity below.

Roundhouse B

Figures 68 and 73 for plans and figure 72 for sections

To the south-west of the site of roundhouse E another substantial stone-walled roundhouse was built (roundhouse B). This was built on an organised platform of sub-rounded cobbles and boulders (90884), supported by larger boulders forming a revetment (91381) (plate 102). The northern, up-slope, part of the platform was composed



Plate 102. Stone platform
90884 under roundhouse B

not of stone but of a grey-brown soily deposit up to 0.3m thick (90956/90922). The curve of the revetment of this platform matched perfectly the proposed curve of the robbed out roundhouse wall on the southern side, so unlike the platform under the other roundhouses, this platform must have been built specifically for roundhouse B.

Two thirds of the wall of roundhouse B had been robbed away and the remaining section had probably survived because it was built at a lower level than the rest and was essentially part of the foundations of the roundhouse. The northern arc of the roundhouse wall rested directly on the earlier ground surface, including the deposits that overlapped the early platform. Against the inside face of the wall a series of thin horizontal layers had built up, (91025, 91026 and 92273) probably representing early floor layers, laid directly on the old ground surface. Further south where the earthen platform was built up the floor layers sealed the surface of this. The southern half of the platform was composed of boulders and large stones up to 0.6m in length. Many of the stones were sub-rounded glacial boulders, and they were loosely heaped with many voids. The platform was about 13m in diameter and up to 0.4m deep. The southern edge of the platform was revetted and contained by more carefully laid larger boulders forming a rough face (91381). The north-eastern half of the platform was not made of stone but of dumps of loose grey brown soil with relatively few stones (90922/90956). The southern arc of the roundhouse wall would have been built on top of the stone platform, but very little of this survived.

The curve of the wall and the size of the platform indicated a building about 14m in diameter externally and just over 10m internally. The original wall was about 1.5m wide. Both inner and outer faces of the wall were built partly of orthostats and large boulders (0.4 by 0.6m on average but some larger) and partly of drystone walling with up to 3 courses surviving (plates 103 and 104). The inner face (90804) tended to contain more slabs set on edge with walling filling the gaps between, while the outer face (90803) contained more coursed sections but often with larger stones used in the coursing, but both faces varied considerably along the surviving sections. There was a rubble core (90802) between the faces.

There was an entrance in the north-west arc of the house. The northern side of this survived and it was indicated



*Plate 103.
Exterior of wall
of roundhouse
B, overlying silt
deposits*



*Plate 104. Inner
face of wall of
roundhouse B*

by a slab running perpendicularly across the wall; however it was somewhat disturbed and not as well defined as the north-west entrance in roundhouse E. The width of this entrance cannot be determined as no trace of the southern side survived.

The eastern arc of the wall of roundhouse B was damaged by large post-medieval pits (91134, 91136) and general stone robbing but a small fragment of *in situ* wall (92506) did survive. This had 2 large stones running through the width of the wall and forming what appeared to be a faced end to the wall. This would make it the southern side of an eastern entrance, almost but not quite opposite to the north-western entrance. The fragmentary state of this entrance showed that it existed but little more can be said about it.

Over the platform within the walls was an orangey brown gravel (90990) and other patches and areas of clay and pebbles (91025, 91026, 92237) forming a sequence of floor surfaces up to 0.2m deep. Cut through this were numerous features including a group of postholes with substantial packing stones (91914, 91919, 92245, 92246, 92359, 92372). These postholes were about 0.6m in diameter and up to 0.5m deep. They were mostly concentrated in the northern part of the house and did not form a post ring or similar structure so it is assumed that they were related to 'furniture' or sub-divisions within the house. Some possible post pads may have formed a similar function (90908, 91928, and 91448). Numerous other pits and postholes were concentrated around the hearths to the west of the centre of the building. Many of these postholes were less well-defined and had either disturbed or less substantial packing.

The earliest hearth in the building had a single large stone slab (91964) 0.54m long set into a mottled yellowish clay deposit (91972/92596) (plate 105). To the south-west of this was a pit (91619) lined with stones that seems also to have been used as a hearth or fire pit. Part of the northern arc of the house seems to have been surfaced with flat slabs and cobbles (92398 and 92367). This was disturbed by later alterations and may have extended over much of the northern arc of the house.

Inside the north-western arc of the wall there was an area of paving (92398). This was fairly irregular but was composed of numerous flat slabs, some up to 0.5m in length. The south-western end of this area was defined by a line of stones (92367) supported by thin slabs (92548) set on edge into the deposits below. The area was later covered with a clayey silt (92356), possibly part of the new floor layer (90882), then three postholes were inserted (92372, 92359 and 92372), which presumably went out of use when the wall was widened (see below).

A slab path (92471) ran north-west from the north-west entrance (figure 73). It was composed of slabs up to 0.8m in length laid in a line with rougher stones around them, especially to the south. It was continued by a more widely spaced line of slabs (92635) set in a sequence of gravel and cobble deposits. This feature was cut by the culvert 90522 but no trace of it appeared at the other side and it is as if it ended at the earlier ditch 92799. The pathway could not be linked directly to either phase of use of the roundhouse but the evidence for additions and changes to the pathway suggests that it was in use throughout the life of the building. The pathway seems initially to have



Plate 105. Hearth slab 91964 in roundhouse B

been set within a loosely cobbled area (92634) extending to the south, with this cobbling being replaced in the later phase (92633).

To the south of the pathway, cutting the early cobbling but partially sealed by the later cobbling were two structures. This area was referred to as roundhouse G during the excavation because the evaluation identified what appeared to be the covered drain of a roundhouse here and excavation initially proceeded on the assumption that there was a roundhouse. The feature identified in the evaluation proved not to be a drain and none of the features here resolved into a roundhouse. Instead there were two rectangular structures, the smaller one set inside the larger one. These will be referred to by their group numbers 93004 and 94019 (plates 106 and 107). Structure 94019 was defined on its northern side by a gully interpreted as a foundation trench (92731) with an additional trench (92690) outside it, possibly indicating an extension of the structure not otherwise detected. The southern wall was the feature that initially appeared to be a capped drain but the line of slabs (92684) were shown to lie between and in places over a line of postholes. This could indicate a post wall replaced by one in clay or turfs with a slab foundation. The western wall was defined by postholes (92868, 92688, and 92729). Posthole 92886, or possibly the less convincing posthole 94018, may have formed the southern corner of the structure but there seems to have been no eastern wall. Pit 92785, which may originally have been stone-lined, lay in the middle of this gap. These features indicate a structure measuring about 8.5m by 5.0m externally.

The presence of an additional structure immediately north of 94019 is indicated by a gully (92690) running parallel to the western end of 92731 and by an L-shaped slot with packing stones to support timbers. This slot (92936) is on the same alignment as the western end of 94019 and turns at a right angle to that alignment. Any other traces of this structure have been removed by culvert 90522, but some trace might have been expected to the west of the culvert and none was seen. The nature of this structure, whether an addition to 94019 or a structure in its own right, is unknown but it would seem to be contemporary with 94019.

Inside structure 94019 was structure 93004 This measured 3m by 2.6m externally and was composed of 2 rows of



Plate 106. Structures 93004 and 94019 fully excavated

Plate 107. Structure 93004 fully excavated



3 substantial postholes each (92887, 92801, 92803, 92782, 92621, 92625), with a supporting posthole (92889) in the middle of the south-east side. Several of these postholes had clear packing stones with those in 92887 being entirely undisturbed (plate 108). Other smaller postholes in this area seem to pre-date the structure and 92623 seems superfluous to the design so it may be a later addition as a repair. Two small postholes (92906 and 92645) were recorded as being beneath the general layer (92661) on which the structure had been built. However these were so perfectly on the same alignment as the other postholes that they were almost certainly related and were not recognised at a higher level. They may also represent repairs or additions to the basic structure. Similarly a small post inside the structure (92897) is likely to have been related despite being recorded as under the general layer.



Plate 108. Posthole 92887 with packing stones



Plate 109. Horse teeth sf794 in situ in gully 92731

The stone surface (92626/92634) was clearly cut by gully 92731 of the rectangular structure 94019. The relationship of the postholes of 93004 to the stone surface was less clear but close inspection of the photographs suggest that the postholes did cut this surface. The surface, therefore, seems to have preceded both of these structures but it could have been in use with them. The relationship between the two structures relies entirely on posthole 92887 just clipping the infilled gully 92731. This, with the slightly different alignment of structure 93004 to gully 92731, suggests that the latter had gone out of use when the structure was built. However structure 93004 is nearly parallel to the southern side of structure 94019, so it is possible that the post-built element of this structure was still in use when structure 93004 was built. In either case the similarity in alignment suggests that there was relatively little time between the building and use of each structure.

Structure 93004 is a typical granary building as will be discussed below, but the character of structure 94019 is less clear. The small size of the postholes suggests that it may have been a fenced enclosure rather than a roofed building, or is it possible to imagine a light roof covered with a light weight material such as leather. This might make a temporary barn. The presence of the slightly later granary suggests the use of the area for processing cereals. Threshing barns are very much medieval structures but in wet west Wales perhaps a covering was useful when threshing and even winnowing. The latter requires a through draught. If there was originally a gap between postholes 92868 and 92688 then this combined with the entirely open south-eastern end may have provided the required draught. This is a highly speculative suggestion, but some kind of slight barn does seem to be a likely interpretation for the structure.

Gully 92731 was particularly unusual for the Parc Cybi site as it contained considerable quantities of animal bone and teeth (sf 792, 794, 795, 821, 4322 and 4466) (plate 109). Bone rarely survived on the site unless burnt, so survival here requires explanation. Part of the feature was sealed under cobbles, which might have aided preservation, but much of it was not including the location of some of the bone deposits. Some of the remains were sheep or goat teeth but most were horse teeth, including some that must have been buried still in the jaw. Both upper and lower teeth were found and could possibly have been from a complete skull.

Some of the postholes in Structure 93004, and a layer sealing them, produced fuel ash slags, some in large blocks (sf786, 787, 788 and 817). It is possible the fuel-ash slags were produced when the structure burnt down. However there was little charcoal from the deposits containing the slags and the burning of a granary, if it was full at the time, would have resulted in large quantities of charred grain, which was certainly not found. Fuel ash slags are

typically generated in corn dryers, amongst other situations (Young 2010d) and if these buildings were granaries the presence of a corn dryer nearby might be expected. Pit 92785 with the remains of a stone lining sitting at the entrance to structure 94019 is a possible contender (figure 73, plate 110). This had no obvious evidence for *in situ* burning and little charcoal was recovered from it, but the lining might suggest a pit corn dryer. If this, or another feature not identified, was used as a corn dryer with structure 94019 the material from it, including the fuel ash slag might have been used to pack the postholes of structure 93004.

Plate 110. Pit 92785 showing stone lining in base; possibly a corn dryer related to structure 94019



The megalithic wall and passageway

Figures 65 and 68

Running north-west to south-east into the settlement was a wall (90010, divided into 91802, 91803, and 91804) (plates 111-113). This was generally straight but with a slight curve and had facing on its north-east side composed of large slabs up to 1.0m in length generally set on edge. The southern face had occasional large stones but was generally much slighter with smaller stones laid in courses, although these rarely survived more than 2 courses high. In the middle was a rubble core.

The wall survived to a length of 25m and was 1.2m wide. At its north-west end traces (90011) suggested that it continued for another 5m to a large boulder embedded in the natural gravels. There was no evidence of it continuing any further but another wall ran to this boulder from the south-west. This wall (90005) appeared on the 1887 OS map and so was certainly used as a boundary wall in the 19th century. However it is possible that its south-eastern face (90029) was the reused remnant of an earlier wall. A series of linear hollows (90020 and 90134) under lay the north-western face of the wall. It was thought that these may have been related to the wall but they were sealed, at least in places, by the old ground surface on which the wall was built. This layer (90026/90030) was composed of grey brown or dark grey silt or sandy silt with some gravel and degraded stone and iron oxide mottling.

To the south-east wall 90010 ended about 4m from roundhouse A, giving plenty of room to pass between the wall and the roundhouse. Projecting south-west from the wall, and apparently marking its end was a slab set on edge (92589). Part way along the north-eastern side of the wall a short, shallow ditch ran perpendicularly from it. This ditch (92189) was c.3m long, 1.25m wide and 0.27m deep. It ended at the wall rather than passing under it and this



Plate 111. Working shot showing wall 90010



Plate 112. North-east face of wall 90010 fully exposed, showing packing stones at base



Plate 113. South-west face of wall 90010 fully exposed, shown overlying platform deposits and with stone 92589

with its alignment suggest that it was contemporary with the wall. The north-east terminal of the ditch was rather rounded and there was a narrow causeway 1.8m wide before the start of another similar ditch (92210) 1.54m wide, up to 0.4m deep and at least 4.35m in length. These ditches seem to have formed an entrance into this part of the settlement (plate 114). There seems to be no associated structure, as postholes in the area seem to have been later.

A near circular large but shallow pit (92111), about 2m in diameter and up to 0.4m, clipped the northern side of ditch 92210. The pit was full of large stones up to 0.5m in length, many laid flat. It seems unlikely that the occupants of the settlement would have buried good building stone and the pit is suggestive of a post-medieval pit to bury stones out of reach of the plough. However at least part of the pit fill was covered by the layer of cobbling that was spread over this area later in the life of the settlement, so it does seem to be of Iron Age date. The pit



Plate 114. Ditches 92189 and 92210 forming entrance into settlement

would have largely blocked the causeway between the ditches so it may have been dug not long before the ditches themselves were backfilled with stone and cobbled over.

The stones of the megalithic face of the wall were set in a foundation trench (92609) cut through the deposits of the early platform and the south-west face of the wall was built directly on these deposits. However other layers of cobbling were built-up against the north-eastern face of the wall. Defining different stone layers in this area was complex but if current interpretations are correct the stone of the original platform did not extend further than ditch 91783. This ditch was probably infilled long before the roundhouse was built and new cobbling extended the stone surface over and beyond the ditch, and over ditch 91445 as well. These early cobbles were not well defined to the north-west of the culvert 90522 but they probably originally extended to the two short cross ditches (92189 and 92210). These cobbles effectively formed a cobbled pathway beside the wall towards the entrance to roundhouse A. The pathway appeared to be accessed through the gap between the short ditches, making these and entrance to the settlement, or at least to roundhouse A. A much damaged section of wall (91293) ran along part of the north-eastern edge of the cobbles (figure 68). Relatively little of this survived but there was a quantity of stone (91794 and 91795), probably tumbled from this wall, extending to the north-east (figure 62.4). At the north-west end of this wall was a neat kerb of flat slabs (92243) bounding an area of clay, which may have been a floor surface. It was not clear if this floor and surface was in use with the wall or cut through it, possibly the latter, as the wall seemed to have been levelled during the life of the settlement.

Three pits cut the cobbled surface including two intercutting pits (91301 and 91329). These were about 1.0m in diameter and 0.4m deep. Like several of the deeper or lower features in this area they contained some animal bone and teeth, including cattle sized teeth fragments. A large pit about 2.0m in diameter and 0.37m deep was also possibly cut from this level. As well as some animal bone and teeth it contained a shaped pebble with the start of a hole drilled in one end (sf375, volume 3 Fig VI.4.7). This was made of the same stone as the spindle whorls (see below) and may have been intended as a spindle whorl but was not flat like most of them.

The relationship of wall 90010 to roundhouse E was unclear but it is probable that the wall was built with roundhouse A and was unrelated to roundhouse E. After soil layers had developed over the remains of roundhouse E the wall was extended so that it ran over part of the site of the earlier house (figure 75). This extension (91578) was less well-built than the original wall with no megalithic slabs, just small stones laid horizontally, with only a single course surviving. It is suggested that the wall was extended when roundhouse A was remodelled (see below).

Gravel platform

One of the most extra-ordinary aspects of the settlement appears to be the effort undertaken to raise the buildings above the level of possible flooding. Roundhouses A and E were able to reuse the existing stone platform but it appears that a new stone and earth platform was built to support roundhouse B. Running south from roundhouse B was an extensive area of made-ground, becoming deeper towards the south-east until it was 0.5m deep at the edge of the marsh. This appears to have been a platform for roundhouse I, enabling it to be built right on the edge of the marsh, in fact overlying the peripheral peats.



Plate 115. Drying cracks seen in the surface of the gravel platform

Multiple layers of gravelly soil generally described as friable brown or grey gritty silt with up to 40% small and medium stones (e.g. 91716, 91717, 92863, and 93625) were recorded creating a combined deposit up to 0.5m deep. Much of the deposit had distinctive rotted stones appearing as yellowish smears. Dr David Jenkins inspected this deposit and could detect no evidence of frost shattering or other traces that it was a glacial deposit. Cracking was seen in the surface of the deposit but this seemed to be due to drying and is perhaps indicative of an unstable, recently settled deposit (plate 115). Excavation of the deposit demonstrated that it sealed a buried soil horizon (figure 60, plates 78 and 84). Two Bronze Age dates (2470–2210 cal BC (SUERC-83305) and 1970–1760 cal BC (KIA40120)) from this buried soil prove that the gravel deposit was not glacial but was laid down after the Bronze Age. At this period no natural mechanisms could have moved so much earth, and human activity must be implicated. The deposit seemed to be too stony and compact to be colluvial ploughsoil. There is also no suitable slope from which this quantity of material could have descended. If it had originated from the hill in Area F2 to the west the deposit would have been deepest closer to the hill and probably would have failed to reach the marsh edge where it was seen at its deepest. It is therefore considered unlikely that the deposit built up through soil movement caused by ploughing, and that probably it was deliberately dumped. If this was the case it might have been used to raise the ground next to the marsh for the construction of roundhouse I and related structures.

Variation within the gravelly deposit makes it difficult to securely prove that all similar deposits found were definitely part of the same event. However similar material was seen underlying most of the features south of the main settlement and east of the later culvert (90522), with the deposit becoming deeper towards the east until it reached the edge of the marsh where it stopped quite sharply and would have created a steep scarp. The northern edge of this deposit was seen to overlap the base of the stone platform (90884) for roundhouse B. The deposit was quite thin at this point and reworking of the material could account for this relationship but at face value it appeared that the gravel platform was deposited later than the construction of the stone platform of roundhouse B. This suggested that stratigraphically roundhouse I was largely contemporary with the buildings in the main settlement, which was confirmed by radiocarbon dating.

Roundhouse I

Figure 74

If the interpretation given above of the gravel deposits as deliberate made-ground is correct then it seems to have been deposited as a platform for the construction of roundhouse I (group 93511). This near perfectly circular building lay to the south of the main settlement. It had an internal diameter of 9.6m and the wall was defined by conjoined, elongated postholes set within a continuous slot (plates 116 and 117). The postholes were up to 1.0m in length but no more than 0.5m wide, and up to 0.30m deep. Some contained packing stones. The form of the postholes suggests they held objects of an elongated shape not round posts. The shallowness of the holes also suggests that a deep foundation was not necessary. If the wall was built of planks set on end into the trench then the trench might be expected to have been continuous and more even. The “postholes” of varying width and length are perhaps more suggestive of stone slabs set on edge, each with an individually dug hole to accommodate slabs of various sizes. If this interpretation is correct all upstanding traces of the wall must have been robbed out. The wall might be imagined as having an orthostatic internal face with a drystone wall behind, of which there was no trace at all, or the orthostats could have formed a low wall alone and this took no weight of the roof, which was supported on an internal ring of posts. Either way it is suggested that this building was also a stone-built roundhouse, though of a different style to the others. See below for a discussion of this wall and parallels for it.

The wall line was broken in the eastern arc by a gap of c.6m, but this gap was partially filled by two conjoined elongated postholes (93582), which almost certainly represent the continuation of the wall where some of the slot has been lost. A near circular posthole (93588), about 0.4m in diameter but only 0.1m deep, seems to mark the end of this arc of the wall. This leaves a gap of about 3m, which may possibly have been an original south-eastern entrance, although it is very wide, and it is likely that some of the south-eastern arc (93533) has been lost, as the hollows towards the north-eastern end of this feature were no more than 0.08m deep. Posthole 93588 could have held the northern doorpost of a doorway. A small gap in the southern arc is most probably just an artefact of preservation and the wall probably continued here.

If there was an entrance in the eastern wall of roundhouse I this led to an area of activity. The main features are described under phase III below as they represent a later phase of activity here, but this was preceded by a short section of wall. The remains of this broad wall (93515) were only 3m long. It had faces of rough boulders, up to 0.6m long, and a rubble core. The wall was associated with a patch of possible clay flooring containing charcoal (93554). Stones (93507), interpreted as wall collapse, were sealed under a clay deposit (93505) into which a later



Plate 116. Roundhouse I fully excavated, located on the gravel platform on the edge of the marsh



Plate 117. Conjoined elongated 'postholes' forming wall of roundhouse I

structure had been cut, indicating the wall had collapsed before the later activity occurred. Within 93507 several stone objects were found; two spindle whorls (sf 5457, 5463) and a pebble of very soft rock with carved oval concavity, possibly a lamp or pigment pot (sf 5458, volume 3 Fig VI.1.5). There were also some fragments of animal bone and teeth (sf5462). Just outside the proposed eastern entrance were also three elongated pits (93592, 93594 and 93608).

The main entrance was on the north-western side with a substantial porch supported by large postholes joined by beam slots. The four large postholes (92971, 93162, 93165 and 93208) were between 0.8 and 1.0m in diameter and up to 0.48m deep. Postholes 93162 and 93165 had numerous large packing stones. In the former some stones seemed to have been jammed into the void left by the post being removed and in the latter 93165 the stones were mainly in the upper part of the fill, as if they had been disturbed. The fill of 92971 contained numerous small



Plate 118. Posthole 93162 half sectioned in an evaluation slot, showing stone fill

Plate 119. Posthole 93165 half sectioned, showing stones in upper part of fill



Plate 120. Posthole 9271 half sectioned, showing burnt stone in backfill

Plate 121. Posthole 93383 with post pad in base and adjacent features



stones, many of which were heat-fractured; apparently a deliberate backfill was probably introduced after the post had been removed (plates 118-120). This suggests that the northern side of the entrance may have been dismantled when the roundhouse went out of use. Posthole 93208 had only a single stone, but that was because it had been cut by a previous evaluation trench. In the trench it was identified as a pit (1906) with a fill of dark-brown sandy silt and frequent stones (Davidson and Roberts 2004, 10).

Each of the two pairs of postholes were joined by narrow slots (93316 and 93178) and the alignment of these was roughly continued into the interior by linear features (93238 and group 93334). The latter was composed of intercutting postholes and slots similar to but smaller in scale to the wall foundations, though in places up to 0.3m deep. The former had flat stones in the end that might have been post pads. In the north-east quadrant was a similar linear feature composed of joined postholes (93510). Together with 93238 this defined the northern segment of the circle. Within this segment was a rectangular structure (93145) built up against the wall. This may have been a stone-lined trough, though it was very disturbed and only one side slab survived on edge against the southern side of the feature, with a few basal slabs remaining. However there was also a narrow slot (93183) on the western side with packing stones as if it held timber planks or stone slabs, probably the latter as one survived on the southern side of the structure. Another slab set on edge (93369) approximately mirrored the slab in 93145 to the south of the porch, though this may be coincidental.

An arc of postholes (93023, 93383, 93407, 93438, and 93600) probably held a post ring to support the roof. These had post pads in the base, except 93023, which had a surviving post pipe. The post pad in the base of posthole 93383 was a near circular stone disc, chipped to shape (sf5518) (plate 121). This seems too carefully crafted to have been made as a post pad, so presumably had been reused from elsewhere, though what its original function was is not clear. Two stone slabs (94030) on the same circle may have been in the base of a posthole otherwise unrecognised. The postholes were between 0.3 and 0.7m in diameter and up to 0.3m deep. The circle formed was about 5.8m in diameter, but the posts on the southern side were rather widely spaced. There are also some stratigraphic issues. Posthole 93383 was sealed by a layer of charcoal and burnt stone (92945) produced by the activity inside the house, suggesting that the post had gone out of use and been removed during the lifetime of the building, which is unlikely if it was supporting the roof. However possibly the post had been removed after the building went out of use and the burnt stone was redeposited in the top of the hole. Posthole 93438 was partially covered by 92945 but with some of the fill exposed, possibly because the burnt stone layer had built up around the post while in use. Similar postholes are entirely lacking on the western side of the post ring but at this side the inner parts of the porch (93238 and group 93334) might have helped support the ring beam.

Postholes 93407 and 93438 had other postholes immediately adjacent (93405 and 93566 respectively). These post pairs do not seem to be necessary to the structure of the post ring and presumably had another function. Posthole 93383 seems to have been replaced or given additional support by posthole 93402, which had three flat slabs stacked on top of each other as a post pad, possibly because some alteration was needed to make the post fit the existing structure.

Just north of the centre of roundhouse I stood a post in a neat circular posthole (93574). This was about 0.3m in diameter and would have held a post about the same diameter. The post would have rested on a circular post pad, which fit tightly into the posthole and was set quite high up on the hole with the hole beneath partially packed with stone including burnt stone. This post seems to have been removed and replaced with another post in almost the same position. This also stood on a stone pad in a broad shallow posthole (93523). Layer 92946 had been laid up to and around the post, which had rotted *in situ* leaving a clear post pipe (92947). Posthole 93523 was clipped by other features in this area that were sealed under 92946, so the post was in place while other activity went on then the floor was laid over the other pits and around the post, which continued in use.

In the centre of the structure was a complex group of intercutting pits and postholes (group 93443). This sequence seems to start with a patch of pale yellowish clay (93091). This was clearly deliberately deposited clay but had no obvious evidence of heat reddening. It was covered by a very thin charcoal layer (93007) but this was part of a general charcoal-rich layer (92945) and may not have been directly related to 93091. The position of the clay patch suggests that it should have been a hearth but the lack of evidence for burning makes this uncertain.

There was no other obvious hearth in the building but much of the interior of the building was covered with a black deposit composed largely of small heat-shattered stone (92945). Some of the features inside the house were sealed by this layer and some cut through it. The layer of heat-shattered stone (92945) overlapped slightly with the fill of the wall slot (group 93306) but only seals the packing fill and the wall face stones were in use when this

layer was deposited. Deposit 93091 was cut by a large shallow hollow (93428) and this was cut in turn by a series of small pits, no more than 0.4m in diameter, mostly containing little charcoal or other evidence of burning. Other similar small pits were found around the roundhouse. A large stone with a smoothed surface apparently used for grinding (sf834) lay in the southern half of the roundhouse. It had been shifted, presumably by ploughing and rested within the base of the ploughsoil but it is likely to have been close to its original location.

The layer of small heat fractured stones and charcoal continued outside the structure, as 92819, and seemed to spill out through the entrance, suggesting that much of this deposit was generated inside the roundhouse and discarded or spread out through the entrance. Some of the material might also have been generated outside, as the spread was associated with a hearth (92829), little more than a burnt patch of clay. Posthole 92971 appeared to cut this layer but it is suggested that this appearance is the result of the post being removed and the posthole backfilled. The presence of burnt stone in the backfill supports this. The posthole itself would have predated the burnt spread, which appears to have been at least partially generated inside the roundhouse and thrown out of the door.

Other activity to the west of the roundhouse may have been indicated by a small area of metallurgy (93064) with patches of clay floor surface partially covering it (93062/93063). The metallurgy seemed to have been edged by larger stones (93068), but very little survived. There was also a narrow, shallow, slightly curving gully (93323), too regular to be the animal burrow, but made little sense with the other features in the area. It was not a drainage gully, as it would have run into the entrance of the roundhouse.

To the west was a structure (group 93059) defined by 6 large postholes in 2 parallel rows forming a rectangle 4.0m by 3.6m externally (92969, 92973, 92979, 93052, 93078 and 93079) (plate 122). These postholes measured 0.6 to 0.8m in diameter and 0.25 to 0.4m in depth. They had large stones as post packing with the best preserved (93052 and 93078) having these packing stones still *in situ* wedged upright around the edges of the cut. One posthole (93052) had a large stone lying horizontally across the top of it. This stone (sf845) was 0.7m long and about 0.3m wide at the base. The stone narrowed towards the top and showed no signs of working but could have stood on end as a pillar stone in the posthole. In the middle of the structure were two smaller postholes (92981 and 92983) 0.5m in diameter and no more than 0.22m deep as they were heavily truncated. These also had packing stones. Three much smaller features (92985, 92987 and 92989) also appeared to be postholes, although 92989 had little in the way of packing stones, and may have been related to this structure but were clearly not major structural elements. A more irregular feature to the south-west (93001) lacked any packing stones and was probably not a posthole. This structure was significantly truncated as the post-medieval ditch (90522) cut right through it.



Plate 122. Granary structure 93059 fully excavated, partially cut away by culvert 90522

The postholes almost certainly supported a small timber structure, probably a granary (see discussion below), with the floor suspended above the ground, possibly on stone pillars of which stone sf845 may have been an example. The smaller middle posts may have helped to support this suspended floor. Another granary was built adjacent to structure 93059 (described below) but a layer of stone (92862) associated with this later granary seems to have partially covered the postholes of 93059, showing that 93059 was dismantled during the life of the settlement.

Phase III

During its life the settlement was altered and additions made. Roundhouse E was demolished and roundhouses A and B were altered. More structures were added including roundhouse C in the centre of the settlement. There is no evidence that these changes took place all at the same time so the division into two neat phases is artificial but allows for a description of the alterations.



Plate 123. Wall addition 90556 creating additional width at the entrance to roundhouse A

Roundhouse A

Figure 75 for plan and figure 70 for sections

In roundhouse A 1.3m was added to the thickness of the wall around the north-west arc of the house, giving a probable new internal diameter of about 9.5m. This new wall (90497) had facing stones on both sides and the original wall could have been demolished although it is perhaps more likely that both were used together. This is supported by the southern arc of the wall where the original wall was clearly retained but it was widened in such a way that the entrance was emphasised (figures 71 and 75). At the entrance the wall was made 1m wider but the wall addition (90556) tapered inwards to the south-east so that is probable that the eastern arc of the wall was left at the original thickness (plate 123). This addition may have been for structural reasons but it seems probable that it was mainly to enhance the north-western entrance. It seems that the large porch was still in use but was remodelled. Most of the posts probably remained as the additional wall on the north side seemed to respect the postholes and on the south side the later wall overlaid the fill of slot 92477 but would not have blocked any postholes. It appears that on this side a possible plank facing to the porch was replaced by stone. Two adjacent, stone-lined postholes (90716 and 91396) were probably part of this second phase, as they cut the gravel deposit (90691) that surfaced the original entrance. The postholes partially blocked the original entrance and narrow it to a gap of less than 1m, through which a slab pathway (90984) ran into the roundhouse. This path (90984) was constructed of slabs laid in a line (plate 124). An area of slabs next to the pathway (92274) seems to have been contemporary and paved the area at the mouth of the entrance.

A stone (sf729) used in the remodelling of the southern side of the entrance is of particular interest (plate 125). It is 0.73m long, made of the local schist, with a carved tenon on top and it is suggested that it was a pillar stone from one of the granaries in the southern part of the roundhouse settlement (see below). This suggests that at least one of these granaries was demolished during the earlier phase of the settlement and the stone reused in the new walling.

This new occupation level had a hearth (90632) and several pits and postholes. The gravel flooring layer was replaced (90923) though the limits of the new and the old layer were impossible to define, as they were very similar and could only be defined by their relationships to other features. A feature (90597 and 90595/90570),



*Plate 124.
Slab pathway
(90984)
leading into
the entrance of
roundhouse A*

initially thought to be a drain, curved round the northern arc of the building. This was confused and damaged but the stones in 90597 seemed more likely to be packing for planking or a wattle wall, rather than drain lining, and a hollow with a stone set on edge appeared to be a posthole. This feature was therefore probably a slot for a structure, much like other slots that preceded it in the same part of the house. Additional postholes (90546 and 90574) projecting perpendicularly from the slot add to this impression, though the function of the structure was not clear. A soil sample from the fill of 90597 contained a significant quantity of charcoal, all oak, which possibly represents the original posts or planks (McKenna, volume 3, part XIX.3).

Also built against the new facing on the south-west arc of the wall was a small rectangular stone structure (90579). This was constructed of roughly laid flat stones up to 0.4m long but it directly overlaid a foundation trench (90679) up to 0.27m deep (plate 126), so it is likely that this structure was originally built of wooden posts, before being converted to stone. This was probably not a tank because it was not lined and had no base slabs but it might have formed the foundation for a piece of fitted furniture.



*Plate 125. Pillar
stone from a
granary (sf729)
in situ built into
the entrance of
roundhouse A*



Plate 126. Foundation trench 90679 forming internal structure in roundhouse A

The cobbled passageway leading to roundhouse A was resurfaced with cobbles as well as the slab path (90984), sealing the collapsed remains of wall 91293. These cobbles were extended over the two short entrance ditches (92189 and 92210) which had also been infilled with stone. Near the roundhouse some large pits (91452, 91477, 91478, and 91547) cut through the cobbled surface, and further north-west pit 91814 and a few postholes (92220, 92222 and 92284). A stone-capped drain (92397) also cut through the cobbles but this might have belonged with the post-medieval culvert (90522) into which it ran. A line of stone set on edge (92242) and an area of flat slabs (92240/92241) more probably related to the Iron Age activity.

Over the cobbles was a dark silty layer (90794). This was quite rich in charcoal and was sealed by patches of clayey sand (90014 and 90015), which appeared to be attempts to repair the surface. These were in turn sealed under stones (90009) collapsed from wall 90010. Layer 90794 appeared to be soil washed or trampled onto the cobbles during their use. A soil sample from this layer contained significant quantities of charcoal, mainly oak but also willow/poplar. It also contained large quantities of cereal chaff stem fragments, with smaller quantities of spikelet forks and glume bases, and a few cereal grains and weed seeds (McKenna, volume 3, part XIX.4). It is probable that the charcoal was from fuel wood and represents domestic waste deposited in this area. The chaff may also have been used as fuel on a domestic fire, and have originated from crop processing. However, the quantity of material suggests that perhaps there was a bonfire nearby to dispose of old thatch and this demonstrates the use of straw for thatching the roundhouses.

The wall (90010), defining the routeway into roundhouse A on the south-west side, was extended to run past the southern wall of roundhouse A. The extension (91578) was built with fairly small stones, laid horizontally, with only a single course surviving. The late date of this extension is demonstrated by it being built on a considerable depth of deposits over the remains of roundhouse E. It is not clear whether this wall originally turned to abut roundhouse A or continued past the roundhouse. No traces of it were seen further to the south-east.

Roundhouse C

Figures 75 and 76 for plan and figure 77 for sections

Roundhouse B was still in use when a smaller roundhouse was built up against its northern wall. Roundhouse C measured nearly 11m externally and c. 7.6m internally with a wall up to 1.6m thick (plates 127-129). Much of the wall (90012) had been removed by stone robbing but the inner face of the southern arc survived to a height of 0.45m. This was because the house was terraced into deposits relating to roundhouse B on this side with the outer face of the wall on the contemporary ground surface and much of the middle and face of the wall in the terrace cut. The outer face of the wall was indicated only by occasional small stones and part of the north-eastern arc of the wall had been entirely robbed out. The roundhouse wall butted roundhouse B on one side and wall (90010) on the other. The entrance area was confused but there was a gap c.2m wide in the south-east arc of the wall. A wall (92487) abutting roundhouse B was probably contemporary and would have partially blocked the entrance, so that a diversion to the north was necessary to enter the roundhouse. This makes it resemble the snail-shaped building at Bryn y Castell (Crew 1984), used for metal-working. Crew suggested that the shape might have been used to control drafts to the smithing hearth. While roundhouse C did not produce enough material to indicate a smithy inside the house was the only one to produce metal-working debris. Small quantities of slag and burnt clay with

vitrified surfaces came from the second phase of flooring (91516) and from the fill of a posthole (91529), also belonging to the second phase of use. However there was also part of a small smithing hearth cake from a levelling layer (91926), beneath the floors of the roundhouse. This presumably came from elsewhere and was dumped in the levelling layer, and may be contemporary with the first phase of use of roundhouse B. It is possible that the material from the later floor was also redeposited from earlier waste located near where the floor material was obtained. Smithing cannot therefore be demonstrated to have taken place in roundhouse C but there is a hint of smithing somewhere around the settlement, probably during its earlier phase. The shape of roundhouse C cannot be attributed to the needs of a smithy. A structure at Braich y Dinas, Penmaenmawr had a similar entrance with off-set walls, but this was a sub-division of, or alteration to, an earlier roundhouse and does not contribute to the understanding of roundhouse C (Hughes 1912, 172).



Plate 127. Roundhouse settlement under excavation with roundhouse C in foreground, opposing quadrants excavated

Roundhouse C had a sequence of floor layers starting with a clay floor with cobbles (91922/91923), which survived mainly in the southern part of the building. This was not directly related to any cut features but did have a cylindrical stone with a central hole (sf574) set upright within it towards the middle of the building (plate 130). This was close to where a central clay hearth (91624/91708/91709) was constructed, but the stone was largely covered by the layer of gravel on which the hearth rested. It is possible that there had been some slight slumping and the gravel was built up to the top of the stone, which could possibly have been used to hold a post next to the hearth. The red-brown gravel (91626) covered most of the interior of the roundhouse and had postholes, stakeholes and pits cut through it in the western part of the house. Another gravel deposit (91679) partially covered the central hearth. A pit (91433), a little west of the centre of the building, cut through this floor layer. It had a large flat slab mostly filling it, over which was a layer of charcoal (91434). Although no obvious traces of burning were seen on the slab or the cut of the pit it seems likely that this was a hearth and replaced the first hearth. This in turn was covered by other floor layers, including 91289 and 91471, which appeared as extensive patches of clay (91289 and 91471). Many of the pits inside the building seemed to belong to this later phase, including a group of postholes near the entrance, but there was no obvious hearth associated with this phase.

On the upper deposits inside roundhouse C was the basal course of a short section of wall (90054) only 2m long with a northern face and some core stones remaining (plate 131). Next to this was an elongated pit (91431). Both these features were probably traces of later use of the area but it is not impossible that they represent the final use of the roundhouse with a new structural addition.



Plate 128. North-west quadrant of roundhouse C showing wall and upper floor layer



Plate 129. South-west quadrant of roundhouse C excavated down to first floor layer



Plate 130. Cylindrical stone with a central hole (sf574) in situ in roundhouse C



Plate 131. Roundhouse C as first exposed showing upper floor layer and wall 90054

Roundhouse B

Figure 76 for plan and figure 72 for sections

Roundhouse B itself was also altered. Like roundhouse A additional width was added to its wall on the inside (plate 132). This was a tapering addition like that on the south side of roundhouse A and added c.1.25m to the width of the wall at the entrance. A stone slab (92548) set on edge defined the face of the wall in the entranceway and stones laid flat formed the lowest course of the inner face (90805). Behind this was a jumble of stones forming the wall core (90807). This overlay the paved area previously existing in this area. Related to the new wall was a deposit up to 0.25m deep across most of the building interior. This was a yellowish brown gravelly clay (90882/3) and represented a new floor level. A hearth stone (92234) lay on this surrounded by a clayey deposit (90806). This later hearth was more off centre than the earlier one and would have been quite close to the south-east wall and entrance. It is assumed that this entrance was in use during phase III, as it would have been particularly useful for access to roundhouse C.

It is possible that the wall of roundhouse B was widened again because a curving line of stones 90847 resembled 90805 and could be a wall face. However this would give a very wide wall for a very small interior and there is no evidence of a similar reduction in the area of internal activity. Alternatively 90847 could have been the edge of a stone platform as there were flat slabs between it and the wall. A stony deposit (90875) extended over much of the northern arc of the house. This was defined on its southern edge by another curving line of slabs (90985). The slabs were initially thought to be drain covers but there proved to be no drain beneath them suggesting that they were a sort of interior path. The stone 90875 was not quite regular enough to be described as a surface though it contained several large flat slabs but it respected 90985 and was at a similar level. It was also limited on the south-eastern end by a feature (91780), which appears to have been a slot to support a timber partition. Feature 91780 was not well defined and only seen clearly at a low level but the alignment of stones in it was detected at the level of 90875 and none of the stones of that layer covered this feature. The stones in 91780 were set along the sides of the linear feature as if to pack a timber horizontal beam or wide planks. These features seemed to form a slightly raised, stone-based platform in the northern part of the house. A posthole (91914) held a post that would probably have projected through this platform. Two nearly parallel elongated features (91466 and 91521) just inside the south-east entrance may have been foundation slots to hold a small structure.

It is assumed that the pathway from roundhouse B was still in use in this phase. Next to the pathway and partially sealing the granary structure (93004) was a layer of cobbling (92633). On top of and set within this were some stones (92728), some of which may have been the remains of a wall face. If this was a wall it was probably straight but so little remains that it is impossible to say much about this feature.



Plate 132. Wall of roundhouse B showing various additions

Structure D

Figure 75

To the north-west of roundhouse A were the remains of a small stone building. This was initially referred to as roundhouse D but as it seems not to have been a domestic dwelling it is now referred to as structure D. Only a short arc of the wall survived (90464), about 4.5m long and 1.1m wide (plate 133). This was built with large facing slabs of schist up to 0.5m long, with a rubble core, and the wall probably indicated a circular building. The wall survived to a height of up to 0.5m. A fragment of possible stone walling (90641) to the south-west might have been part of the same structure but if so it was not perfectly round. Several postholes inside the area of the structure were probably related to it. Postholes 90636, 90649, 90678 and 90694 were approximately in a line running radially from close to the centre to near where the wall would have been. Posthole 90694, the largest at about 0.8m in diameter, might have supported a central post. Other features are less confidently linked to the structure. Feature 91176 lay on the proposed line of the wall and as it lay directly under the ploughsoil it could be from a much later date. Feature 90665 would also have been on the proposed wall line and might be earlier than the structure. Pits 90459 and 90623 fell within the structure and could be contemporary with it.



Plate 133. Surviving fragment of wall (90464) of structure D

The postholes were probably dug through the old ground surface (90473) over the early platform (90573), though some of the postholes were difficult to see within that deposit. In the northern part of the structure 90473 was overlain by an irregular patch of yellow clay (90465), which almost certainly was the remains of a floor and seemed to be contemporary with the postholes, although there was no direct relationship between them. The floor did seem to have built up against the wall of the structure.

This building had no central hearth and few pits inside, so it is probable that it did not have a primarily domestic function. The pits found in this area were not restricted to the interior of the proposed sub-circular structure, so either the building was of a different shape, there was a large gap in the south-eastern side, which seems possible, or some of the pits were unrelated to the building.

The curve on wall 90464 suggests a circular structure with an interior about 7m in diameter, which would also include 90641.

Over the middle of structure D was a layer of collapse or demolition rubble (90309). This contained a 17th century blackware sherd (sf179), possibly suggesting a late date for the collapse of the walls. However most of the walls have been robbed out and this layer may just relate to stone robbing of collapsed material as well as *in situ* walling.

There is no secure reason to allocate structure D to phase III rather than phase II and either was equally possible. The wall of structure D was originally thought to be built over the slab wall 90120, but this relationship has been reinterpreted and the slab wall was probably post-medieval in date (see above). Stone deposits built up against wall 90464 (e.g. 90118 and 90229) were probably levelling deposits for the overlying post-medieval activity (figure 119.2).

Immediately to the north-west but separated from structure D by the later culvert were five fairly substantial postholes (90910, 90938, 91075, 91076 and 91078), measuring up to 0.85m in diameter and up to 0.34m deep, and also a smaller posthole (91079), 0.18m and 0.1m deep. The latter contained a piece of furnace lining (sf2097). The cuts of these were difficult to see in the deposits they cut through and the stratigraphic relationships of 90938 were particularly uncertain but it seems likely to be associated with the others. These were associated with a linear feature (90739), 5.3m long and 0.6m wide. The line of this was rather irregular but it contained stones, some set on edge like packing stones, and was possibly a foundation slot for a slight wattle wall, similar to that defining structure F. There was also a small segment of possible stone walling (90586), 1.34m long and 0.5m wide. This had schist stones, in places in two courses, but no facing stones and could be the remains of a wall core. A compact orange clay and gravel layer (90584) sealed the postholes. It is possible that this represents the remains of the floor, eroded after abandonment and so spreading over the posthole fills.

If this formed a structure (group 94024) it was possibly rectangular but its plan is hard to discern. A shallow pit (90892) to the west and two small postholes (91123 and 91125) to the south might also be associated with this activity. The postholes of this possible structure were cut into a silty deposit (90855) up to 0.2m deep, which was a continuation of the old ground surface 90473 under structure D, but this is not sufficient to date them to the same phase of activity.

To the south-west of structure D was a posthole (91007), about 0.6m in diameter with a postpipe (90998) 0.27m in diameter. This may have been associated with structure D, but there was no stratigraphic link. Near this there was also an irregular pit (90974/91762), measuring 1.8m by 1.6m and 0.5m deep. This was recorded as having numerous recuts but it seems more likely that it just had varied fills with odd dumps of redeposited natural. This pit is late in the sequence, and produced only a flint (sf559) that had probably been fractured accidentally, so there is little evidence that this was associated with the roundhouse settlement.

C-plan structures: possible granaries

Figure 65 and 76

There were two structures that were not well dated and that did not fit well-known plans of structures expected on Iron Age settlement sites. These structures (structure 93073 and 94016) lay at opposite sides of the settlement; structure 93073 on the east side and structure 94016 on the west (figure 65), but they shared some features. They were defined by large, very closely spaced postholes laid-out in an arc with one side open, so forming a rough C-shape in plan. They also each had a small adjacent area of cobbling. Measuring the longest distance across the postholes structure 94016 measured about 4.0m by 3.5m and structure 93073 measured about 5.5m by 3.8m.

Structure 94016 (figure 76) was defined by an arc of large 5 postholes (92783, 92784, 92836, 92849, and 92876). Though containing many stones 92836 and 92849 were not definitely postholes but may have been disturbed.



Plate 134. Cobbled floor (92469) and slot (92467), part of structure 94016

Features 92783, 92784 and 92876 had packing stones and were clearly postholes with the latter being entirely undisturbed and having large stones forming a stone setting that would have held a post 0.5m in diameter. These features were between 0.6m and 1.5m across, the larger ones being the most disturbed, and 0.3m to 0.6m deep, with the exception of 92849, which was particularly shallow at 0.14m. A carefully made stone setting in nearby feature 92852 may also have held a post, as might the stone-filled pit 92780.

Next to the arc of postholes was a well-made cobble floor (92469) covering a rectangular area 2.6m by 1.8m and aligned south-west to north-east (plate 134). It was composed of densely packed small cobbles with some larger slabs. The north-western side was defined by a foundation slot (92467) packed with stones on edge, which presumably held a plank or stake wall. This seems to have continued round the north-eastern side of the structure but was covered by some flat stones and the wall may have been of a slightly different character here. A rough line of stones 92470 heading north-east may have been the remains of a wall continuing from the end of the slot. A spread of stone (92597) running south-east from the north-eastern side of this group of features may have been a stone surface associated with them.

The well-made cobbled floor with this structure led during excavation to the assumption that it was of post-medieval date. Some post-medieval finds were recovered from the area but all either came from over the structure or from ploughsoil over the stone spread (92597). However, this spread also produced a spindle whorl (sf780) and another (sf2261) was found during evaluation trenching in ploughsoil cleaned from over this area in trench 8. The fills of the postholes were no darker than other Iron Age features and contained no artefacts. Samples were taken from these fills but no identifiable charcoal was recovered so radiocarbon dating was not possible. The interpretation of this structure as belonging to the Iron Age settlement must remain speculative but would be difficult to explain as a post-medieval agricultural feature. However, a kink in the boundary shown on the 1769 estate map suggests that there may have been a post-medieval building in this location so the identification of this structure with the Iron Age settlement cannot be taken as unproblematic.

The identification of this feature as a gatehouse is far from certain and a building reconstructed from the remains does not seem particularly suited to this function. An alternative interpretation of this structure might be as a granary. There were several rectangular granaries on the site (as discussed below) with closely spaced, large postholes. These were often also close to cobbled surface. Structure 94016 was a similar sized to these features and had a small area of cobbling. Its closely spaced posts could have supported a considerable weight as required for a granary with a heavy load of grain.

To the east of roundhouse E a considerable depth of silt had built-up over the lower platform stones until it reached a level with the floor of roundhouse E (figure 69.3). These deposits (e.g. 91827) were very mixed and mottled and could have been more deliberate dumping. Numerous features were dug into this deposit. It is very difficult to date these or assign them to a phase but they could be contemporary with one phase of the settlement. The main feature in this area was structure 93073, which was composed of an arc of substantial postholes, measuring about 5m in diameter externally, just south of the south-eastern entrance to roundhouse E (figure 65 and 68). The postholes (92134, 92206, 93069, 93070, 93072, and 94035) measured up to 1.15m by 0.8m and they were originally up to 0.6m deep. Feature 93072 was rather longer than the others at 1.7m long and seems to have been two postholes merged together. Most of the postholes had large packing stones and 94035 was filled with large stones, which appeared more like a post-pad than packing stones. Inside the arc was a feature (93071) of similar dimensions to the postholes (0.9m by 0.6m) but only 0.16m deep and lacking in packing stones, so this appears to have been a small pit. The arc of postholes may have been open on the north-east side, although it was disturbed by the foundations for a later wall (91509) so this is not certain. However the structure almost seems to have respected the wall and the possibility cannot be entirely ruled out that they were actually contemporary, making the postholes possibly 18th century in date rather than Iron Age.

Immediately to the west of the structure was a rectangular area of cobbling (91474) measuring 5.0m by 1.8m with a neat kerb of carefully laid cobbles on its southern edge. This does seem to be functionally contemporary with the postholes, although posthole 92134 did cut through the edge of the spread. Pits 92528 and 92207 immediately to the west were probably associated with the activity, but a small pit (92409) sealed under the cobbles must indicate earlier activity. A slight area of burning (91579), little more than heat-reddened silt, may have indicated a basic hearth to the south of structure 93073. Some fragments of pottery from this hearth were considered to be possibly Middle Bronze Age from their fabric (sf766), but this is likely to be residual.

The settlement included several rectangular and square features that are interpreted as granaries (see discussion

below). These are of a type commonly found on other Iron Age settlements but structures 93073 and 94016 also had similar characteristics as they were of a similar small size with large postholes located very close together. The large size of the postholes, and therefore presumably the posts, with their close positioning suggest that they supported a considerable weight, as argued for the rectangular granaries. Many of the conventional granary structures were associated with cobbled surfaces and both of these structures had cobbled surfaces associated with them. Both structures were roughly C-shape in plan, in contrast to the rectangular granaries, but would function in a similar way to support a timber platform on which a superstructure could be built. It is therefore suggested that these were probably a slightly different style of granary or other storage structure.

It has been noted that roundhouse B had a conventional granary structure located close to the pathway leading to its entrance. This position would have both kept the grain conveniently close for use but also would have displayed the prosperity of the settlement to visitors. The projected line of the pathway from roundhouse B would have run along the north-eastern side of the stone surface 92597 next to structure 94016. If this was also a granary it would have enhanced this element of display and this relationship supports an Iron Age date for the structure.

Roundhouse I and the southern area

Figure 78

It is not certain if later developments inside roundhouse I are strictly part of phase III but they may fit with later activity outside the roundhouse so they are included here. The intercutting pits (group 93443) in the middle of the roundhouse were sealed over by a very mixed silt deposit with patches of burning on its surface (92946) that may have been a floor surface. Other small pits then cut this layer but again there was no evidence of a hearth in the middle of the roundhouse.

The post in posthole 93523 continued to be used; layer 92946 had built up round the post creating a post pipe (92947) which survived when the post rotted away. Next to 93523 but cutting 92946 was a similar posthole (93367) with a post pad and a surviving post pipe. As these post pipes are around 0.6m in diameter they represent very significant posts, but their off-centre position makes it difficult to envisage them as structural elements. The postpipe visible in 93523 suggests that the post was left to rot *in situ*, and was not pulled out when the post was inserted into 93367, so these two posts were in use together. The post pads in the base of these postholes, to stop the posts sinking, suggest that they carried some weight, but there was no more than 1.2m between the centres of the two posts. About 2m to the south was another large posthole (93080), which had stones lining the cut but no post pad and a post pipe only 0.3m in diameter. The function of these posts is far from clear.

Immediately east of roundhouse I were four large circular postholes (93449, 93452, 93455, and 93474; Group 93477), measuring between 0.8 and 1.0m in diameter and 0.24 to 0.32m deep (plate 135). These cut a pale silty layer (93505), which covered the short section of wall (93515) described above, which must have been largely collapsed and probably robbed out before the postholes were dug. In each posthole a large slab rested just below the surface. These were placed horizontally and one of the pad stones (sf5412 in cut 93455 (plate 136)) had a pecked cupmark on its upper surface. These slabs rested on lower stones. In 93474 this included another slab underneath as well as smaller stones lining the cut. The lower stones seemed to have been used to level the main slabs and raise them to the required level. These holes were therefore to contain post pads rather than being



Plate 135. Structure 93477; four post structure with large post pads in the postholes



Plate 136. Cupmarked stone in base of posthole 93455

postholes themselves. The need for the post pads was due to this being on the very edge of the marsh and over wet and soft ground.

The four postholes presumably supported a four-post timber structure of the type usually interpreted as a granary. Immediately to the west was a patch of gravel (93517), possibly representing a floor surface and a short length of rough walling (93506). This was about 2m long and 0.9m wide and consisted of little more than some small stones indicating the probable wall faces, and could only have been the foundation level of a wall. Other groups of stone (93513 and 93514) may indicate traces of other walls, but these were slight and uncertain.

To the north-west and west of the roundhouse there was considerable activity. A stone spread or cobbled surface (92968/92834) covered much of this area. It was thought that this stone surface might indicate the abandonment of the roundhouse as it overlapped the northern wall slot. However, it generally respected the curve of the wall and may have built up against the wall. When the wall was dismantled the stones may have been disturbed and spread over and into the slot and postholes. The southern edge of the stone spread was marked by larger flat stones (93101, 93239), almost forming a kerb. The former continued into the entrance of the roundhouse and were originally thought to block the entrance. However these flat stones seem more appropriate for a threshold than for blocking and it seems likely that the roundhouse was in use and that the stone surface formed a yard to its west.

At the south-western edge of the stone spread was another granary structure (group 93003) (plate 137). The stone layer seems to respect the northern side of this structure with some kerb stones (92864) marking the edge of the stones and possibly providing a hard surface for access to the granary. The structure 93003 was very similar to group 93059 with 6 large postholes and two smaller ones in the middle. The six major postholes (93044, 93042, 93040, 93056, 93054, and 93050) had substantial packing stones (plate 138) and defined a structure measuring 3.6 by 3.5m externally. Between the southern 2 pairs of postholes were additional posts (93048, 93046) presumably to support the floor of the structure. The small patch of cobbling (93271) may represent the continuation of the



Plate 137. Structure 93003 fully excavated

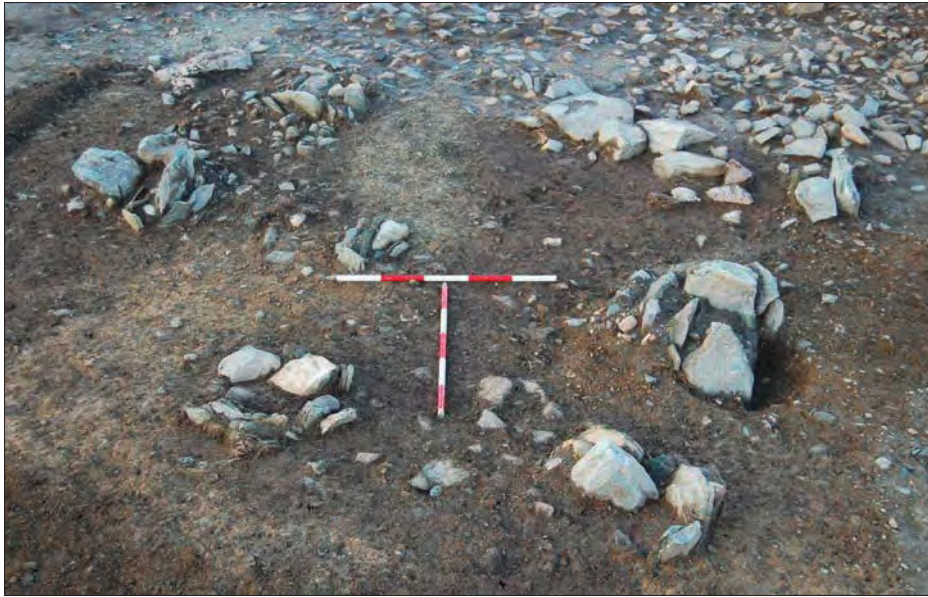


Plate 138. Structure 93003 prior to excavation showing large packing stones in the postholes

stone surface under the granary with a patch of clay (93270) overlying this.

The stone surface (92968/92834) separated the two granaries chronologically as it covered some postholes of structure 93059, whereas it is argued that structure 93003 was in use with the surface. However the time difference might be quite short between the two granaries and both could belong to the same phase. The position of 93003 in relation to the stone surface suggests that it was accessed from the north and that the two intermediary postholes were supporting the back of the floor not the front near the entrance. In this case structure 93059 was accessed from the south-west and was oriented quite differently to the later granary. The presence of a granary on the edge of the stone surface suggests that perhaps the surface was used as a threshing floor.

The relationship of three linear features (92858, 92860 and 93186) to the granary is uncertain, though one of the postholes of the granary cut feature 92860 and 92858 was exactly parallel to this and therefore probably contemporary. These two features at least seem to have pre-dated the granary. Feature 92858 was 0.35m deep while 92860 was only 0.13m deep. Feature 93186 was also very shallow at 0.15m deep and was straighter than the other s and at a slightly different angle. As this was only covered by ploughsoil it could a late feature, possibly a plough furrow and not related to the Iron Age settlement.

To the north of the stone area (92834/92862) were the remains of a structure that could also have been in use with the surface. This structure could possibly have been a small roundhouse and was referred to during the excavations are roundhouse H. It had a very fragmentary wall (92833/92872), 1.2m wide and faced where it survived best but largely lost. The curve of the wall would give a structure with an external diameter of nearly 9m and an internal one of c.6.5m, though the fragmentary remains make these measurements highly conjectural. A few stone slabs (92878) to the north lie on this circle and could have been part of the wall. Although if the adjacent hearth (92904) was related to the roundhouse its diameter would have to have been either smaller or larger than suggested. The hearth was about 2m long and was an area of burning on what appeared to be a deliberately made clay surface.



Plate 139. Iron object sf814 in situ

This deposit contained a small thumbnail scraper (sf 820), possibly indicating a Bronze Age date for the deposit, although the scraper might have been incorporated when the clay was dug up to create the hearth.

Inside the roundhouse was a floor deposit composed of heat altered silts (92822/92875) which was cut by a large posthole with substantial packing stones (92909), measuring 1.0m by 0.6m and 0.5m deep. The floor deposits contained the fragmentary remains of a long thin iron object (sf 814-816) (plate 139). The packing in large posthole 92909 indicated that it held a post c.0.3m in diameter yet it was off centre in the house and no other similar posts indicated a post ring. Despite its size this post therefore seems not to have been structural. Two smaller postholes (92908, 92912) in the south-west arc of the building may be related to an entrance. They were associated with two smaller features (93291, 93296) disturbed by animal burrowing but still convincing as postholes. Another posthole (93066) fell on the projected line of the outer face of the wall and may be related to an entrance structure. The relationship of this posthole to the stone surface was not clear but it is likely that it cut the surface. The presence of a doorway on this side might be supported by the discovery in the evaluation (trench 9) of a possible door socket stone from a pit (903) not far from the location of the proposed entrance.

Small pits 92911 and 94020 give little indication of function. Hollow 92910 may just have been erosion of the floor layer but it was cut by pit 94020.

Posthole 93066 seemed to cut the stone spread and the wall line overlaps this spread so it is possible that roundhouse H post-dated the stone spread. However, as stone spreads elsewhere were laid down in preparation for building, the same may have occurred here and the stratigraphic relationship may not have much chronological significance.

Possible Roman Activity

No Roman artefacts were recovered from sealed contexts within the roundhouse settlement. Two 2nd century sherds were recovered from the evaluation trench over the area of the rectangular structure 94019 and granary 93004. A melon bead was found in the initial cleaning for the area excavations just east of roundhouse B. These finds might indicate Roman activity in the vicinity but do not suggest a Roman phase for the main settlement. Finds from evaluation trenches in Area K5 to the north suggest the presence of a Roman period settlement. Excavation in Area K9 revealed a Roman period building complex, so the indication is that in the Roman period the settlement focus moved to the north. A circular structure (structure F) on the northern edge of Area B2 was initially assumed to be of Roman date due to a Roman pot sherd found over it, but radiocarbon dates, though confusing, may suggest that it was much the same date as the main settlement. There were also other features further south in Area F1 for which a Roman period date might be suggested, although dating evidence is extremely slim. The existence of Roman period activity in this area is therefore in some doubt.

Structure F and the northern area

Figure 79

To the north of the roundhouse settlement, next to Lôn Trefignath, were the remains of another circular structure but of a much lighter construction than the Iron Age roundhouses. This is referred to as Structure F and it was defined by a narrow foundation slot (90551) probably for a wattle and daub or possibly a plank wall, with packing stones to support the stakes or planks forming the wall, probably about 8m internal diameter. The cut for this slot proved to be almost impossible to see so it could only be followed where stones were present. In the south-western arc there was a gap with no obvious packing stones and it is possible that there was a genuine break in the slot here, possibly for an entrance. However there were no postholes to support a door, and it is perhaps more likely that packing stones had been lost from this area and the slot was not visible, but had continued. A group of stones (90578) appeared to represent similar packing stones in a short slot running into the interior of the structure (plate 140).

Inside the structure most of the features were postholes. No post ring was evident but there was a north-west-south-east alignment of postholes (90845, 90770, 90779, 90720, and 90523). The postholes were up to 0.45m in diameter and up to 0.20m deep. Some of these postholes were sealed by a slab surface (90303/90502), composed of slabs up to 0.6m in length. The postholes under the slab surface (90741, 90768, 90770, 90777, 90845) were completely sealed under the slabs and could not have been in use with the surface. This implies two phases of use in this area, but the postholes and other features form a coherent group and the slabs may have been a later phase with no relationship to the use of the structure. The slab surface was associated with a probable pivot stone (sf239), but if this was *in situ* and represented one side of a door the other side and the wall it gave access through seem not to have survived. Alternatively it may originally have been part of structure F and it could have been



Plate 140. Structure F with stone layer (90498) in foreground

redeposited when the slabs were laid-down.

A sub-rectangular pit (90606) was roughly lined with stone slabs (90552) to create a trough measuring about 0.7m long internally. Near this was an area with a sequence of deposits (90441 and 90446-90449) (figure 79.3). Some of these were pale and leached and were initially interpreted as “ashy” and 90447 was a thin charcoal-rich lens. In the top of these deposits were some lumps of burnt clay, including a large lump a strongly heat-reddened lump of burnt clay (90437) in the middle. The burnt clay, charcoal lens and “ashy” appearance of the deposits led to the suggestion that this was a hearth. However, apart from 90447 there was very little charcoal. A posthole (90440) cut through the main fill of this hollow but was sealed by the burnt clay lump (90437). This suggests that the burnt clay was quite separate from the other layers. Micromorphology of the deposits (Lewis current report, vol 3, part XXI) suggest a sequence of soily deposits building up in the hollow but give very little suggestion of this being a hearth. There is even some suggestion of tilling in the lower layers. It is possible that this shallow hollow was a tree-throw hole or similar natural feature. However activity over the top of this was genuine as the lump of burnt clay (90437) contained slag, including a fragment of smithing hearth cake, and vitrified clay suggestive of smithing (sf446). This small feature may be the remains of a smithing hearth or material dumped from one.

Below hollow 90454 was a layer 0.2m deep (90450) which represented the old ground surface over this area. Micromorphological analysis suggests that this was a once stable land surface, possibly under forest, that was later disturbed, certainly by worm sorting and possibly by ploughing, so structure F may have been built on part of an earlier ploughed field.

Over much of the area of structure F was a compact yellow grey silty clay (90501). Over this were other clayey layers, 90299 mainly over structure F and 90300, which was a more general layer, extending further south. The latter two of these layers were assumed to be post-medieval in date, but there is no reason why this should be so. The concentration of clay over the area of structure F suggests that these layers may have been the remains of a clay or wattle and daub wall that have collapsed and been eroded by weathering.

Immediately south of structure F were six large stones and other smaller ones placed in approximate arc (90894). If these were the remains of structure it was very fragmentary. Running up to and respecting these stones was a thin but densely packed spread of small stones (90498). These stones were evenly distributed but embedded directly in the surface of the natural clay with no trace of a buried soil (figures 79.1 and 2). The stones continued almost to structure F, but no direct relationships between the structure and the stony layer were established. The stones extended east as far as a large 19th century culvert (90066), which cut them away. They were not seen to the east of this culvert. Sondages showed that the stones continued to the south under what appeared to be a buried

soil horizon (91041). The stone layer was initially interpreted as a deliberately laid surface, but there were doubts about this interpretation due to the extent of the layer, the way that the stones were embedded into the natural clay, and the relationship to layer 91041. As micromorphological evidence suggests the possibility of ploughing prior to the construction of structure F it seems likely that this layer of stones is the result of plough-sorting; ploughing can result in stones descending through the soil and collecting at the base of the ploughing level. So while this layer is anthropogenic it was not deliberately created and the activity that created it probably pre-dated structure F but the way that the stone layer seemed to respect structure F could indicate ploughing while the building was still standing.

Cutting through the stone layer and the overlying deposits were two rather grave-shaped pits (90320 and 90406) with loose stony fills in the bases, which are assumed to be related to the post-medieval activity in this area.

Further south were several postholes and possible postholes (91103, 91094, 91096, 91085, 91071, 91092, and 91118) associated with a small hearth (91047). The postholes were about 0.6m in diameter, though some were more square than circular, and up to 0.2m deep. Most of these form two parallel lines although the postholes are not paired as would be expected if they supported a building. The postholes were truncated but stones within many of them appeared to be post-packing stones. The hearth was an area of burnt clay measuring 1.4m by 1.0m. The hearth lay on a thin, stony colluvium or buried soil layer (91041/90133) and the postholes were cut through this or equivalent layers, which over lay the stony layer (90498) (figure 79.2). If the buried soil and stony layer were the result of the same ploughing that may have extended under structure F then this activity is later could have been contemporary with structure F, but if the ploughing was contemporary with the structure then these features could have been much later than structure F. The hearth and the two lines of postholes were cut by a shallow linear feature (90116), possibly post-medieval in date. There were no datable finds from these features, so their date must remain uncertain.

Just to the south were several small postholes (90131, 90197, 90199, 90205 and 90207), with a pit (90216) nearby. The postholes were about 0.2m in diameter, with 90205 larger at 0.5m diameter. Some of these were sealed under post-medieval deposits. Posthole 90131 contained a piece of vitrified slag (sf6354) and 90205 had a possible whetstone (sf127). Again it is difficult to be sure of the phasing of these features, especially with post-medieval activity also found in this area.

The date of structure F

A rim sherd of a 2nd century AD Black Burnished Ware jar (sf193) was recovered from the clay deposit (90300) over structure F and part of a polished shale bangle (sf275) from the base of clay deposit 90501 near the trough inside the structure. If the clay deposits over this area can be interpreted as originating from the walls of the structure the pot sherd could be related to the building of the structure. The bangle is also of a type that is typically Roman period in date and seems to have been related to the use of the structure.

Three rather roughly made spindle whorls (sf 132, 189 and 219) also came from the clay deposits but it seems highly likely that these were used in the structure. This suggests a domestic function for the structure and links it with the use of spindle whorls in the main settlement. There were also various pebbles with traces of hammering and grinding from within the structure, and just outside the structure a substantial stone with a ground surface that may have been a working slab (sf264). These also support a domestic function for the structure, despite evidence of some smithing activity inside.

Most of the objects found are similar to the range of objects found in the main settlement and cannot be used to distinguish structure F as later in date. To try to resolve the date of this structure radiocarbon dates were obtained, but as there were few contexts that produced datable material the number of these dates was limited. The dates are from a posthole in the middle of structure F and are both on charred cereal grains, but they are confusing; one is Iron Age (370-200 cal BC (SUERC-83306)) and one is Bronze Age (1390-1130 cal BC (SUERC-83307)). An attempt to obtain another date failed as the sample had insufficient carbon. It is surprising that a charred cereal grain has survived from the Bronze Age if the structure is Iron Age, while the Iron Age grain could be intrusive from the main settlement. Neither date supports the Roman period date suggested by the pot sherd and bracelet. It might be suggested that these are intrusive from the possible Roman period settlement in Area K5. The structure perhaps fits best as being contemporary with the main settlement, but it must really be considered as being undated.

Western area

Figure 80

Features in the south-eastern corner of Area E and the western part of Area F1 seemed to form a zone of activity, though they had no diagnostic artefacts and were difficult to assign to a phase. One feature may have been a smithing hearth dating it to the Iron Age at the earliest, and another feature was a stone trough, which, as discussed below, might indicate a Roman period date. The features formed a linear spread with groups of features possibly linked by ditches, but it was difficult to determine securely which of these features are associated and their date must be considered as highly speculative.

In Area F1, to the west of the large modern pit (94014), was a stone spread (93024) with a broad, straight wall (93027) defining the southern side (group 93308) (plate 141). South of the wall was the arc of a possible circular wall (93295) and a stone-lined trough (93253, in cut 93254). These were associated with a sequence of deposits under and against the wall. Post-medieval pottery was recovered from the stone spread but only hammerstones were recovered from the more complex deposits to the south of the wall. It appeared that the straight wall was essentially contemporary with the curving wall and related deposits. The straight wall was much broader than the late field boundary walls and no trace of the wall turning or continuing were found. It is probable that the wall was the south side of a rectangular building; the stone spread being a disturbed deposit over its interior. It is assumed that this building was largely robbed out to build the later field walls. It would appear that this structure was very substantial and had a circular or apsidal structure attached to its southern side. The stone trough was initially thought to be a burial cist but there was no proof of this.

The trough measured 0.49m by 0.35m and was up to 0.38m deep. It was formed by slabs set on edge around the sides of a rectangular cut and had a slab for the base (plate 142). The north-western side slab had been pulled loose by ploughing and rested at an angle just outside its original position. The trough had a dark grey brown clayey silt (93255) in its base with the rest of the feature backfilled with stones and sandy silt (93256). The primary fill contained small quantities of charcoal but little else to indicate the use of the trough. The charcoal was dominated by oak with a smaller amount of hazel and willow/poplar also present (McKenna, volume 3, part XIX.3).



Plate 141. Group 93308 with wall 93027, kerb arc 93295 and trough 93253



Plate 142. Stone lined trough 93253

Adjacent to the trough were two small slots with packing stones (93375 and 93377) possibly holding structures relating to the use of the trough. An area of flat stones (93294) seemed to represent the remains of a stone surface. A posthole (93285) was located next to the wall arc (93295). This formed the start of a short line of postholes with 93416 and 93432. The last two were only found after deposits on which the activity took place had been removed but it is likely they related to the trough activity and that they were not identified at a higher level. This is supported by the discovery of the base of posthole 93285 at this lower level, which was here recorded as 93413.

About 6m to the south of group 93308 was a deposit of firm, orange silty clay (93440) into which were embedded flat slabs up to 0.3m in length (93314). It is uncertain if this was a floor related to group 93308 but the stones seemed to be carefully laid and could not easily be explained as a natural deposit.

The foundations of a stone wall found to the north (93097) can be identified on the First Edition OS map (1889). The same wall appears on the 1817 Estate map, at which time it continued to the south after a wall junction and a slightly different layout is shown on the 1768 map. Wall 93027 was aligned differently to any of the mapped boundaries but it might have represented a building in the corner of a field not indicated on the maps. The straightness of wall 93027 might indicate a late date, but its width and construction suggests a different period to the 19th century field walls. At present this activity is dated purely by the presence of the trough. Structure F, which could be Roman period in date (see above) had a similar stone-lined trough and at least two were associated with the activity in Area K9. One of these was also found inside structure 80527, and certainly dated to the Roman period. Troughs on this site therefore may indicate a Roman period date, though a small trough was found in roundhouse E, so this is hardly a secure dating method.

In Area E a large shallow hollow (30082) contained pieces of vitrified hearth wall lining, including some from beside a blowhole. This and a small quantity of hammerscale suggests that the hollow had contained a smithing hearth. It is possible that the sinuous gully (30080/93318) was a flue related to this. A narrow straight gully (93279) also ran towards the hollow (30082), although it faded out before reaching it. At its south-western end 93279 cut a slightly curving linear feature (93275) and was cut by a pit (93281). Feature 93275 and a roughly parallel linear feature (93273) ran roughly north-south and at their southern end the alignment was continued by a roughly linear stone spread (93100). This could have been the remains of a stone bank and contained a pebble that had been used for polishing and hammering. This was similar to finds from group 93308 and it may have been related to this group of features.

To the west of hollow 30082 were several postholes and possible postholes. These occurred in three groups (30099, 30074, 30006, 30008, and 30010), (30012, 30026, 30044, 30029, 30004, 30040, 30031, and 30038) and (30064, 30066, 30068). The first group contained only fairly large postholes varying from 0.24m to 0.7m in diameter and 0.2 to 0.3m in depth. The second group had some large postholes up to 0.7m in diameter and 0.35m deep but also some smaller ones, one only 0.11m deep. The third group had postholes all about the same size, no more than 0.4m in diameter and 0.16m deep. Some had *in situ* post-packing but others had only occasional packing stones or none at all, and these were identified as postholes by their steep sides. None of the groups of postholes had clear patterns or could be easily interpreted as structures. Also in this area was a shallow (0.15m deep) pit (30048) with a figure-of-8-shaped plan. This resembled a corn dryer but at 1.0m long seemed rather small. Unfortunately its fill produced very little charcoal so it cannot be dated nor can its function as a corn dryer be confirmed by charred plant remains.

Other hollows around feature 30082 may be related but they were all shallow and poorly defined. A group of circular and oval pits further west were filled with grey silt and could be entirely unrelated.

Post-medieval activity over Areas B2 and F1

See figures 58 and 118

Running north-north-east to south-south-west across the site was a stone-built culvert (90522). It certainly ran from near structure D, but it may have started further north, and it issued towards the edge of the marsh within Area F1. This feature is fully described below in the Post-medieval section, but its impact on the earlier archaeology was significant. It cut away critical sections of ditch 92799/91445 and divided structure D from the features to the west.

The 1817 estate map shows two small enclosures related to the cottage or small farmstead of Pen y Lôn. These

were marked 87 and 88, with the northern one (enclosure 88) containing a building, presumably the farmhouse or cottage. The 1769 map also shows this cottage, although the boundaries to the enclosures are different. The maps can be related to finds on the ground because the later large culvert (90066) seems to have followed the dog-legged boundary running between the two enclosures. Some of the later features on site are within the area occupied by Pen y Lôn and they were probably related to this farmstead. These are discussed in detail in the post-medieval section below, but it should be noted that while features to the north and east of the culvert (90066) caused little confusion with archaeology of earlier periods, to the south and west of the culvert it was often difficult to securely identify different periods. Particular problems were encountered where stone had been deposited to support a kerbed structure (90051) with a stone circular structure (90113/4) inside interpreted as the remains of a pony gin.

The most prominent feature in Area B2 was a large linear feature (90066), which doglegged across the site running from south to north. This was a stone-built culvert in the base of a deep cut, and was probably constructed in the middle of the 19th century. It is fully described below in the Post-medieval section. Despite its size its impact on earlier archaeology was relatively slight. It must have removed some traces of roundhouse A but it is likely that this was largely robbed out before the culvert was built. Other later ditches also crossed the site but they were not very deep and their impact was generally superficial.

A kink in the boundary of Bonc Dêg Farm shown on the 18th century map indicates that there may have been a building, which would not have lain on Penrhos land so it is not shown in detail on the estate maps. There is no map evidence to suggest that the structure survived into the 19th century, but this could explain the structure 94016 already proposed as a possible Iron Age granary.

Finds

See figure 81 for find distribution

Most of the finds from the settlement were made of stone, with a scatter of artefacts of other materials. Pottery was particularly rare, but there was a scatter of Roman pottery. Two sherds of Roman pottery (sf408 and sf520) were found while cleaning the remains immediately under the ploughsoil. Sf408 was from over roundhouse E and sf520 wall 91578, which extended over roundhouse E. The evaluation trenching also recovered two sherds of Roman pottery from trench 26. One was a sherd of late 2nd century Black Burnished Ware (sf2249) and one was a second century samian sherd (sf2250). These came from over the pathway to roundhouse B (Davidson *et al* 2004, fig 9).

There was also a rim sherd of Black Burnished Ware jar (sf193) from structure F, which it is argued might help date that structure. Perhaps more unexpectedly there were a few Grooved Ware sherds from within the roundhouse settlement. There is a single base sherd (sf 4070) from a small bowl from 91681, a small patch of charcoal on the stone surface outside roundhouse E; a small sherd and other fragments (sf 4316) from a deposit in the first phase of Roundhouse C might and a rim (sf801) from a stone surface associated with granary structure 93004. It is assumed that these are all residual but they do hint at Late Neolithic activity in the general area and some of the pre-roundhouse features might be Late Neolithic.

Pottery that can be confidently linked to the use of the roundhouse settlement is restricted to two conjoining sherds (sf422) found in posthole 91442, in roundhouse E. This is a sherd of a Cheshire Salt Container, linking Parc Cybi to an exchange network covering West Midlands, the Welsh Marches and Wales.

Three sherds of Roman glass from Area B2 add to the slight traces of Roman period activity, but two are from initial cleaning and were probably just present in the ploughsoil and the other was from a small pit or hollow amongst post-medieval activity to the east of the settlement. It is likely that they were all introduced into the ploughsoil from elsewhere within Parc Cybi, possible from a settlement relating the Roman period activity in Area K9. They could have been dumped in midden material as fertilizer on fields established after the roundhouse settlement had long been abandoned. The same probably applies to the Roman pot sherds (with the probable exception of sf193, which was larger and less eroded).

A sherd from a Roman glass prismatic bottle (sf19) was found on the north-western edge of the settlement. This sherd may not represent the import of glass vessels or their contents but could be the result of reusing glass to knap tools, as occurs on some Romano-British sites (Cool, current report, vol 3, part IV). Sf16 was recovered from ploughsoil over the wall of roundhouse A. This was a regular rectangular piece of vessel glass that had been heated and partially melted, possibly for use in bead production. Another piece of Roman glass (sf164) was found

in a small pit (90425) just east of the large culvert (90066). This piece is part of rim of a vessel but may have been reused as a bead. These pieces all suggest that occupants of Parc Cybi in the Roman period were collecting and reusing Roman glass for purposes not intended by its makers (Cool, current report, vol 3, part IV).

A fragment of a blue glass bead (sf5388) found in floor deposits in roundhouse I was probably from the use of the house, although similar beads are found dating from the sixth century BC into the eighth century AD, so this is not a very diagnostic find type (Cool, current report, vol 3, part IV).

The most common find was a variety of pebble and cobble tools. Some were clearly hammerstones and others seem to have been used for grinding, polishing or possibly as whetstones. Some rounded water-worn pebbles seem to have been collected from the beach. A cache of these in roundhouse C indicates that this was a deliberate activity, but it is not clear what the stones might have been used for.

The utilised stone tools from the settlement are numerous and varied and demonstrate a significant level of craft activities in the houses. The types of tools represented seem to show a greater level of activity than expected in a purely domestic, self-sufficient economy. They include chopping, hammering, grinding and polishing as well as two mortars created on cobbles. The presence of some unfinished spindle whorls shows that they were being made and that there were a number of other tools that could have been involved in their production, including working slabs as well as hammers, rubbers and polishers, though there is no evidence of tools for drilling their perforations.

Roundhouse B had an exceptional selection of tools, with over twenty utilised stone tools including an exceptional ten working slabs used mainly for grinding and polishing, as well as smaller polishing stones. This suggests an almost industrial, rather than domestic, scale of activity. Roundhouse I also contained a considerable number of objects, which may indicate a focus of craft activity.

After cobble tools the most numerous find type was spindle whorls, and 33 of these came from the roundhouse settlement. The densest concentration of spindle whorls was from roundhouse E, with 10 and here they were mainly concentrated just inside the eastern entrance, found in pits and postholes. Although this distribution may reflect deposition rather than use it would seem to suggest that spinning took place within the house but in this well-lit area. It also suggests an emphasis on textile manufacturing at the earliest phase of the settlement that decreased later in its history. The number of spindle whorls recovered from the roundhouse settlement as a whole, including a unfinished blanks shows that spindle whorls were being made here. No stone implements were found for drilling the holes in the spindle whorls so it is possible that iron tools were being used. As iron was relatively rare at this period and recyclable it is unlikely to have been discarded.

Larger perforated stone discs of about 100mm diameter have been suggested as being loomweights but they were scattered across the settlement and general found outside the houses. Loomweights should be found in sets inside houses where the looms were used. It therefore seems unlikely that warp-weighted looms were being used in the settlement with weaving presumably being done on other types of looms, such as a back-strap loom. A roughly triangular lump of clay (sf 598) in roundhouse E was suggested as being a clay loomweight but Penelope Walton Rogers inspected this object and thought it unlikely to have been a loomweight. The stone weights might have been used for various purposes, though fishing net-sinkers is a possibility considering the proximity of the coast. One of these weights (sf385) came from posthole 91246 in roundhouse E, where it was in close association with two spindle whorls. It is made of the same stone as the spindle whorls and although about twice the diameter of the average spindle whorl, it seems likely to fit into the same category of object, perhaps used for spinning coarser fibres for cord.

Much larger stones with holes in were more common from clay-walled roundhouse 80248 in Area K7 (see below) but half of one slab about 608mm in diameter (sf751, volume 3 Fig VI.1.8) was built into paving between roundhouses B and C. A stone of that size could be used as a thatch weight, though historic examples of thatch weights are just heavy unperforated slabs, roped around their middle, and if this was its function many more might be expected to have been found. Use as an anchor is also a possibility. A similar large stone (volume 3 Fig VI.1.9) was found at Bonc Dêg Farm in 2007, and this very probably also came from the settlement.

The use of flat slabs with cup marks in needs some consideration, although smaller stones with cupmarks were probably used to create fire with a bow drill. A boulder of igneous rock with a cup mark concavity on opposing faces (sf552) was found in roundhouse B (volume 3 Fig VI.1.11). It seems likely that this object had been used as a kind of anvil or hold fast in which the cup mark provided a rest or a pattern. The stone was found on top of the

stone platform under the roundhouse but it might possibly have been disturbed from the floor layer.

It is surprising that only two mortars and no quern stones were recovered from in and around the settlement. Even if the settlement concentrated on wool production rather than arable they would have imported grain rather than ready ground flour. It could be possible that they were processing their grain elsewhere, or disposed of mortars and quern stones in a ritual manner off site. The presence of granaries on site strongly suggests that grain was important and most likely was ground on site.

The most unexpected finds within the roundhouse settlement were four complete or broken polished stone axes. One of these came from a pit within the area of the Pen y Lôn farmstead and it was accompanied by post-medieval artefacts. The other axes were from within the Iron Age layers of the settlement. Polished stone axes would have been recognised at all periods as being different and possibly correctly identified as made by earlier people. It is likely that these axes were found during ploughing and that in some cases they were thought sufficiently significant to retain them. However it is interesting that there were also two flakes from axes, which may indicate some attempt to reuse them.

A substantial number of knapped stone pieces were found around and within the roundhouse settlement (figure 133). Most of this material was residual in the contexts in which it was found, and no features suggest later use or re-use as part of the Iron Age settlement. The number and range of items suggested that somewhere here was a focus of earlier prehistoric activity. It is likely that most of this material was associated with the Late Neolithic activity under roundhouse A, although there is little that is diagnostic of date. The assemblage is of a domestic nature with little evidence of on-site lithic working.

Woodward and Hughes (2007) analyse finds from the extensive Iron Age settlement at Crick Covert Farm, Northamptonshire, concentrating particularly on the distribution of pottery and bone (*ibid*, 196). This highlights the problems of understanding the finds from Parc Cybi, as there is no Iron Age pottery and relatively little bone, with most that survives being burnt fragments. A find distribution plot is therefore missing much food waste and evidence of containers, which here must have been organic. Woodward and Hughes (2007, 198) suggested that the deposition of finds in specific sectors of ring gullies came from middens nearby. Most of the small burnt bone fragments came from inside the roundhouses where they might be domestic waste incorporated at low levels into floors and pit fills but some came from elsewhere. There were larger pieces of unburnt bone from ditches pre-dating the roundhouses and from a foundation slot part of structure 94019, which will be considered below. Detecting middens was difficult with the lack of pottery and unburnt bone but one deposit is suggested as a midden. This was a patch of dark brownish-black silty clay material (90949) between the wall of roundhouse A and the extended wall through the settlement (91578) (figure 75). This deposit contained charcoal and enough burnt bone to be clearly noticeable during excavation. The bone and tooth fragments were still small and amounted to no more than 24g in total but this was the highest concentration of burnt bone in the settlement and with the charcoal it appears to represent debris from a fire used for cooking. This odd corner just outside the roundhouse entrance would seem to be ideal for the deposition of rubbish and it is easy to imagine a small midden here. Presumably it contained a great many other items, including unburnt bone and other food waste, and perhaps the occasional broken basket, which have all left no trace. However it seems likely that organic material would be disposed of as fuel for the domestic fire.

At the earlier phase of use of roundhouse A there seems also to have been an area rich in charcoal and bone just next to the entrance (91333) (figure 68). This produced 12 small burnt fragments of 'sheep-sized' long bones (sf5509). The charcoal from this deposit was dominated by oak and also included some willow/poplar (McKenna, volume 3, part XIX.3). Another more general scatter of burnt bone fragments was recovered from a layer of cobbling (91710) that formed part of the yard surface to the west of roundhouse E before the construction of roundhouse C. This was not associated with a spread of charcoal, though there was one patch nearby (91681), which oddly contained a sherd of Grooved Ware. However this yard surface might also be a suitable location for waste disposal as long as it did not block access to the main entrance of the house. Once sufficiently accumulated and rotted down these middens were presumably spread on the fields. It seems likely that any midden might have been cleared away once roundhouse E went out of use.

At Cefn Graeanog II three middens were identified, also lacking artefacts apart from in the Roman period phase of the settlement. One midden was just outside the door of house A (Mason and Fasham 1998, 20, 73), in a position similar to that of 90949 to the door of roundhouse A at Parc Cybi. Middens are to be expected in these settlements but it appears that they are difficult to recognise where not highlighted by a concentration of finds and they were

presumably regularly cleared out and the contents spread on the field as fertilizer, so considerable deposits are unlikely to survive.

The charred plant remains recovered from the settlement were dominated by cereal remains, though in most samples chaff was more numerous than cereal grains. A patch of charred material (92118) on the stone platform produced large quantities of charred chaff and it is suggested that this could have come from a straw thatched roof. Other deposits over the cobbled pathway leading to roundhouse A also had high quantities of chaff and could have represented the disposal of old thatch. Most of the cereal remains that could be identified were of wheat, with emmer wheat being the only species represented. Oats and barley appeared at low levels, possibly as weeds in the cereal crop. Arable weed seeds were also present (McKenna, volume 3, part XIX.4).

Dates

The radiocarbon dates, discussed above, have revealed that many of the features originally thought to belong to the first phase of use in roundhouse A were actually from much earlier settlement. Although the dates were obtained only from floor and hearth deposits the relationship of numerous post and stake holes to these and the presence of some substantial postholes sealed under the stone platform in this area strongly argues for most of the lower features inside roundhouse A actually being of Late Neolithic or Beaker period date. This leaves very few features inside roundhouse A contemporary with the first phase of its use.

The dates also revealed a phase of Early Iron Age activity and demonstrated that the stone platform was not built for the stone roundhouses, with the probable exception for the part under roundhouse B. The dates suggest that there was a significant hiatus between the Early Iron Age activity and the building of the stone-walled roundhouses. This hiatus is also supported by soil micromorphological evidence for the development of turf over the stone platform.

The stratigraphy suggested many of the roundhouses had two main phases of use and other changes happened in and around the settlement. These phases have been described above as phases II and III, but it was not clear how coherent these actually were across the settlement. However, modelling of the dates, taking the stratigraphy and phasing into account, showed good agreement between the dates and the two phases, suggesting that this was a genuine division in the history of the settlement as a whole (volume 3 Fig XXIV.27). The stone-walled roundhouses date to the Middle Iron Age. The first phase of use (Phase II) began in 450–245 *cal BC* (95% probability), and probably in either 420–355 *cal BC* (57% probability) or 315–285 *cal BC* (11% probability). The transition between Phases II and III took place in 355–215 *cal BC* (95% probability), and probably in 310–230 *cal BC* (68% probability). Phase III ended in 295–140 *cal BC* (95% probability), and probably in 240–170 *cal BC* (68% probability). The overall duration of the two main phases of occupation is rather similar. Phase II occupation lasted for up to 185 years (95% probability), and probably for 5–120 years (68% probability), while Phase III lasted for up to 160 years (95% probability), and probably for 1–90 years (68% probability) (Hamilton, volume 3 part XXIV).

For the Iron Age this is a good level of precision. The ability to distinguish the two phases in the dates demonstrates that the use of Bayesian modelling incorporating stratigraphic constraints can produce meaningful dating results despite the problems of the calibration curve in this period. The number of alterations and changes within the settlement supports the suggestion from the dates that the whole settlement was in use for about 200 years, with a generalised time period from about 400 to about 200 *cal BC* being consistent with the dates. It is not impossible that it was used for a shorter period but the archaeological remains give the impression of a substantial and long lived settlement. They also indicate that the occupation was continual, with no significant breaks in occupation that might cause the rebuilding of the main dwellings.

Interpretation

This group of roundhouses and other small structures can be seen as a small village, developing over time from a single house to a group of three houses, with a fourth (roundhouse I) at a short distance. The village was further extended by smaller structures that may not have been dwellings, such as structures H and D and possibly structure F, as well as the granaries. The dates show the village to have been used in the Middle Iron Age from about 400 to 200 *BC*, with just hints from roundhouse C and structure F of a possible reoccupation of the area in the Roman period. However the village occupied the site of what may have been a previous, Early Iron Age settlement and was built in a landscape already well-used and domesticated by fields.

The largest roundhouse was about 11 m in diameter in its first phase and all the main roundhouses were of substantial

size, with even the smallest (roundhouse C) being about 7.6m in diameter. Although the settlement was probably not enclosed the substantial stone-built houses suggest a settlement of some significance. This impression is enhanced by the orthostatic wall running through the settlement with its cobbled routeway leading to the large entrance to roundhouse A. The scarcity of features inside this roundhouse, especially in its first phase, supports the suggestion that this building may have had a social or ceremonial rather than a purely domestic function.

Area north-west of roundhouse settlement

Figures 82 and 83

About 7.5m north-east of the end of the main wall through the settlement (90010), where it might have turned to the south-west, was the end of a narrow shallow gully (25047). This gully ran north-north-west to south-south-east straight down the natural slope of a low knoll, before turning more towards the east to fade out at this point near the entrance to the roundhouse settlement (figure 82). It extended for at least 38m, although it was broken, probably where it had been truncated, and was up to 0.6m wide and 0.2m deep. Small gullies joined it part way along, some apparently cutting the main gully and some cut by it. At the northern end the gully faded out close to a group of small pits with charcoal-rich fills (group 25046).

A post-medieval field boundary ran across this area with associated animal burials and other late features but some earlier features were present. There were 4 very shallow scoops (07013, 07011, 06046, and 06044) no more than 0.5m in diameter and less than 0.1m deep. These had charcoal-rich fills and traces of heat alteration in their bases. Although very shallow these might be truncated pits. Nearby was found an undecorated spindle whorl (sf35), possibly linking this activity to the roundhouse settlement.

To the north and east of gully 25047 there was little evidence of activity. A small pit (21190) was undatable and a much larger pit (13019) was probably post-medieval. Features 03010, 03014, 03015 and 14004 were small hollows of little significance, although 03015, which most closely resembled an animal burrow produced a flint flake. However there was a low level scatter of flint and chert including a thumbnail scraper (sf41) and a crude pebble core (sf43). Roughly parallel to the southern end of 25047 was a straight narrow gully (04003), 4.8m by 0.4m and 0.16m deep, filled with stone, especially quartz. It also contained some charcoal, especially towards the base. This feature produced only one small flint flake and its date and function are unknown.

To the south and west of gully 25047 were some larger features, including (06113) measuring 4.4m by 3.9m and 0.6m deep. This was probably a natural hollow in the glacial gravels, largely infilled by natural processes but leaving enough of a hollow to be useful for dumping field stones to remove them from the level of the plough. The only element confusing this interpretation was a small patch of material low down in the feature containing some charcoal and fragments of burnt clay. This was probably the remains of an animal burrow bringing down burnt material originating from scrub clearance, but it is possible that it represents human activity nearby while the hollow was filling in.

Pit 13002 was an elongated rectangular cut measuring 2.25m by 0.65m by 0.4m deep, which resembled a grave cut but was filled with stone. A couple of these stones rested on edge against the cut sides and were thought perhaps to be lining stones. However the other stones were haphazardly dumped in the cut and none were the flat slabs used in the long cist graves. The north-south alignment of the cut also suggested that it was not a grave. It is probable that this was a pit dug quite recently to bury field stones and remove them from the level of the plough. A single tiny flint flake fragment from the fill of this pit was almost certainly residual. An adjacent sub-circular pit (14006) measuring 1.9m by 1.2m by 0.4m deep was certainly for this purpose, and was filled with angular blocks of schist and rounded quartzite boulders. A nearby oval pit (13003) measuring 1.95m by 1.2m by 0.18m deep looked similar but contained fewer stones in the fill. No finds were recovered from these features. A small pit (13007) measuring 0.62m by 0.58m by 0.26m deep produced some broken fragments of chert but these are probably heat fractured rather than knapped.

Pit group 25046 (PRN 31592)

See figure 83

On the top of the low gravel knoll down the eastern side of which gully 25047 ran, was a cluster of small sub-circular pits (group 25046) (SH 25513 80839). The top of this knoll was covered with orange brown fine silt over the glacial gravels. There were 19 pits in a fairly dense group with two outliers to the west and one to the north-east. The pits were on average, 0.5m in diameter. Some were very shallow, not more than 0.06m deep and presumably heavily truncated, but some reached 0.3m in depth. Of these pits all apart from 21196 and 03026 had charcoal-rich fills; however 21196 did contain quantities of burnt clay. Many of the pits had traces of *in situ*

burning, where the edges of the pits were heat-altered to give orange, pink and red colours to the natural silts. Pit 05026 seemed in addition to have a lining of orange burnt clay. Many of the pits contained medium sized stones. While most of these did not show signs of heating, pit 4011 produced 2.14kg of burnt stone and 11019 also contained some burnt stone.

The finds were not numerous and of mixed periods. There were small amounts of metalworking debris, coke and burnt clay in many of the pits. This would be disregarded as background contamination except for the piece of smithing hearth slag (sf5986) from feature 11019, which also had evidence for late disturbance in the form of clay pipe fragments and window glass. There was also nearly 100g of fired clay from pit 21192. Occasional small chert flakes may indicate a prehistoric date and these are supported by a pot sherd (sf 1210) from pit 10001, of probable Middle Bronze Age fabric. This pit also produced a tiny annular bead of translucent deep blue glass. This bead (sf1291) is difficult to date. It could be late Roman, but equally could be seventeenth century, however it is probably not Bronze age (Cool, vol II, part IV). It is so small that it could easily have been introduced to the pit fill by worms at any time. Pit 05026 produced three pieces (less than 1 gram in total) of Cheshire salt container material (sf2067), therefore suggesting an Iron Age date. There were also several flint flakes and a thumbnail scraper (sf028) found in cleaning in the general area. Both prehistoric finds and metalworking debris are widely scattered over the pit group with no clear concentration of activity. Most of the metalworking waste is very small and could easily be intrusive.

Occasional fragments of unidentifiable burnt bone were suggestive of the inclusion of domestic cooking waste and did not indicate the use of the pits for cremations. Twenty one soil samples from the pits produced identifiable charcoal. The quality of the charcoal was poor compared to the rest of the site, probably due to very high temperature burning in the pits. Samples from five pits (06088, 07015, 06090, 10012 and 13012) contained only oak charcoal, and samples from other pits (04017, 08048, 11017 and 11019) were dominated by oak with smaller amounts of willow/poplar and occasionally hazel charcoal. Pits 01001 and 03024 produced three samples each, one of which, in both cases, contained only oak charcoal. However other species were also present in considerable amounts. Two samples from pit 01001 contained charcoal mainly from the *rosaceae* (rose family) and pit 13013 contained only *rosaceae* charcoal. Pit 05039 contained only willow/poplar charcoal, the sample from pit 21192 was dominated by willow/poplar and one sample from pit 03024 contained equal amounts of willow/poplar and oak charcoal. A sample from pit 07057 contained equal amounts of alder and oak charcoal (McKenna, volume 3, part XIX.3).

On the western edge of the pit group was an oval pit (05053) measuring 1.3m by 0.9m but only 0.15m deep. This contained a compacted gravel fill forming a flat surface on which was a deposit of silt containing frequent limpets and periwinkle shells fragments. As shells do not survive well in the soils of this area it is assumed that these indicate a late date for the feature and that this is a post-medieval pit.

About 7m west of the pit group was pit 13013, which was much larger than those in the pit group, at 1.05m by 0.84m and 0.54m deep, but was similar in the traces of burning and charcoal-rich fill in its base. It may be that the pits in the main group were originally of similar dimensions but being on a more prominent location had been truncated by ploughing whereas 13013 had been protected to some extent by the hill slope.

Just south of 13013 was a smaller pit (13011) measuring 0.6 by 0.43m and 0.12m deep. Its fill contained only a small proportion of charcoal but it produced three fragments of pot (possibly Roman) (sf1331) and some flint debitage.

To the north feature 21206 was disregarded as a probable natural hollow or ploughing disturbance. A neat oval pit (21225) to the north-east of the pit group was more convincing. It measured 1.4m by 0.9m and was 0.3m deep. Again it contained little charcoal but did produce some flint debitage.

Structure 22171 (PRN 31593)

See figure 83

A rather irregular roughly oval hollow (22171) measuring about 7m by 6m lay on a gentle west-facing slope to the north-west of the main roundhouse settlement (SH 25504 80853). The hollow was orientated with its long axis north-west to south-east and was effectively a terrace into the slope, so its south-western side was level and open. At its deepest the hollow was about 0.40m deep (plate 143).

Just inside the hollow were seven postholes (21200, 21204, 22174, 22176, 22180, 22182, and 22187). These



Plate 143. Hollow 22171 with postholes

did not form a very regular pattern but were sufficiently evenly distributed to suggest that they were structural postholes and had supported a small timber structure over the hollow. The posthole on the north-western side (21204) was a double posthole, although it was not clear whether this was due to it having been replaced or whether it performed a different function to the other single postholes. With the exception of the double posthole all were between 0.2 and 0.3m deep and about 0.5m in diameter.

At the centre of the feature was a pit 22170 (measuring 1.0m by 0.6m and 0.2m deep), which contained fragments of clay but little evidence of burning. It was sealed by a layer of clay (22143), which had definitely been burnt and used as a hearth. This may have been the central part of a general clay floor as a patch of clay surviving to the west (22172) suggested that originally the clay extended much further over the base of the hollow. In the interior of the structure was also a pit (22141) measuring 0.9m by 0.7m and 0.3m deep.

In order to check whether the archaeology continued an additional area to the north and north-west of the hollow 22171 was stripped. This revealed a linear feature with stones in the top, possibly a stone-capped drain (22183); a small pit (22184) and a patch of burnt clay (22186). These were planned but not excavated, covered with geotextile and reburied. This additional area has therefore not been fully investigated but has been preserved for future investigation.

A piece of copper alloy waste or slag and a single piece of vitrified hearth wall were recovered from the clay floor patch (22172) and a single spheroid representing smithing activity came from a possible posthole (22182), as well as a chip of flint (sf2052). However the only diagnostic find was a spindle whorl (sf1375) from over the possible capped drain (22183) to the east of the hollow. This could hint at a date contemporary with the main roundhouse settlement, which contained numerous spindle whorls. A small patch of silt with charcoal flecks (22145) contained burnt bone fragments (sf4041) and it may have been a remnant of an occupation deposit. The identifiable charcoal proved to be only of oak, and the sample from this deposit also produced considerable quantities of wheat chaff, most of the identifiable material being from emmer wheat, though also a small quantity of chaff from spelt wheat. There were a small number of wheat grains and fewer barley grains. A sample from a similar adjacent patch (22144) also contained charred wheat chaff, with some barley and a hint of oats present, possibly as a crop weed (McKenna, volume 3, part XIX.4). It is probable that this represents the use of chaff as fuel. The fill of posthole 22180 also contained a few tiny fragments of burnt bone (sf4388, 5562). The hearth (22143) produced some small sherds of pottery (sf5495). The 5 pieces of brown pottery and 1 scrap of paler pot were all essentially featureless and no shape could be reconstructed but the very hard, abrasive fabric suggests that these could be Middle Bronze Age.

South of structure 22171 and running through the edge of the pit group 25046 were some ditches or gullies. Although there was no clear dating evidence these are interpreted as post-medieval features (see below).

Later features

A steep-side ditch (05044/05051/05059) ran through this area from south-south-west to north-north-east, ending just before pit 05053. This was up to 0.4m deep and 0.88m wide and cut a shallower ditch (05049/09030) that continued further north. Some marine shells were found in the northern ends of both ditches and they were presumably related to pit 05053, which contained numerous shells. Although the ditches cannot be firmly identified with a boundary on the early maps they are roughly parallel to post-medieval boundaries in this area and probably had a drainage function. A pit near Tyddyn Pioden also contained numerous shells and it is assumed that the survival of marine shells on this acid site indicates a post-medieval date.

Running perpendicularly from these ditches to the west was a shallow gully (10025/10027), which was heavily truncated but probably turned north to join a gully (10021/10023) running parallel to the ditches. Where best preserved this was up to 0.7m wide and 0.54m deep but along most of its length was little more than 0.1m deep. The fill of this gully was very similar to the ploughsoil and it is assumed that it was a small enclosure contemporary with the north-south ditches.

Interpretation

Feature 22171 appears to have been a small, probably quite casually built structure, but almost certainly roofed and with a central hearth. The spindle whorl and more substantial pieces of metalworking waste from structure 22171 suggested an Iron Age date. Two radiocarbon dates were obtained, both on charred cereal grain. One date from the hearth (22168) was recent and presumably intrusive (cal AD 1680–1940 (SUERC-87071)). The other date from the occupation layer 22144 was Late Iron Age (60 cal BC–cal AD 60 (SUERC-87072)).

The pit group was initially thought to be of Bronze Age date from the single Bronze Age sherd, but other evidence supports an Iron Age date. Single items of short-lived charcoal from three pits in this group were dated (10001, 10012, and 11019). These all produced Late Iron Age dates (60 cal BC–cal AD 70 (SUERC-83280), 200–40 cal BC (SUERC-83281) and cal AD 20–210 (SUERC-83285)). The last date could indicate Roman activity but with no other suggestion of this the earlier part of the date-range might be taken as being more appropriate. The dates are not very similar so perhaps suggest that the pits were used over an extended period in the Late Iron Age. The presence of Cheshire salt container material supports the Late Iron Age date.

The single date from structure 22171 does not give a very reliable date for this feature but as the date is similar to those from the pit group it can be suggested that both the structure and the pit were used in the Late Iron Age and that they were part of the same activity. The structure is small and if it was domestic it was presumably a short-lived occupation. The function of the pit group is uncertain but one possibility is that they were for cooking, with hot stones used to create small earth ovens. The *in situ* burning may support this, especially the one case of clay lining and some burnt stones were present, but more might have been expected if this was their function. The lump of smithing hearth slag from pit 11019, which was one of the pits dated (SUERC-83285), could indicate Late Iron Age smithing. However, the quantity of metal-working debris found from the pits and structure 22171 was small and probably only indicative of smithing in the general area rather than being directly related to any of the features (Tim Young pers. comm.). The evidence from the charcoal does perhaps support some smithing, as it suggests high temperature burning. Species of the rose family and willow/poplar were burnt at higher proportions than common on other parts of the site. This may indicate selection of species for certain qualities or that some species were more common in the environment than at earlier periods, perhaps hawthorn forming hedges.

The presence of both a Bronze Age pot sherd and Iron Age date (SUERC-83280) from pit 10001 shows that mixing from different periods has taken place in this area. The possibly Roman pot fragments from pit 13011, away from the main group, are too eroded and uncertain in identification to be of much use in dating the pits, but these are hints of activity in other periods.

Although the activity here appears to have been Iron Age it was not related to the main roundhouse settlement, as it was much later in date. This activity therefore seems to have been quite isolated as all the other dated Iron Age activity on Parc Cybi was roughly contemporary with the main settlement. Most of the length of gully 25047 continues quite closely the alignment of the northern end of wall 90010; the curve at the southern end coming at a point appropriate to create an entrance into the roundhouse settlement. In the absence of dating from the gully its alignment might be used to suggest that it was part of the field system related to the roundhouse settlement. It is tempting to suggest that the gully originally continued to enclose the pit group and small structure, but if it did so the structure was using a pre-existing enclosure.

Field boundaries to the south-east of settlement (PRN 31594)

See figures 7 and 84

To the south-east of the roundhouse settlement (centred on SH 25626 80726), for about 95m the ground remained level, low lying and fairly damp as it was underlain by boulder clay. The subsoil then changed to sands and gravels and rose steeply to an outcrop of bedrock. Within the low-lying area ditches defined enclosures that may be related to the settlement. Ditch 90325, up to 0.28m deep, ran roughly north-west-south-east from near the limits of the settlement for about 40m then turned almost a right angle to the north-east (now numbered 01079), where it survived to up to 0.7m deep (figure 84.2). In places this had a shallower ditch (01084/12017/16004) running parallel, which it seems to have cut and therefore post-dated. Although largely truncated 01079 seems to have curved east at its north-east end and become ditch 22147. This curved round in an arc and then ran almost due south for over 70m as ditch 08020/01045. There was a 3m gap in ditch 22147, and this may have been an entrance, although as the ditch was only 0.2m deep maximum it could have been an artefact of truncation. The fills of all the ditches were peaty, suggestive of frequent water-logging.

Close to the point at which ditch 90325 turned north-east another section of ditch (11015/12013) seemed to continue the curving line of 22147. The north end of 11015/12013 had a deliberate terminus and the gap between it and 90325 was apparently surfaced with a layer of clay and cobbles (12018), suggesting that this was an original entrance and that the track through it had been reinforced with stones. Ditch 90325 seemed to have carried water from the curving ditch (22147) towards the north-west as at its north-west end four shallow curvilinear outflow channels (90315, 90317, 90456 and 90457) turned abruptly to the south to fade out not far from the much later culvert (90066). These channels had the same distinctive dark brown, silty rather organic fill as 90325 but no direct stratigraphic relationship could be established. The narrow channels formed an intercutting sequence with 90456 as the earliest and 90315 as the latest. These ran straight, from north-east to south-west perpendicular to ditch 90325, then curve to the west and petered out just before they reach the large culvert (90066). It is probable that they originally drained into a ditch or drain preceding 90066.

Adjacent to these ditches was a large irregular hollow, probably a tree hollow (90419) cut by a small, shallow pit (90417).

The areas to the north-east and south-west of ditch 90325 contained almost no activity, but within the enclosure with the curving northern end there were various pits. Close to the gap in ditch 22147 were three sub-circular stone-filled pits, 22149, 22151 and 22153. They were of similar dimensions, the largest of which (22153) was 1.20m diameter and 0.25 deep. A similar but smaller pit (22155), 0.7m in diameter and 0.3m deep, was located just to the south of these.

Within the enclosed area were three large pits. Pit 03029 was sub-rectangular and oriented north-west to south-east. It was 3.36m long and 1.6m wide and 0.5m deep (figure 84.4), and was filled with silty clay and some large stones, though none appeared to be lining or structural. Pit 12003 was roughly egg-shaped, 2.05m long, 0.66m wide and 0.33m deep (figure 84.3). It was located adjacent to pit 03029 and nearly parallel to it. Pit 09023 was sub-rectangular, measuring 2.45m long, 2m wide and 0.4m deep. It was filled with stones and located in the northern part of the enclosure. There was evidence of significant undercutting in all three pits suggesting that they had held water and had been open for some time. The fills of two of the pits contained peaty clays, which supports



Plate 144. Pit 03029 fully excavated

this theory. Pit 03029 had a notch cut in its north-west edge (plate 144), pit 09023 had one battered south-eastern edge and pit 12003 had a shallower cut at its north-west end. These elements suggest periodic access was required. It was notable that once excavated, two of the pits quickly filled up with water and retained it and it is possible that their function was to collect and hold water. The fills of all three contained a jumble of large stones within the fill and this may indicate that once they fell out of use they became a convenient dumping point for unwanted boulders. Pit 03029 produced half a shale bracelet (sf27) and a fragment of a mid-2nd century mortarium rim (sf36) was recovered from pit 12003. These indicate a Romano-British date, making them later than the main roundhouse settlement in Area B2, but possibly contemporary with the activity in Area K9. Other potential features within the enclosure proved to be root hollows and other natural hollows. A feature lying just east of ditch 08020 appeared to be a corn dryer. This feature (21229) will be described with the other corn dyers below.

Ditches 90325 and 22147 appeared to have been boundary ditches defining fields. None of these ditches appear on the 18th or 19th century maps and they are presumably earlier, although it is not possible to know how much earlier. Ditch 90325 continued the alignment of the main wall through the roundhouse settlement and it would fit well with the layout of the settlement in its landscape, but the Roman period activity in Area K9 was only 25m north of ditch 22147 and these fields would equally well fit with that period. A Roman date being supported by the finds in the two pits within the enclosure. However these two interpretations are not mutually exclusive. Even if the settlement locations migrated from the Iron Age into the Roman period the fields might well have continued in use and might have influenced the location of later settlements.

Pits and related features in Area I (PRN 31598)

See figures 24 and 85

In Area I, not far from the top of a fairly steep, north-west facing scarp (SH 25722 80654) was a group of pits (group 19073, PRN 31598). The date of these features was unknown until radiocarbon dates were obtained, though a Roman date had been guessed from the proximity of a sherd of samian ware (sf1034). However a date from pit 22013/18078 of 390–200 cal BC (SUERC-81341), suggested that these belong with the Iron Age activity on the site.

The pit group was focused around a rather irregular elongated hollow (18085 and 22015) aligned roughly north-east to south-west and measuring 3.4m long, 0.9m wide and up to 0.32m deep. The hollow had been lined with burnt clay; a small fragment remained *in situ* on the edge of the cut but quantities of the lining material were found in the stony fill. There was also a stone slab in the base of the cut, which seemed to be part of the lining. The smoothed surface of many of the pieces of the burnt clay from the fill showed that it was a deliberate lining but it had not been fired to the temperature of a furnace or a smithing hearth and no slag or other metalworking waste of any sort was found. Unusually for such a feature the fill contained very little charcoal.

Just clipping the south-western end of this feature were pits 22013/18078 and 19084. The former had a flat slab in the base with another smaller one stacked on top (figure 85.7). Pit 19084 had a stack of four slabs, in this case the smaller ones were underneath, and the stack had partially toppled over (figure 85.5). It is unclear whether these two features were postholes with the pad-stones raising the posts to a specific height, or whether the stones had another function. There were no other packing stones and even when packed around with earth the stacks of stone do not appear very stable, but then that may explain why the stones in 19084 had slipped. This feature may then have been replaced by 19071, which also had a flat stone in the middle of its fill (figure 85.6). A larger sub-circular pit (19065) contained only small stones and no evidence for its use except for a single heat-cracked stone. This and a shallow scoop (18102) also contained tiny fragments of burnt bone, but these were so small and so few that their significance is very uncertain.

Several of the surrounding features seem to have been postholes (18106, 18122, 18082, 19069/18088, 18098, 18100, 19067), although only 18100 and 18082 had *in situ* post-packing and 18122 had the remains of a post-pipe into which clay had slumped. Although some lines of three can be made there is no real sense of this being a single roofed structure, although some small patches of clay (18096, 18097, 18095) might represent a floor surface.

No chronologically diagnostic finds were recovered from group 19073, but a sherd of samian ware (sf1034) was found only 3.5m to the south-west (figure 85.1). The radiocarbon dates suggest that this was a chance find with no association to the feature group.

Ten metres to the south of the main group were two other features (PRN 31599, SH 25723 80638). These were a



Plate 145. Possible earth oven (21039) half sectioned

rather disturbed spread of clay (22001/22003), some of it in a shallow hollow (22002), and a small pit (21039). The spread of clay measured about 2.0m by 1.4m and was 0.15m deep. The clay was pale yellowish grey with occasional rounded pebble and seemed not to have subjected to heat. It resembled some of the floor layers in the main roundhouse settlement. Feature 21039 was an almost perfectly circular pit 0.64m in diameter and 0.32m deep (plate 145). It had steep sides and a flat base and most of its fill (21040) contained numerous heat-fractured stones. In its base was a thin layer of soft black, charcoal-rich silt (21041). All the charcoal recovered from this layer was oak (McKenna, volume 3, part XIX.3).

These features would have been largely discounted were it not for a broken stone mortar (sf1036) from the clay deposit, a grinding stone (sf 1039) adjacent to it and a fine highly decorated spindle whorl (sf1042, volume 3 Fig VI.4.7) from the base of the pit. The mortar, about half of which was recovered (sf1036, volume 3 Fig. VI.1.4), was made by pecking a hollow in a small boulder of medium-grained dolerite. The lips of the mortar have been rounded from extensive use. If the clay deposit was a floor it is likely that the mortar had been set into it and the grinding stone was probably also related to the use of the floor. The finds indicate that this was the damaged remains of a small structure. The pit (21039) appears to have been an earth oven. This suggests cooking adjacent to the floor where the mortar suggests food may have been processed. The spindle whorl also indicates domestic activity. It is assumed that this activity is contemporary with group 19073 and that together they represent small, temporary structures in or around which cooking and other activities took place.

A date on probable charred fuel wood in pit 21039 (420–230 cal BC (SUERC-83271)) was very close to that from group 19073 and suggests that these features were all part of the same phase of activity. Combined these represent an area of Middle Iron Age occupation, with hearths and at least one small structure, which was roughly contemporary with the main roundhouse settlement.

Iron Age roundhouses in Area K (PRN 31595)

See figure 86 for plan and figure 87 for sections

To the north-east of the main settlement was a rounded hill and at the foot of the northern side of this (SH 25684 80870) were two more structures that probably dated to the Iron Age. These were two circular structures interpreted as clay-walled roundhouses (80248) and (80249). Both were equipped with internal drains and the choice of location provided both protection from the prevailing south-westerly winds and the necessary slope gradient to manage the flow of water through the drains and out of the structures. It is possible that the location down wind and out of sight of the main settlement is significant and perhaps related to the function of these structures.

The two structures were located either immediately adjacent or possibly slightly overlapping; the drain from (80249) flowing downslope eastwards and apparently into (80248). Unfortunately the sewerage rising main trench ran north-south between the two buildings and bisected the occupation area. This made it difficult to explore the relationships between the deposits either side of the baulk and to establish the relative chronology of the two buildings, but it is possible that they were sequential rather than contemporary.

Western roundhouse (80249)

The first of the two structures encountered was recorded as group (80249). This was defined almost entirely by its internal features, particularly a 'question mark' shaped drain, but had possible traces of a wall, which originally may have been approximately 8m in internal diameter (plates 146 and 147).

The interior drain and hearths

The most prominent feature associated with the building was the cut of the 'question mark' shaped drain (80180). From its origin in the south-western quadrant of the area, it arced around in a clockwise direction through 135° before heading off to the east where it ran down the slope and was cut by the rising main trench. In total, the exposed length of the drain was approximately 7.60m. It was between 0.20 and 0.30m wide and 0.13m deep, with steep sides and a flat base. It was lined with schist pieces (80195) averaging 0.28m in length, set vertically against the edges the cut, with others laid horizontally on top to cap the structure (figure 87.1 and 2). Occasional base slabs were also identified but these were not continuous along the length of the drain cut.

The drain 80180 started in the south-western quadrant of the structure at pit 80185. The pit was orientated north-west to south-east and was sub-rectangular in plan, approximately 0.90m long, 0.64m wide. It had steep, almost vertical, sides and at 0.28m deep, its flat base was more than twice the depth of the drain channel, which joined its north-western end. The pit had dark grey silty clay (80184) in the base with a dark greyish brown silty clay (80183) forming the main fill (figure 87.3). The relationship between the drain and the pit strongly suggests that the two were functionally related, with the pit apparently serving as some kind of reservoir or container for liquid. The drain ran down from the pit, and became slightly deeper as it headed away to the north-east in order to compensate for the uphill inclination of the natural ground surface and maintain a constant downward flow away from the pit. After around 0.6m the drain turned and began to flow with the gradient of the hillside seemingly to channel its contents away and to the east. As the pit was clearly deeper than the drain, it appears that the that the drain may have been intended to provide some kind of overflow facility, channelling water or liquid away from the reservoir once its depth had reached a certain level.

The drain is typical of those found inside Iron Age roundhouses in North Wales, so it is probable that it was inside a roofed building. However, despite extensive cleaning by hand, only tentative evidence for an enclosing wall was identified. Two shallow patches of light brown silty clay with pebbles (80202 and 80196), no more than 0.08m deep, formed a discontinuous arc around the north-western side of the area of activity. Although these were subtle features, it is possible that deposits 80202 and 80196 were the only surviving remains of an approximately circular clay wall, which originally may have been approximately 9m in diameter.

A hearth or fire pit (80227) lay on the southern edge of the drain, roughly central to the proposed structure. The fire pit was an irregular sub-circular shape, 0.17m deep, largely filled by firm yellow silty clay (80228) with clearly defined darker lenses. The appearance of the deposit is consistent with its use as a hearth, with repeated episodes of burning of its upper surface accompanied by periodic resurfacing with fresh clay (plate 148). Above this lay a thin firm, black and yellow silty clay deposit (80229) with frequent charcoal inclusions, which appears to represent the remains of the final fire in the hearth. The clay deposit (80228) did not extend along the entire base of the pit. It had a clearly defined, almost vertical edge along its western side indicating that the various lenses



Plate 146. Roundhouse 80249 showing drain lining and other internal features



Plate 147. Roundhouse 80249 fully excavated

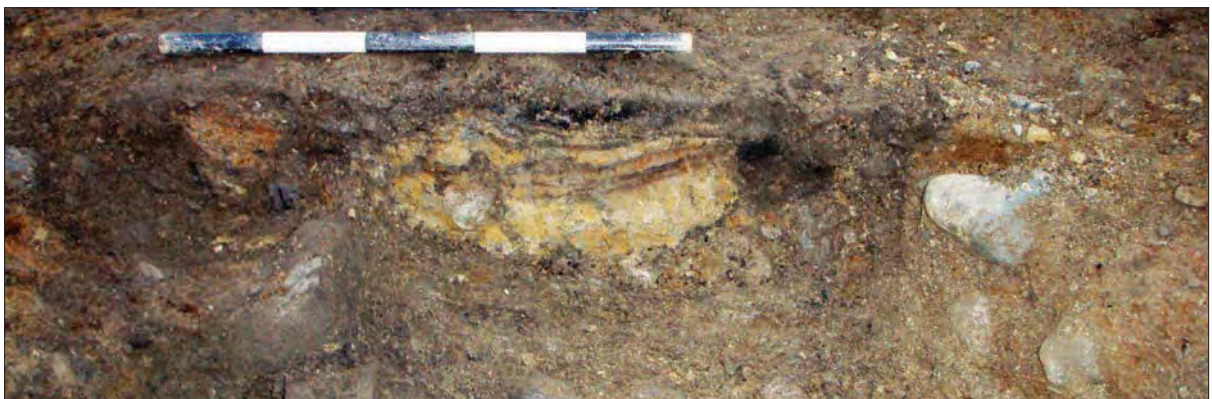


Plate 148. Section of hearth pit 80227

had built up against some kind of vertical surface (figure 87.4). This might have been the side of a wooden trough, since decayed, but it would have been vulnerable to burning and it might be more likely that this was the cast of a stone later removed.

Any such component of the hearth must have been removed before (80230), a levelling layer of firm, brown clayey silt with charcoal flecks and patches of clay, was deposited. This layer covered the charcoal-rich deposit (80229) and filled the void on the western side of the clay layer; it also filled a 0.19m deep sub-circular cut (80236) located in the north-west corner of the fire pit. This feature was initially interpreted as a posthole though it is unclear whether the posthole cut through or was butted by the burnt clay deposit (80228). If it was a posthole, it might reasonably be argued that it is not contemporary with the hearth; if it was not to be set alight, any wooden post would have been removed before the hearth was used. It is also possible that the posthole was cut after the hearth had gone out of use, and then deliberately and completely removed before (80230) was deposited. Another possibility is that cut (80236) is the socket of another removed stone used to line the edge of the pit, partially enclosing the clay hearth within and contemporary with its use.

Two other deposits of heated and oxidised clay were identified in this central area. Both features, located either side of the firepit (80227), also appeared to represent the remains of hearths. Deposit (80182) was later than the firepit (80227) and overlay the western edge of its levelling fill (80230). Deposit (80222) lay on the other side of the firepit. Both consisted of a slightly convex layer of moderately hard and burnt, mottled yellow, grey and brown clay with moderate flecks of charcoal set in slight hollows. Though hearth (80182) clearly post-dated the use of the firepit, no such stratigraphic relationship was identified between (80227) and (80022).

Postholes and pits

In total 11 postholes, including the one associated with firepit (80227), were identified in this area, straddling the stone-lined drain. The majority of them were circular or sub-circular in plan. Four of the larger examples, (80186), (80213), (80215) and (80245) appeared to form a linear arrangement of two groups of two, with a total length of 6m and orientated west-north-west to east-south-east. Although they were mostly similar in shape, their dimensions varied greatly from between 0.66m to 0.25m in diameter and between 0.38 to 0.12m in depth. Their fills were also variable and only posthole (80186), contained some larger packing stones. Despite these differences, it is likely that all four are functionally related and that they formed part of a wall line possibly sub-dividing the roundhouse. A further posthole on the same alignment, (80422), lay 3.5m away from (80245) on the other side of the rising main baulk and it was recorded as part of roundhouse group (80248). It is possible that was part of the same line and if so indicates that it might have been later than the roundhouse and cut through its remains. In this case the posthole alignment might have been associated with the other roundhouse (80248).

In the northern half of the roundhouse were postholes 80247 and 80241, 0.20 and 0.28m deep respectively, posthole 80200, which was 0.35 long, 0.29m wide and 0.13m deep, and 80208, which was only slightly smaller. As posthole 80241 was cut by the drain it and possibly some of the other postholes pre-dated the construction of the drain (figure 87.2). An elongated slot (80224), about 0.2m deep and to the west of the large 'reservoir' pit (80185), had a small posthole (80226) 0.3m deep in its end. Posthole (80205) lay nearby, in the south-west quadrant of the structure. This was one of the larger postholes with a diameter of 0.65m and 0.18m deep. It was filled with a single deposit of firm, brown silty sandy gravel (80204). Two large flat stones lay overlapping each other within the fill, possibly the remains of post pads or dislodged packing stones.

Three stakeholes ((80216), (80218), and (80233)) were located just to the north-west of hearth deposit (80182). All were sub-circular in plan, between 0.16 and 0.10m in diameter and 0.13-0.10m deep. It seems likely that they were related in function, and possibly represent the remains of a small stake-built structure associated with the use of the hearths, perhaps used to facilitate the heating or drying of materials over the westernmost fire.

A small shallow pit (80198), 0.31m wide, 0.17m wide and 0.10m deep had discoloured and oxidised gravel in its base demonstrating *in situ* burning and a thin charcoal-rich deposit, presumably the remains of the fire. Pit (80232) was located in the north-east quadrant of structure (80249), on the northern edge of drain (80180). It was a large, irregular ovoid shape in plan, 0.80m long, 0.70m wide and 0.15m with a firm grey pebbly fill (80231) that appeared to contain a high proportion of redeposited natural gravel. The infilled pit was just clipped by drain (80180) on its western end, so, though its function remains unclear, pit 80232 appears to have been deliberately filled and levelled before the drain was cut. Pit 80243 was a similar pit, measuring approximately 0.75m by 0.68m and 0.28m deep, within the eastern part of the structure.



Plate 149. Roundhouse 80248 as first exposed showing demolition deposits and drain capping



Plate 150. Northern half of Roundhouse 80248 showing drain lining

Plate 151. Northern half of Roundhouse 80248 fully excavated



A number of features, which were initially thought to have had archaeological significance, subsequently turned out to be natural in origin. The largest and most extensive of these was layer 80197, a 0.12m deep deposit of firm yellowish brown silty clay, which extended across the eastern and north-eastern side of the drain structure. Initially interpreted as the remains of a clay floor layer, an exploratory sondage demonstrated that this was in fact just variation in the natural drift geology.

Eastern roundhouse (80248)

The second structure (80248) was located adjacent to and just downslope of (80249). The archaeology here was more complex and collapse deposits gave some indication of the superstructure, including possibly the roof (plates 149-151).

Terraces

The earliest activity associated with this building was found on its western side. Here, at the base of the hillslope, two apparent terraces were cut in order to create a series of steps or platforms upon which structure 80248 was built. The longest of these, (80419/80338) (figure 87.5), was slightly confused by being clipped by the mechanical excavator close to the baulk, but it seemed to curve round the western, uphill side of the area of activity. The terrace had quite a steep cut up to 0.7m deep, though it became shallower towards the southern and northern ends where it merged with the natural hillslope.

The terracing meant that the floor in the western part of the building was below the outside ground level, but the interior of the building still was not entirely level, just less steeply sloping. The downward slope to the east may have been a deliberate part of the construction to allow run-off through the drains and out of the building.

Another terrace cut (80327), apparently not directly related to the structure, was cut into the hillslope at the northern end of (80419). It ran for about 6m, forming a rough semi-circle, with steep, in places almost vertical, sides up to 0.40m deep. Terrace 80327 contained the remains of a possible annexe wall (80317).

Walls

There was a large quantity of tumbled stone recorded across the area, which suggests some stone was used in the walls but none was found *in situ*. It seems most likely that any potential wall would have sat just outside of the terrace cut (80419/80338). A circular wall, with an approximate internal diameter of 7.2m, if it were located just outside of, and concentric with, the projected original edge of the northern terrace cut (80338) and the southern part of the cut discussed above, would contain all of the occupation features centrally within and enclose the vast majority of the demolition and burning deposits. Deposits that appear to be tumble from the walls suggest (see below) that this line is likely. They also contained considerable amounts of stone suggesting that the walls, while probably largely of clay contained a substantial stone component.

Other walls with stone at least forming the foundations were found to the north and south of the main structure. Both deposit 80317, to the north, and 80265/80287, to the south, appeared to start approximately on the circumference of the proposed circular wall line and only relatively short lengths of each were identified. Both were overlain by later wall tumble and general demolition deposits. The south-eastern, better preserved, end of wall foundation (80287) consisted of an approximately 1m wide straight linear deposit of schist stones. They were laid flat in a shallow, 0.09m deep, construction trench (80291), cut into what was believed to be a relict soil horizon (80403). At its north-western end, where it was recorded as 80265, many of the deliberately laid schist cobbles, appeared to be oxidised and burnt.

Further to the north, and within the terrace cut 80327 was another deposit of flat schist cobbles (80317), 3m long, 1.75m wide and 0.40m deep (figure 87.14). It curved around the base of terrace cut (80327), and like the stone tumble inside the roundhouse, this may have been pushed in from the top of the terrace. The larger slabby nature of the stones in this deposit suggests they may have been from a drystone wall rather than the cob wall of a roofed building. It is possible that a small enclosure or animal shelter was constructed adjacent to the main roundhouse. If so it contained no occupation debris.

Several postholes (80420, 80422, 80352, 80365 and 80392) lay on or near the projected wall line. They were between 0.22 and 0.42m in diameter, and 0.10 to 0.34m deep. With the exception of (80365), an altogether less substantial feature, they all had steep sides and a flattish base. They were all filled with a dark or reddish brown, clayey silt and generally had good evidence for packing stones. How the posts would have functioned as part of a wall is unclear. They appear to be too widely spaced to have supported wattle panels or a ring beam. As noted

above 80422 continued the line of posts crossing structure 80249 and could be related to these, and posthole 80420 is more likely to have belonged to structure 80249 than to 80248. Two other postholes (80424 and 80321) where cut through the colluvium sealing the remains of the roundhouse, so they were not related to its use, and it is possible that all the postholes are unrelated to roundhouse 80248. Posthole 80392 contained a sherd of 19th century bottle glass though it is possible that the sherd is intrusive from the layer above.

Given the difficulties in identifying the walls of the structure it is perhaps understandable that uncertainty also surrounds the location of any entrances to the building. It is possible that there was an entrance in the northern side, more or less at the eastern end of terrace cut (80338). A 1.3m long, 0.5m wide aligned sub-rectangular patch of redeposited yellowish, stony sandy clay natural, was identified, running north-south between drains (80259) and (80288). The deposit also partially covered two large drain capstones near to the end of the drain. The adjacent ends of each capstone dipped downwards, suggesting that they may have partially collapsed. It is possible that this slumping has occurred due to the amount of traffic that this part of the drain had endured, and the application of the redeposited natural above was an attempt to cover and protect the drain and provide a level surface in an area of heavy traffic.

Alternatively postholes 80352 and 80392, which were fairly substantial with large packing stones, might have supported entrance posts, although pit 80371 would have posed an obstacle if this was the entrance. It might be expected that the internal drains ran out through the entrance but they might equally have passed under the wall. The drains were clearly designed to flow directly downhill and might not indicate the entrance.

Drains and related features

The best preserved elements of the building were its elaborate internal drains. The main drain, (80259), was a similar 'question marked' shape to that in the structure to the west, however it appeared to made of a number of almost straight segments in contrast to the smooth curving shape of drain 80180. The drain was approximately 6.28m long and originated on the western side of the structure. It arced round to the north and east and then ran off downslope towards the east, where it gradually faded out. It had an average width of 0.35m, with generally steep sides and a flattish base up to 0.28m deep. It had a stone lining (80250) constructed from flat schist pieces up to 0.40m in length. Some of the stones appear to have been set vertically, though along much of the drains length the side slabs appeared to have been laid at an angle to the cut to produce an almost 'V' shaped profile to the resulting stone drain channel. The drain was capped continuously along its length with horizontally laid schist slabs up to 0.63m long, but no basal slabs were found. The basal fill of the drain was a soft grey green silty clay (80390) over which was an orange brown silt (80389) apparently coloured by a concentration of precipitated iron oxide (figure 87.6). This precipitate was found in most of the drains (plate 152).

The main drain appeared to serve as some kind of overflow channel for a deeper pit or reservoir at its uphill end. The drain ran from a large, sub-rectangular pit or trough (80372), approximately 1.00m long and 0.80m wide with almost vertical sides and a flat base (figure 87.7). At around 0.41m deep, it was around 0.20m or so deeper than drain (80259).

Traces of wood, including a burnt piece (sf4460) suggest a possible timber lining to this pit. An upright stone against the eastern side of the pit seems to have been *in situ* and may have provided packing or support for this wooden lining. There were seven or eight other large, flat schist slabs (80373) in the pit but all but one was laid over the top of the pit. These seemed to be quite carefully laid but had slumped into the middle of the pit with one stone falling into the base of the pit. The stones could not have been self-supporting over an empty pit so it is suggested that they rested on a wooden structure and collapsed into the pit as this decayed. Two of the stones



Plate 152. Section through drain 80286 showing iron oxide precipitate

had perforations and had broken across the perforations. The largest (sf5391) was 0.42m long and had been deliberately shaped to create a rough ovoid. Stone sf5392 was slightly smaller and had not obviously been shaped. As they were broken it is presumed that they were reused from elsewhere. There were two similar perforated stones (sf5393 and sf5394) reused to line drain (80359).

The main fill of the pit (80374) seems to have been deposited when the pit went out of use as the trough decayed but in the base was a patch of orange clayey silt (80375). This was so red that it was initially assumed to be burnt but it seems probable that reddening was due to iron oxide precipitation as seen in the drain fill.

There was also a number of subsidiary drains associated with the main drain (80259). A short but sinuous stretch of drain (80331) began in western part of the structure and headed off in a generally south-easterly direction. With a maximum width of 0.28m and depth of 0.19m, it was slightly smaller than the main drain (80259). It had steep, sometimes vertical sides, and a flat base. It had been lined with schist slabs (80330), an average of 0.20m long, and capped with slightly larger, flat slabs. After about 2m the drain changed direction and turned sharply to the east-north-east, heading downslope in a straight line to a 'Y' shaped junction with the main drain (80259). This eastern segment, recorded as 80359, had different characteristics to the other end of the drain; it was wider at 0.40m, deeper and the lining and capping stones were larger (figure 87.8). It is possible that the western end (80331) was a later addition.

Drain 80331 cut through the southern edge of a large pit (80431), measuring 1.02m long, 0.88m wide and 0.29m deep with steep sides and a flattish base (figure 87.9). It appeared almost triangular in plan, however, it is possible that this was due in large part to its truncation to the south-west by (80331), without which it would more than likely have been a more regular, sub-rectangular shape. This pit was capped by flat schist slabs like pit 80372 and it seems likely that the eastern section of the drain 80359 originally ran from the south-eastern corner of this large pit. The western section of the drain 80331 appears to have been added later after pit 80431 had gone out of use.

Another substantial drain segment was located in the northern part of the roundhouse. Drain 80288, ran for a distance of 2.6m, running downslope to the east then south-south-east to join main drain (80259). It was 0.36m wide and up to 0.30m deep with quite steep sides and a flat base and was lined and capped with schist slabs (80286) (figure 87.10), but had no trace of an associated pit or a trough.

Three of the subsidiary drains were noticeably narrower, shallower and less well constructed than the other examples found within the structure. One of these, a curvilinear drain (80348), led away down the slope eastwards from the south-eastern corner of the trough 80372 (figure 87.7), becoming shallower as it headed eastwards and faded out after running for a distance of 1.71m. At 0.20m wide and 0.09m deep it was smaller than the main drain and utilised a simpler construction technique; instead of side and capping slabs, the drain was filled with angular schist stones (80349).

The two other examples were both smaller drains that fed into the main drain (80259) in the north-west quadrant. The easternmost (80393) and the other (80404), were slightly curving in plan and ran from the base of the inner terrace cut (80338), more or less perpendicular to the arc of the main drain to the south-east. Drain 80393 was 0.76m long, 0.23m wide and 0.10m deep. This drain appears to have been unlined, though it was capped as two horizontally laid schist slabs (80394) remained *in situ* (figure 87.11). These were set across the top of the cut, and located around halfway along its length. The other drain, (80404), was around 0.6m long and had a similar profile, width and depth to (80393). Again the drain was unlined but capped by four flat schist slabs (80405). It is possible that these two drains performed a different function to the other larger examples.

The main drain (80259) and two of the three of the larger subsidiary drains, (80359) and (80288), all contained a grey silty clay primary fill (80390), (80367) and (80366). In the main drain (80259), this primary fill (80390) had a distinct green tinge to it. The deposits sat at the base of the drains, usually to a depth of between 0.04-0.06m. The drains were then all filled almost to the level of their capstones by a secondary silting deposit, recorded as (80389), (80360) and (80407). These secondary deposits can be generally characterised as a soft bright orange clayey silt, sometimes with blacker, charcoal-rich, lenses. The deposits had stained the lining stones a bright orange colour along the length of the drains. They appeared to represent the deposition of iron-rich silts within the drains during their use.

No grey silty clay primary fill was identified within drain (80331) in the centre of the roundhouse. The drain was instead completely filled by the bright orange silt deposit (80368). In contrast, the eastern end of the drain, (80359),

did possess an earlier, grey primary fill (80367). This observation may provide more support the argument that (80331) was a later, western extension to drain (80359). The three smaller drains, (80348), (80393) were all filled by a brown clayey or silty deposit recorded as (80350), (80417) and (80406) respectively.

Other internal features

To the west of the trough (80372) there was a small, rectangular recess within the main terrace cut (80419). This niche, measured approximately 1.5m long and 0.67m wide. At its base was layer 80266, a 0.17m deep stone deposit, which possibly formed a small, roughly paved platform related to activity at the trough.

It is possible that both the trough (80372) and stone platform (80266) were related in function to an elongated posthole (80427) cut into the top of the terrace (80419), directly above 80266, which would have been located just inside the proposed wall line. The posthole was in the form of a slot 0.56m long, 0.26m wide and 0.17m deep, aligned parallel with the terrace cut and set slightly back from its edge. It had *in situ* packing stones (80428) set on edge around the sides of the slot and one stone in the base. The northern end of the slot was cut away by a later pit.

After the construction of the drains occupation deposits built up sealing some of the drains, which were presumably in use, protected from infilling by their capstones. These occupation deposits (80380 and 80398) were composed of a dark brown, charcoal-rich clayey silt up to 0.15m thick covering parts of the north-western and centre of the roundhouse. Deposit 80398 was sealed below a paved surface (80341) located in the north-west quadrant of the structure and comprising a number of flat schist slabs. It formed a 1.8m long paved area, extending from the base of the terrace cut (80338) to the north-west edge of the main drain (80259), with a few flat slabs, probably part of this paving, to the south-east of the drain. The paving appeared to be an attempt to create a more stable, dry ground surface at the base of the terrace cut following the silting of the smaller subsidiary drain (80404).

The best evidence for a hearth within the structure was located in the central area, overlying occupation deposit 80380, and drain 80331. It consisted of a shallow deposit of yellow/red and black clay (80381), 0.57m long and 0.53m wide, centrally located in the building and obviously burnt *in situ*. Two stakeholes, (80382) and (80384) were located adjacent to the hearth deposit. They were both quite substantial, around 0.17m in diameter and 0.20m deep. Their proximity to the hearth suggests that the wooden stakes that they held were used in activities taking place there.

A large pit (80371) was located in the north-east corner of the building close to drain 80288 and probably just inside the wall of the building. It measured 0.78m in diameter and 0.25m deep with gradually sloping sides and a flat base. A thin layer of dark grey silty clay (80376) covered the base and sides of the pit and possibly formed a clay lining (figure 87.12). This was reinforced by three flat schist slabs (80377) lying directly on the clay suggesting that the pit was at least partially also stone-lined. The fill was a stony deposit (80379) containing predominately flat, angular schist slabs up to 0.33m long, apparently dumped into the northern side of the pit. Many had oxidised surfaces from exposure to heat, a process that appears to have happened whilst the stones were *in situ*. The stones were concentrated in the northern half of the pit and the southern half was filled with a deposit of mottled brown, orange and black burnt material (80378) that contained a high quantity of burnt clay and charcoal. This material was very similar to the overlying burnt roof deposit (80334) discussed below.

Another large pit (80346) lay just to the south of drain (80348) in the central southern part of the structure. It was sub-circular in plan, 1.14m in diameter and 0.64m deep, with relatively steep sides. It contained four stony fills (80397, 80396, 80395 and 80347), suggesting deliberately backfilling (figure 87.13). The pit was sealed by the general demolition deposit (80267).

There was only one posthole (80400) inside the structure, which lay in the north-east quadrant, between drains (80259) and (80359). It was circular in plan, around 0.33m in diameter and 0.30m deep, with steep, almost vertical sides. It was filled with a soft, dark greyish brown clayey silt (80399) with a number of pebbles and two medium sized stones that appear to be the remains of post packing. The lack of an identifiable post pipe may suggest that the fill represents disturbed packing material from a post that was deliberately removed.

Destruction

It appears that the roundhouse may have burnt down at the end of its occupation. A soft dark blackish brown silty clay deposit (80334) spread across much of the structure (plate 153). Though it was shallow, with a maximum depth of 0.06m, it was quite extensive and spread in an irregular fashion to cover an area approximately 6.00m long and up to 3m wide within the centre of the structure. Its dark colour derived from the high proportion of

charcoal contained within it. It also contained quantities of burnt clay, possibly daub, burnt bone and fire-cracked stones. During excavation some of the burnt plant material was seen to resemble straw or reeds. Another similar, though less extensive deposit (80358) was noted in the south-east part of the roundhouse, however the burnt deposits did not cover the floor area of the entire building. Charcoal in both deposits 80334 and 80358 was only from oak (McKenna, volume 3, part XIX.3). Samples of this burnt deposit were dominated by cereal chaff, particularly cereal culm (stem) fragments with over 16000 present per sample. Wheat spikelet forks and glume bases were recorded in high numbers, alongside smaller quantities of emmer wheat spikelet fork and glume bases. Straw usually burns away to fine ash, and the survival of straw fragments in this case suggests a fire burning under reducing conditions and that the delicate material rapidly buried after burning (McKenna, volume 3, part XIX.4). The evidence suggests that this deposit was composed largely from burnt straw and this could have come from a thatched roof if that had burnt down. The collapse of the roof may have provided the suitable reducing conditions for the preservation of the straw at the base of the deposit. It is possible that the oak charcoal was from the beams of the roof.

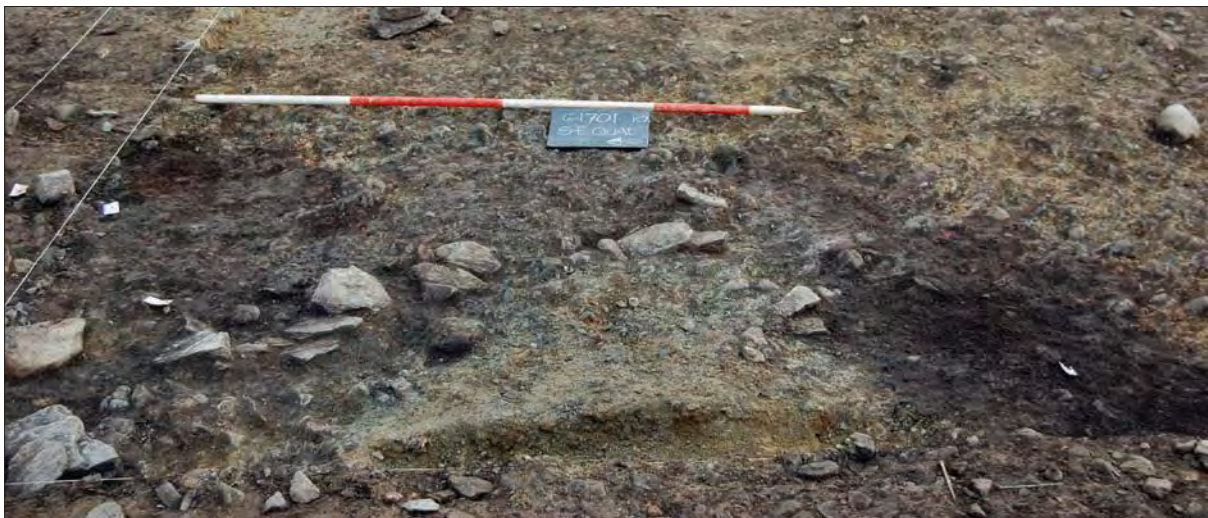


Plate 153. North-east quadrant of roundhouse showing part of the burnt spread (80334)

Burnt material was identified in the upper levels of a number of the cut features within the roundhouse. Two of the larger drains, (80259) and (80288), had a charcoal-rich layer overlying the main fill possibly material that had washed into the drains following the burning episode represented by (80334/80358). The stakeholes (80382 and 80384) next to the hearth 80381 were both filled with dark blackish brown silty clay indistinguishable from 80334, which also sealed the hearth deposit. This suggests that the stakes remained *in situ* around the hearth until the roundhouse roof was burnt, and that the voids that were created when the stakes were removed filled up with debris from the fire. The fill of posthole 80400 was sealed by the burnt deposit 80334, and the paving 80341 was directly overlain by it. In pit 80371 stones seem to have been pushed into the pit partially filling it and then they seem to have been burnt as part of the fire. The later fill (80378), a mottled brown, orange and black deposit of burnt clay and charcoal may have been pushed into the pit after the fire.

The extent of this burnt deposit and evidence for some stones being burnt suggests a general conflagration. The presence of quantities of burnt straw suggests that the thatched roof burnt down. The burning event certainly marked the end of the use of the structure. The charred plant remains provide good evidence that the house was thatched with straw rather than alternatives such as reeds or heather.

Abandonment

After the burning of the roundhouse, the building appears to have been abandoned. In the north-western quadrant of the structure a 0.15m deep, grey clay deposit (80340), 3.5m long and 1.1m wide, accumulated over the burnt deposit (80334). It lay within the arc of the terrace cut (80338) and it appeared to derive from material eroded from the edge of the terrace cut. Another clay deposit (80329) in the south-east quadrant again clearly postdates the burning of the building. The clay may have originated from the initial erosion of the clay walls.

Following these erosion episodes, it appears the walls of the structure began to collapse and the tumble from them spread across the site. Tumble from what was presumably the western wall of the roundhouse was identified in the base of the terrace cut (80338). A 0.3m deep deposit of large and medium stones (80272) appears to have

tumbled downslope and collected in the base of the terrace. A further tumble deposit (80337) overlay 80272 and represented a later stage in the collapse and spread of material from the same, western, part of the wall. Tumble deposit 80285/80326 may mark the approximate position of the wall on the south and east side of the building. This was an extensive deposit of mid grey, slightly sandy, silty clay containing 50% medium sub-rounded and angular stone cobbles and was generally located on and to the south of the proposed wall-line. Another curvilinear stony deposit, deposit (80332) is also likely to be tumble from this south-eastern part of the wall, though it appears to represent an earlier stage in the process as does (80434) in the south-west. Deposit 80434 was a layer of tumbled angular cobbles, below the general demolition deposit (80267) on the inside of the southern terrace cut. It was a curvilinear deposit, about 0.64m wide and 0.1m deep, and consisted of stones and clayey silt. In the south-east quadrant deposit 80332 consisted of a similar band, 0.66m wide, of small and medium cobbles in a dark greyish brown clayey silt matrix. These deposits were also associated with patches of clay. Both appear deposits to be tumble from a wall presumably constructed of stone in a clay matrix.

Other stony, tumble deposits appear to be more generalised, and it is difficult to associate them with a specific element of any original wall structure and they must instead be designated as reworked and plough disturbed general building collapse material. This list of demolition deposits includes (80267), (80268), (80269), (80315), (80318), (80336), and (80410). Within this overall pattern of structural degeneration it was possible to identify localised episodes of relative stabilisation represented by thin grey silty layers (80263) and (80345). Following these phases of decreased activity, the process of demolition and decay appears to have continued as these silting episodes were overlain by (80267), a 0.12m deep, mid brown clayey silt with 60-80% sub angular and angular cobbles, an extensive demolition/tumble deposit that covered much of the interior of the structure.

The quantity of stones in these deposits shows that the walls contained stone but it was not suitable building stone and the silt between the stones may have been the remains of the cob that formed the main structure of the walls.

Following the collapse of the walls, the western side of the roundhouse appeared to have been covered with a sequence of thin colluvial deposits (80274 and 80270/80271), material that had been washed or ploughed down the hill and sealed the remains of the structure below. These deposits lay below the ploughsoil (80304) and above the wall tumble and demolition deposits (80272) and (80336).

Post roundhouse features

A small number of features in the area of the roundhouse appear to represent later phases of activity. Posthole 80321 and feature 80319 cut through the demolition deposit (80303) and posthole 80424 was probably also cut from a higher level (figure 87.14). Feature 80319 was seen in section as 1.24m wide and 0.43m deep, but it had a short narrow gully in the base. Unfortunately the feature was not followed in plan at the higher level but the gully was recorded an exactly the same alignment as the end of the drain (80180) in structure 80249. The sewer pipe trench prevented any attempt to prove that this was part of the drain but it was cut from about the same level as the drain and it could represent the broadening of the drain caused by water erosion near its end. This is a speculative connection that could not be proved but may hint that 80249 was later than 80248.

A roughly north-south orientated 0.65m wide curving ditch (80261) cut through the ploughsoil (80304) and truncated the top of the roundhouse deposits. Another pit or ditch (80323) was only seen in section in the baulk on the western side of the site. It was also cut through ploughsoil (80304) and appeared to be around 0.84m wide and 0.31m deep.

Finds

Very few finds were recovered from any of the roundhouse features. In structure 80249 the upper fill (80183) of the reservoir/pit 80185 at the end of the internal drain contained half of a perforated stone disc (sf837) approximately 100mm in diameter, neatly chipped to shape. A stone spindle whorl (sf4248) came from the basal fill (80187) of posthole (80186), which also produced a flint core (sf4249). A flake fragment of black chert (sf4385) found embedded within (80197), with other unworked pieces of chert. The flake may have come from the activity in the structure and been trampled into the clay.

Small fragments of what appeared to be pottery but might be more likely to be burnt clay were recovered from wet sieving from layer 80222 (sf4375), and the fill (80181) of the internal drain (80180) (sf4482); probably material washed into the drain from the surrounding floor deposits as it silted up. Wet sieving also produced limited evidence for metalworking including corroding iron fragments and a small piece of smithing floor concretion (sf5936) from posthole (80200). There was only 3g of material and these do not seem enough to argue for smithing

in the structure.

Structure 80248 contained more finds. The pieces of burnt wood sf4460 that were removed from the central fill (80374) of the reservoir pit (80372) have been mentioned. Small fragments of bone and tooth were found scattered amongst various deposits, mostly recovered from wet sieving. The burnt roof layer (80334) contained small pieces of both teeth and burnt bone (sf4556). The primary fill (80390) of the main drain (80259) contained a few small pieces of tooth (sf5785). The erosion deposit (80340) at the base of the terrace cut (80338) contained some small fragments (sf5766). More small pieces (sf5431) were recovered from the extensive, early tumble deposit to the south and south-east of the structure (80326) and some burnt bone pieces (sf5558) were identified within the general demolition layer (80268).

Sixty six grams of burnt clay fragments (sf4424) were identified in tumble (80326) along with the bone fragments recorded above, and more (sf4459) were recovered from the possible roof burning layer (80334). One piece of burnt clay in sf4424 has a curved surface that appears to be the cast of a withy, suggesting that this is burnt daub, and may have originated from the face of the wall. Other small fragments were found in other deposits.

Some flint and chert flakes were recovered from the primary fills of drains 80288 and 80259 (sf5784, sf5468). Other flint items came from later, abandonment deposits; a flint flake (sf4425) from deposit 80263, the silting episode that took place between earlier and later phases of the collapse of the roundhouse walls, chert flakes (sf5474 and sf4379) from the burnt upper fill of pit 80371 and from the colluvial deposit (80270) on the western side of the structure. Flakes sf5474 may just be heat-shattered natural chert.

A number of other, larger, stone items were also found. These included four large schist stones with holes. Slabs sf5391 and sf5392 were part of the stone structure (80373) within the reservoir pit (80372) or trough at the end of the main drain (80259). Stone sf5391 was an ovoid slab chipped to shape and with large circular central perforation, and stone sf5392 was an irregular slab with a perforation in one side. Another two large perforated stones had been reused as part of the drain lining (80335) in drain (80359) in the north-east quadrant. Stone sf5393 was circular but broken and about 0.42m in diameter with a large perforation set slightly off the centre. The other stone (sf5394) was roughly chipped to an irregular oval shape.

All of the stones were local schist and had broken across the perforation, which must have been a weak point, but also suggests some force applied to this point. They must have been discarded from their original function when they broke and they were reused in the roundhouse. There are no wear signs on the faces or in the perforation to indicate function. The size of these slabs suggests they may have been thatch weights; however sf5393 seems too neatly finished for this function.

Other stone items included a polisher or whetstone (sf4229) and a large cobble heavily peck-marked and with red staining (sf4461). This was recovered from (80368), the fill of drain (80331), which explains the staining. Very dense, but highly weathered slag (sf4494), weighing 75g was identified in layer 80266, the stone deposit within the terrace recess (80430). The slag was slightly vesicular and probably a piece from centre of a smithing hearth cake. A smaller, 1.7g piece (sf4552) was removed from (80334) the burnt roof deposit. This was a small fragment of variegated black/red glassy slag and might be copper alloy slag. All the wet sieving residues from this area were checked for magnetic fragments to detect hammerscale and other smithing waste but none was found, so the smithing hearth cake seems to have been imported from elsewhere. However quantities of iron oxide do seem to have been introduced to the drains from some source, staining the deposits and the lining stones orange. A low density friable material, which might be ochre precipitate (sf5440), was found in the charcoal-rich upper fill (80338) of the main drain (80259). The silting deposit (80406), in the small tributary drain (80404) contained a lump of siliceous residue from decalcified limestone (sf5498), which was presumably introduced, as limestone is unlikely to be present in the natural gravels.

The only glass find was sf5424, the piece of post-medieval material recovered from the fill (80391) of posthole (80392). A piece of post-medieval pottery was recovered from (80268), the general demolition deposit that underlay the ploughsoil.

Dates

Table 8. Radiocarbon dates from the clay-walled roundhouses in Area K7 (PRN 31595)

Lab ID	Context	Cut	Feature type	Material	Radiocarbon age (BP)	Calibrated date (95% probability)
Structure 80248						
SUERC-81369	80408	80409	Posthole	charred cereal grain	2210 ±24	370–200 cal BC
SUERC-81370	80370	80259	drain	charred cereal grain	2385 ±24	540–390 cal BC
SUERC-81371	80358		roof collapse?	charcoal: young oak	2330 ±22	420–370 cal BC
SUERC-87074	80334		roof collapse?	charred wheat chaff	2148 ±24	360–100 cal BC
SUERC-87075	80334		roof collapse?	charred wheat chaff	2215 ±24	370–200 cal BC
Structure 80249						
SUERC-81373	80219	80218	stakehole	charcoal: alder/hazel	2286 ±24	410–230 cal BC
SUERC-87073	80228		hearth deposit	charred cereal grain	2300 ±20	410–360 cal BC

Seven radiocarbon dates were obtained from the roundhouses. Structure 80249 proved to have little datable material so only two dates could be obtained from that structure. Due to the few dates from structure 80249 it was not possible to try to compare the dates of the two buildings so all the dates were modelled together as one phase of activity. This suggests that activity within the roundhouses began in 535–395 *cal BC* (95% probability), and probably in 450–400 *cal BC* (68% probability). The activity persisted for 55–365 years (95% probability), and probably for 65–195 years (68% probability). It ended in 355–135 *cal BC* (95% probability), and probably in 350–255 *cal BC* (68% probability). Like the stone-walled roundhouse settlement these buildings were Middle Iron Age in date. The model suggests that the clay-walled roundhouses may have been built before the stone-walled roundhouse settlement but were probably in use at the same time. It was not possible to apply secure stratigraphical constraints to the model that might have improved its precision so these dates must be considered a general range for the two buildings. The archaeological evidence suggests that the buildings were sequential but does not firmly identify the order, though it seems probable that structure 80249 was the earliest, and the dates could be interpreted to support that though they are not robust enough to do so.

In structure 80248 an extensive charcoal-rich deposit (80334 and 80358) was interpreted as possibly the remains of a thatched roof that had burnt down and collapsed onto the floor of the building. The wheat chaff that this contained including spikelet forks, glume bases, and chaff culms, some of which were dated, suggests a straw thatch. In this case dates SUERC-87074 and SUERC-87075 may date the last thatching of the roof before it burnt down and represent the end of the use of this building.

Interpretation

These structures are interpreted as clay or clay and stone-walled roundhouses, although the evidence for the walls is slight. Structure 80249 did not have postholes appropriate for a timber structure and if the walls were stone they must have been entirely robbed out. Circular buildings with thick clay walls do not need posts to support the roof and capped drains have been found in buildings with convincing traces of clay walls. In structure 80248 some posts might have had a function in the walls but they do not appear able to have supported the roof. The quantity of stone over this area strongly suggests a significant stone component in the wall but this was not good building stone and was more likely to have been used within a clay matrix.

The likely wall lines of the two buildings probably overlapped so they are unlikely to have been contemporary. The drain from structure 80249 would also have flowed directly into 80248 if they were in use together. They must therefore have been sequential but there was no stratigraphic information to determine which came first. Structure 80248 seems to have burnt down and its gradual covering by colluvium might suggest that it was the last structure otherwise it might have been more deliberately covered over and levelled. However if feature 80319 really was the end of the internal drain of 80249 it would demonstrate that this structure was the latest. This may explain why

the walls of 80248 were pushed into the terrace hollow.

It is possible that the line of postholes crossing structure 80249 did not belong to it but to a later structure, which might explain some of the other postholes in the areas, but there is no good reason to assume this. Both structures seem to be essentially single phase. There are some sequences in the use of structure 80248 but the changes are minor, with a drain extended and a bit of paving added, so there is little to suggest a very long duration of use.

The main question is the function of these structures. Structure 80249 with its central hearth and question-mark drain is typical of clay-walled roundhouses in North Wales that are confidently interpreted as domestic buildings. The spindle whorl supports this even though there were few other finds. Several of these buildings have a pit at the start of the drain. Perhaps waste water from domestic processes was dumped into the pit and allowed to flow out through the drain. However the drains in structure 80248 seem more specialised. There seems at one stage to have been two pits emptying into separate drains, which only joined to exit the building. As well as subsidiary drains and other large pits. The best preserved pit at the end of the main drain may have had wooden lining and both pits were capped with stone, perhaps suggesting storage or processing by soaking rather than discarding waste water. The amount of iron oxide in the silts of the drains also raises the question of what kind of fluid was being put down the drains. The possible ochre deposit may indicate the processing of some minerals, for which the hammerstone found could have been used but there seemed to be no waste surviving from this process and a single hammerstone might come from anywhere, and there was no grinding stone to go with it. The pieces of slag seem to be too isolated to indicate copper or iron working and there was no convincing furnace. In fact although the building probably burnt down there is little evidence for much use of fire inside. The proposed hearth is very slight and could be the result of scorching of the existing deposits during the burning event. The capping over the pits and the isolated location might suggest a smelly organic process and the iron might come from organic sources rather than from raw minerals. Stanley found a V-profiled stone-lined drain in a building he excavated at Twr (PRN 3806). He states that “much ferruginous ochre” was found in the drain (Stanley 1870, 153), very similar to those in structure 80248. A stone used to cap the drain also had a perforation in it (Stanley 1870, 162) reminiscent of the stones in pit 80372 in structure 80248.

A comparison might be made with structure 80527 in Area K9, about 110m to the south. This is also interpreted as a clay-walled structure and it was probably about the same size at about 8m internal diameter. It also had stone-lined drains, though these were mainly outside, rather than inside the structure. In this case the structure was not domestic but industrial as it had a boulder hearth, other hearths and many pits. Pottery dates it to the late Roman period so, although similar building techniques were being used, this was much later than the two houses discussed here. It does indicate a continuation of building traditions, even if these were no longer used for domestic buildings.

Area K5 and the potential of another roundhouse settlement (PRN 14602)

See figures 88 and 89

Area K5 lies towards the northern end of the site, to the east of Lôn Trefignath. The field is roughly triangular and the A55 trunk road runs on its north-eastern side. The topography is fairly level with the ground rising to the south of K5 to form a small rounded knoll. The knoll is formed of schist bedrock covered by glacial gravels but where the natural subsoil has been exposed to the north it has generally been glacial clays.

Geophysical surveys have been carried out on parts of this area in 2001 (Davidson 2002) and in May 2004 (Donaldson 2004) but these produced unclear results. The area has also been subjected to 3 phases of evaluation trenching; in 2001 (Davidson 2002), in 2004 (Smith 2004) and later in 2004 (Davidson *et al* 2004; Davidson and Roberts 2004). These reports give details of the results but all the information has been compiled into a single plan (figure 88). The trial trenches revealed a stone-capped drain, and various pits and gullies. The densest area of archaeological activity included stone spreads, some burnt and patches of yellow clay, possibly floor surfaces. A raised area of stones was interpreted as a possible clay and stone wall. Other possible wall footings were associated with a clay floor. A stone-built culvert is assumed to be the same as one on the same alignment found on the western edge of Area K5, and is probably post-medieval in date but further excavation might prove this assumption wrong. A stony deposit in trench 13 (1303) produced 2nd century AD mortarium sherds (sf2247) and fragment of a large crucible (sf 2248) was found nearby. A sherd from trench 54 however proved to be probably medieval not Roman (sf2051). A single struck flint flake was recovered from test pit 74 dug in 2006 (PRN 36276), though this is not enough to suggest significant earlier prehistoric activity.

In 2007 a strip, map and sample evaluation was carried out on a narrow corridor down the western edge of Area K, known as K2. A concentration of archaeology was found and a 3m by 5m extension (K3) was dug on the east side of the original trench (figure 89). This revealed a linear spread of stones (22050), about 1.0m wide, interpreted as possibly a wall footing. Almost continuing the same line was a rough line of stones (22047), which appeared to be the remains of a kerb or possibly a wall face. These contexts lay on the south-western side of an area of clay. This was in several different layers (22045, 22052, 22053) and appeared to originate from the natural boulder clay but it had been dug out and spread as layers about 0.1m deep. The layers overlapped and under them was sealed a thin grey layer (22048, 22054) with flecks of charcoal and two fragments of cattle-sized bone (sf3050). It is suggested that the clay deposits formed a floor and that the grey layer beneath is the remains of the buried soil on which this was laid with some remains of occupation activity in the buried soil. The area was probably enclosed by a wall represented by 22050 and 22047, although the shape of this structure could not be determined in the excavated area. A straight shallow gully (35003) cut across the northern part of the trench extension, but this may have been the remains of a shallow post-medieval ditch or drainage channel. No diagnostic finds were discovered and no clear building plan could be discerned so it is hard to date the proposed structure in this area, however the use of clay floors is reminiscent of the main roundhouse settlement in Area B2.

Immediately north-west of Area K3 a 19th century stone-lined culvert (19059) cut through the site. This was identified in the narrow area that was stripped along the edge of the field and the section of the culvert was recorded (figure 89.2). The culvert was 1.2m wide and 0.7m deep and the sides were lined by large stone slabs. The culvert may have fed a well at the farm of Bone Dêg, just across Lôn Trefignath (figure 88).

North of the culvert was a gravel and clay surface (20069), measuring 3.4m by 3.1m. This was cut by four features (20065, 20067, 21020, and 21022). Feature 20065 was only 0.1m deep and a stone embedded in the natural below projected through it, making it appear to be probably just a natural hollow. However feature 20067 was 0.3m deep and steep-sided with stones in the fill that could have been post-packing stones. Features 21020 and 21022 were up to 0.22m deep and had stony fills, though nothing large enough or placed in a way to suggest packing stones. Feature 20067 is likely to have been a posthole, and feature 21022 also had steep sides and a flat base and could have been a posthole. Feature 21020 was less regular with sides sloping at quite shallow angles and was more likely to be a stone-filled pit. No finds were recovered and the significance of these features is unclear but their proximity to the possible structure in Area K3 could indicate that they are part of a wider spread of archaeology extending under the baulk to the east.

The work done so far indicates a probable settlement in the southern part of Area K5. The Roman finds from the evaluation were few but hint that the settlement may have continued into the Roman period. The features are suggestive of the floors and drains of roundhouses with some hints of walls. The full nature and extent of the settlement is still unclear, but some of the features seen in Areas K2 and K3 may be part of this. No stone roundhouse walls have been identified, but trenches in Area B2 proved poor at locating roundhouses even when large stone walls were present. Some possible stone footings for clay walls are suggested and several areas of clay flooring similar to that seen in the roundhouses in Area B2.

This suggests that Iron Age and Roman settlement was concentrated around the foot of the knoll on which the Early Medieval cemetery was located, possibly implying that the earlier settlement influenced the location of the later cemetery or that the Roman settlements were still occupied in the Early Medieval period. The settlement in Area K5 has the potential to infill a gap in the Iron Age, Roman and Early Medieval landscape, although it remains to be seen whether the evidence is there to fulfil this potential. It is certainly difficult to make any definitive statements about these periods and the relationship of the settlements and activity areas to each other without knowing what is in Area K5.

Roman period

Building complex in Area K9 (PRN 31596)

See figures 90-97

The remains of a group of buildings was located in Area K9 next to the lane (centred on SH 25665 80765). This was slightly sheltered by the slope of the ground towards the north-east and overlooked the marsh in Area K6. The complex consisted of a probably square stone building, a clay-walled circular structure and numerous small timber structures. Finds dated these to the Roman period.

Structure 80526

Figure 91

Structure 80526 was a building with at least stone foundations and it is proposed that this can be reconstructed as a small square building, measuring about 5m by 5m internally and orientated south-west to north-east (plate 154). This was constructed on a relict soil (80828) that sealed some earlier, presumably prehistoric, features described above. However there were some features cut through the relict soil but sealed by the building. These included a series of pits under the northern corner of the building. It is assumed that the relict soil was essentially the remains of a ploughsoil covering the early features and that it had formed in a hiatus in the use of this part of the site. It is suggested that the ploughsoil built up during the Iron Age and that the intercutting pits could be Iron Age in date. However they were immediately beneath the surviving stones of the wall and could also be Roman period in date, perhaps pre-dating the construction of the structure by only a short time.



Plate 154. Structure 80526

The series of pits started with pit 80905, which was sub-circular in plan and measured 2.6m in length, 2.1m in width, and 0.15m in depth, with almost vertical sides and a fairly flat base (plate 155). It had a thin layer of silt in the base but was mainly filled by firm yellow clay (80820), which appeared to be redeposited boulder clay. This layer produced a flint flake and was partially covered to the north by a deposit of grey-brown silty-clay (80808), which produced an utilised river pebble (sf6000), a broken hammerstone (sf6001), and a chert flake (sf6002). The fill of pit 80905 was cut by another pit (81292) on its north-western side. This pit had an uncertain shape in plan due to heavy truncation, but the surviving limits of this pit showed that it measured 0.9m in length, 0.75m in width, and 0.35m in depth, and had steep sides and a fairly flat base. The pit had two fills, the lowest was a



Plate 155. Large pit (80905) under the corner of Structure 80526

pale clayey silt, which may have formed a clay lining. The upper fill was cut by two pits (81295 and 81297), both sub-circular in plan. Pit 81295 measured 0.9m in diameter and 0.37m in depth, and pit 81297 measured 1.3m in diameter and 0.35m in depth. Both pits had stony fills possibly to ensure a stable base under the wall. Pit 81297 was cut by another pit (81299) to the south-east, which measured 1.0m in length, 0.7m in width, and 0.35m in depth (figure 93.1).

To the south-east another small pit (80907) might have been contemporary with these. It also cut the relict soil. Pit 80907 was oval in plan and measured 0.9m in length, 0.65m in width, and 0.12m in depth, and had frequent stones, burnt clay patches, and charcoal flecks within its fill. If the reconstruction of the Roman period building as a square structure is correct then two pits or postholes (80651 and 80653) would have lain under the wall and could have been related to this early activity rather than the adjacent postholes. The lack of surviving stratigraphy or datable artefacts makes this purely conjectural.

The north-western side of the building (structure 80526) was defined by a straight stone wall which measured approximately 1.0m in width and just over 5.0m in length. This wall was constructed with internal (80823) and external facing stones (80825) and a rubble core (80824), but the external face was not well preserved. The wall was composed of small sub-angular slabs bonded together by a brown sandy clay-silt. At the north-eastern end of the wall two *in situ* stones (80868) and a slightly displaced larger stone (80867) indicated the northern corner of the building. This corner overlay the earlier intercutting pits.

While the wall was built directly on the relict soil the area for the floor to the south-east was prepared by levelling it out, creating a shallow terrace (81091), up to 0.15m deep, of which the north-western and south-western side had survived (see figures 93.2 and 93.3 for sections through the structure). A similar rectangular terrace (81090) was dug on the other side of the wall but this is assumed to be exterior to the building as there were no floor layers in this area. The south-western side of terrace cut 81091 was approximately 2.0m long before gently petering out, and this indicated the position of the south-western wall of the building although no traces of foundations survived.

The interior terrace cut (81091) was covered by a rough floor make-up layer (80810), 0.2m thick covering and area measuring 3.4m by 2.8m. This deposit was composed of stony brown clay-silt, and was built up against the internal wall facing stones (80823). The floor make-up layer (80810) was partially covered to the south by floor surface deposits (80858 and 80898). Deposit 80858, a stony brown-yellow sand-silt, was only 0.05m thick, and contained a cache of limpet shells (sf6129, sf6130). Deposit 80898 was a slightly stony dark brown sandy clay-silt, which was 0.08m in depth. Both floor deposits were covered by a thin (0.05m thick) layer (80811) with large flecks of burnt clay and charcoal. In this deposit was a shallow hollow (80896), 0.6m in diameter, and 0.07m deep, containing two layers of flat stone slabs (80812) laid in a rough circle. Above the stones was a layer of yellow silt-clay (80813). Although there was little obvious burning this feature resembled a hearth.

Towards what was probably the centre of the building was a large pit (81041). This was cut into the relict soil deposit (80828) and partially sealed by the floor make-up layer (80810). Pit 81041 measured 2.0m in length, 1.6m in width, and 0.75m in depth and had an irregular shape in plan resembling a main oval pit with two shallower ancillary pits (inset figure 91). It is not clear whether the irregular shape of the pit was intentional, or as a result of the main pit cutting through two earlier natural hollows. The upper edges of the pit were gently sloping, but the



Plate 156. Pit 81041 excavated, showing side slabs

sides became stepped to the east and to the north-west, before becoming almost vertical with a slightly concaved base, which sloped gently to the north. The main pit had three large blue-grey schist slabs (81098) averaging 0.65m in length, 0.35m in width, and 0.1m in depth set on end around its sides (figure 93.4). The three orthostats probably supported capstones (80814) over the pit (plate 156). A large schist slab, measuring 0.8m long and 0.5m wide, rested across the pit with one end supported on one of the orthostats. The other orthostat that should have acted as a support seemed to have slipped and no longer performed its function, causing the capstone to slump slightly into the pit. Two other slabs lay side by side and measured approximately 0.4m in length and 0.3m in width. They were partially supported on the first slab and partially on the edge of the pit. A single course of smaller stones (81274) was wedged under the slabs around the southern edge of the pit presumably to level and partially support the slabs.

The pit was therefore an empty, roofed chamber. Once it had gone out of use the pit became half-filled with a brown loam (81100) containing some flat slabs. This fill also produced a quarter fragment of a flat disc rotary quern topstone (sf6173), nine fragments of Black Burnished Ware pottery (sf6174), and one fragment of degraded ceramic (sf6457). A fine silt (81273) built up against the sides of the pit. Both these initial fills were probably the result of gradual erosion, but a deliberate backfilling episode followed when a stony deposit (81101) and two upright schist slabs (81102) were used to fill the north-western end of the pit, leaving a void beneath the capstones to the south-west (plate 157). This void silted up over time with a soft dark grey-brown silt-clay (81074), while to the north-west further stone was added to the pit in the form of a row of tightly packed, irregular flat schist slabs (80816) set on edge (figure 93.5).

The capstones were sealed beneath the rough floor make-up layer (80810) for the building, but the backfilling stones protruded through this. It is therefore possible that the pit was in use inside the building with an access into



Plate 157. Pit 81041 with capstones and backfilled stone

the north end. The pit slowly filled in through this access hole and the remaining gap was eventually blocked by stones being jammed into it. This presumably occurred when the building went out of use, as the blocking stones would have protruded through the floor.

As the structure was abandoned various stony demolition deposits spread either side of the wall and across the internal area of the building. A general stony deposit (80815, 80818, and 80817) within the interior of the structure and over the internal floor cores was probably demolition from the wall. To the south-east and exterior side of the wall, two stony deposits 80827 and 81082 spread away from the structure and were covered by what appeared to be a relict ploughsoil deposit (80831). This was cut by a corn dryer (80835, PRN 76100). Although this feature was located adjacent to structure 80526 the stratigraphy indicated that it was of a later date and this was confirmed by radiocarbon dating that showed the corn dryer to be Early Medieval in date. This feature, a few other late features near it, and another corn dryer (80924) close to the north-eastern corner of structure 80526, will be discussed below with the other corn dryers below.

Structure 80527

Figure 91

Structure 80527 was located approximately 19.0m to the south-east of structure 80526. It is interpreted as a clay-walled sub-circular building with an industrial function (plate 158). (See figures 93.6 and 7 for sections through this area).

Structure

The structure was largely defined by the distribution of features within it, but there were small pieces of evidence, which hint at the existence of a wall. The activity was largely restricted to an area defined by a slight hollow or terrace (81318), clearest on the western side and within this seems to have been a clay floor as a compacted clay layer (81023) covered much of the northern interior of the structure. This suggests a roofed structure; otherwise the clay floor would not have functioned. Around the north-western side of the structure was a rough arc clay (80855/80857), which seemed to be natural in origin but may have been altered by presence of a wall above. It was thought that a series of twenty small stakeholes (81317) followed the inner arc of deposit 80857, and may have been associated with a wattle and daub wall. Furthermore, lying above these stakeholes was a band of firm, mottled brown-orange sandy clay-silt (80931), which arced around the north-eastern quadrant of the structure. This deposit was only a thin skim of material, measuring on average 0.9m in width and approximately 5.0m in



Plate 158. Structure 80527 fully excavated apart from boulder hearth, showing density of features

length, but in conjunction with the stakeholes could represent the degraded remains of a clay-wall with a wattle inner face. However the arc of deposit 80931 suggested in interior that was much too small and would not have included many of the features in use in the structure. A circle about 8m in diameter running from the two possible entrance postholes would include all the internal features and would run along the top of a slight scarp (81318) in the south-western arc, which may be the only hint of the wall line. Deposit 80931 may indeed have been from the wall but probably eroded material from after the abandonment of the structure.

Ten postholes were located within the structure (80920, 80997, 81036, 81108, 81161, 81163, 81169, 81238, 81250 and 81303), eight of them towards the western limit and cutting through the natural glacial clay. All of the postholes were sub-circular in plan and measured between 0.2m-0.5m in length, 0.2m-0.5m in width, and 0.10m-0.48m in depth. The fills of the postholes varied between an orange grey clay, a dark brown clay-silt, and a black silt-sand with stone packing. None of the postholes produced any artefactual evidence. Most of the postholes did not seem to have a structural function, but those on the western side of the area may have supported a porch. A gully (80918) running north from this area had an expanded and confused southern end that might indicate a disturbed posthole. If this was a posthole it would have created a neat rectangle with postholes 81238, 80997, and 80920. Postholes 81108 and 81036 were also paired across this possible entrance, making a fairly convincing porch plan. Two short irregular gullies (80999 and 80973) ran south from posthole 80997, and gully 80918 may have run north from a porch posthole. These gullies were between 0.1m and 0.2m in depth with irregular sides and undulating bases. All three were filled by a firm brown clay-silt. They do not seem to have been drains and might have been related to the wall, either its construction or facing. Two shallow gullies (80960 and 81233) running directly across the entrance might have been post trenches for some kind of door surround or blocking construction.

Internal Activity Phase I

Inside the structure was a myriad of features, which included several pits, postholes, stakeholes and gullies, many cut into the clay floor (81023). The most prominent features were located in the south-eastern quadrant of the structure and comprised a suite of features associated with an industrial process. These included a boulder-built hearth (plate 159), a flat hearth, a large stone mortar/bowl, and a rectangular stone-built structure with evidence of burning (firebox). These features were all contemporary and were set in conjoining cuts, the individual structures being packed in place with a firm bright yellow clay, which was also used as a levelling material between them. This clay extended further to the north and to the edge of a small stone-lined trough (cut 81219).

The cut 80938 for the boulder hearth (80839) was ovoid in plan and orientated north-west to south-east. It measured 1.7m in length, 1.3m in width, and 0.28m in depth, and had steep and concaved sides, and a concaved base (figure 94.1). The cut was packed with firm yellow clay (80883) and the main structure of the hearth (80839) was set into the clay. This consisted of four large sub-rounded granite boulders forming an open ended rectangle, the opening being to the south-east. Next, more firm yellow clay was used to cement the structure in place. A flat blue-grey schist slab (80940) was then placed on edge against the southern end of the granite structure, creating a lower chamber. The internal chamber of the hearth was sealed with a clay lining (80869) that had become reddened through use (plate 160). The base of the chamber was partially filled with two charcoal-rich deposits (81205 and 81206), that also contained burnt clay. These contained a hammerstone (sf6181) and a possible quern



Plate 159. Boulder hearth under excavation



Plate 160. Reddened clay lining in boulder hearth (80839)



Plate 161. Boulder hearth (80839) and stone bowl (81001) set into clay floor



Plate 162. Stone bowl 81001 in situ

stone fragment (sf6180), and 81206 extended through a construction (80950) built within the open end of the hearth structure. Structure 80950 was built of schist slabs, which extended approximately 0.7m in front of the open end of the furnace. These stones averaged 0.15m in length and the structure had clear side and capstones, although some partial collapse had taken place. Above these were another layer (80878) of larger flat stones, averaging 0.32m in length. The structure appeared to have been some sort of level working platform, or more plausibly a flue chamber used to supply air to the hearth. Fills 81205 and 81206 seem to have represented the latest use of the hearth and where it expanded beyond the structure deposit 81206 was cut by a later recut (81185) associated with the adjacent flat hearth (81308), which is described below. Once the boulder hearth went out of use it partially filled up with a clay-silt deposit (80866) mixed with silts, charcoal, fragments of clay lining, and fire-cracked stones, which produced a fragment of burnt bone (sf6462). The remainder of the hearth chamber was filled by a stony brown clay-silt (80840) with fire-cracked stone and charcoal which produced three fragments of burnt bone (sf6037, sf6043), and two sherds of post-medieval pottery which had made their way into the hearth due to animal burrowing. The top of the hearth was covered with a very stony demolition deposit (80833) which is discussed below.

The cut (81009) for the stone mortar/bowl (81001) was sub-circular in plan, with steep and concaved sides and a flat base, and was located approximately 1.0m east of the open end of the furnace structure (plate 161). The cut measured 0.58m in length, 0.44m in width, and 0.27m in depth. The firm yellow clay deposit was again utilised as packing material in the base and sides of the cut, into which the stone bowl was inserted (plate 162). The mortar/bowl (sf6149) was pecked out inside a small boulder of possibly conglomerate stone and the bowl itself measured 295 mm by 230mm and 140mm deep and had vertical sides and a flat base. Once the vessel had been inserted into the cut it was packed in place with more of the same firm yellow clay and small packing stones. Once the mortar/bowl went out of use it filled up with a stony material, very similar stone deposits forming part of the later use of the structure (see phase II below).

A stone-lined structure described as a firebox was located approximately 1.1m to the south-east of the open end of the furnace. Its cut (81137) was sub-ovoid in plan, with very steep and concaved sides and a roughly flat base. The cut measured 1.1m in length, 0.74m in width, and 0.14m in depth, and was orientated north-north-east to south-south-west. The firm yellow clay was used to pack and level the base of the cut before five schist slabs (80911), on average 0.3m long, were inserted to make vertical sides, and two slabs (81105) formed the base. These stones were almost square and had been discoloured by heat. The structure was filled with a firm dark grey-brown silt-clay (80912/81073) with frequent charcoal, burnt stone, and burnt grain, which also spread for 0.9m to the south of the structure, where three large flat stones (80913) were laid on top of it possibly forming part of a flue structure. The identifiable grains were dominated by oat with significant quantities of barley present. Although there were relatively few wheat grains there was quantities of wheat chaff. Where the wheat was identifiable to species this was emmer wheat (McKenna, volume 3, part XIX.4). The presence of burnt grain suggests that this structure was a corn dryer but it was very small. The presence of oats often indicates a medieval date but oats has been found on other Roman period sites in the area, including Tŷ Mawr, South Stack (Williams 1986). Oats seems often to be found with barley, as in feature 81137, though usually the barley is the dominant grain. It is possible that oats and barley were sown together as a dredge or maslin, a combined crop that could be used as fodder, for brewing, or for human consumption (McKenna, volume 3, part XIX.4).

Immediately to the north of the boulder hearth was a flat hearth set in a sub-square shallow cut (81308), measuring 0.76m in length, 0.6m in width, and 0.09m in depth (plate 163). The hearth seemed originally to have had a kerb of small stones and was filled by a sequence of clays, some yellow and some burnt bright red-orange clay (81166) (figure 94.2). These had built up against the stones of the boulder hearth. The clay was sealed by a charcoal-rich deposit. On the western side by a small straight gully (81260) entered the hearth, which may have acted as a flue. Deposit 81166 contained four large and flat schist slabs to form a firm surface for the hearth. In an upper clay layer (81257) was found a well-preserved iron cleaver (sf6186) with a large blade and cylindrical handle, forged from one piece of iron (plate 164). A shallow hollow (81185) cut the eastern side of the hearth. The fill of this was darker and siltier with charcoal and fire-cracked stones, and contained a fragment of iron nail shaft (sf6452). This hollow also cut through the backfill deposit of the boulder hearth structure to the south (as mentioned above), and possibly dates to when the boulder hearth went out of use. Sealed underneath the flat hearth was a small oval pit (81263), measuring 0.65m in length, 0.36m in width, and 0.13m in depth (figure 94.2).

To the north of the hearths were numerous pits and stakeholes scattered around a stone-lined a trough (81220) (plate 165). The cut (81219) of this feature was roughly ovoid with vertical sides and a flat base, but the trough (81220) was rectangular (figure 94.3). The trough measured about 0.70m in length, 0.55m in width, and 0.45m in



Plate 163. Hearth with cut 81308 to north of boulder hearth



Plate 164. Iron cleaver (sf6186) in situ



Plate 165. Stone lined trough 81220

depth, and constructed of five schist side slabs and a base slab packed and bonded with firm, light orange-yellow clay. All the seams of the slabs were then sealed with the same light orange-yellow clay used for packing. The trough had a thin basal deposit of loose mid red-brown sand-silt, which presumably had accumulated while the trough was still in use. The south-western side of the trough lacked side slabs and on this side was a broad, shallow hollow (81211), 0.15m deep, which seemed to have been in use with the trough. Both the trough and hollow were backfilled with a stony deposit (81221), which included fire-cracked stone and charcoal, and produced a grooved stone (sf6182, volume 3 Fig VI.1.3) and a flint scraper (sf6442). A straight, narrow gully (81280) fed into the trough on the western side. This contained a stone on edge and it may have been a slot of a slight structure, with the stone as part of the packing. A similar stone on edge in the top of the fill of a pit (81284) suggests that the slot cut the pit and the stone was packing in the former.

To the east the yellow packing clay of the trough was cut by a pit or posthole (81054) containing six sherds of Black Burnished Ware pottery (sf6131, sf6147, sf6161). Once the trough and hollow were backfilled, the hollow was cut by two roughly circular pits (81222 and 81248), the latter of which was cut by another pit (81086) to the south-east. This pit had had been initially half backfilled and had a layer of small flat schist stones laid flat, upon which a second backfill was added. This pit also cut an earlier small pit (81107), which produced fragments of burnt bone (sf6324). This intercutting complexity was typical of the rest of the activity in this area but there was little to suggest that there was much time between the cutting, filling and recutting of pits.

Most of the pits were approximately sub-circular and rarely more than 0.55m in length or over 0.25m in depth. Some were filled with dark grey-brown clay-silt and others with an orange-brown clay-silt. In some cases pits with the darker fill seemed to be earlier than features with the orange-brown fill, but most seemed to be associated with the process taking place in the trough. To the north-west of the trough was a gully (81275) with eight stakeholes cut into its base, and a number of probable packing stones embedded into the sides of the gully. More stakeholes were located to the south and east of the gully, and slot 81280 ran roughly parallel to 81275, so these were possibly related and they defined a small sub-rectangular structure.

One pit (81037) to the east of the trough had multiple fills, which produced twelve sherds of Black Burnished Ware pottery (sf6155, 6157, 6159, 6168, 6449), an iron nail head (sf6166), five fragments of burnt clay (sf6167, 6158), one rim sherd of coarse ceramic (sf6156), one sherd of dark grey ceramic (sf6169), and a tiny curved piece of shale (sf2165). A later fill produced five sherds of Black Burnished Ware pottery, one with an iron repair (sf6030, 6151, 6152), an iron nail shaft (sf6171), a copper alloy droplet (sf6154), some burnt clay fragments (sf6153), and some small sherds of a coarse Ware ceramic (sf6170). The volume and variety of artefacts recovered from the pit could suggest the deposition of waste material.

In the north-western quadrant of the structure were three large pits 81131, 81143, and 81133, located to the north-west of the interior of the structure. The pits were closely spaced and ran in a line orientated south-west to north-east, with the largest pit 81143 being in the centre. This pit measured 0.65m in diameter and 0.25m in depth, and it either cut the end of drain 80861 (see below) or was actually a part of that drain. The pits had a layer of flat schist slabs (80979) placed over them, from which a piece of rotary quern stone was recovered (sf6176). Some of these may have capped at least the central pit but they could have been laid down after the pits were infilled. The pits all had a thin basal deposit of red-brown sand-silt under a black silt deposit, indistinguishable from a general layer across the site (80904).

One small feature (81110), little more than a depression 0.06m deep on the eastern side of the interior of the structure contained a blue glass gaming counter (sf6175).

Most of the features were sealed by charcoal-rich deposits that covered much of the interior of the structure (plate 166). The lower of these layers was a firm dark grey-brown silt-clay deposit (80847), only about 0.05m deep. Over this was layer 80904, a black clay, approximately 0.04m thick. These also had flecks of burnt clay and patches of clay. Presumably the charcoal and clay originated from the activity inside the structure, though the effectiveness with which these layers sealed the features below suggests that there must have been considerable mixing and spreading of the deposits after most of the features had gone out of use. Even the stone mortar and flat hearths were filled and covered by these deposits.

It was considered that some features cut 80847 but these seem not to have been genuine archaeological features. A rash of small features cutting layer 80847 were recorded as stakeholes (80984 to 80996, 81008) but these were very shallow, no more than 0.03m deep, not very convincing. They were probably just animal or root disturbance.



Plate 166. Structure 80527 partially excavated showing charcoal-rich occupation deposit covering interior of the structure

In close proximity to the stakeholes were a gully 81288 and a pit 81068. These were no more than 0.1m deep, were irregular and slight features, and can probably be attributed to animal burrowing even though the gully contained Black Burnished Ware sherd (sf6188).

Layer 80904 was very similar to the upper fills of some pits, especially pits 81131, 81143, and 81133, so it appeared that some pits were infilled while this layer was being deposited. Layer 80847 produced six fragments of burnt bone, one sherd of Black Burnished Ware pottery, and a hammerstone (sf6436, 6323, 6026, and 6133). Layer 80904 contained a variety of artefacts including a pot boiler (sf6132), fragments of burnt bone (sf6134, 6433, 6075), pieces of burnt daub (sf6058, 6136), a rim and a base sherd of Black Burnished Ware pottery (sf6056, 6057), a rubbing stone from a saddle quern (sf6065), a flat slab of schist with a central depression (sf6070), a small fragment of blue glass (sf6463), three iron objects (sf6073, 6074, 6067), and a rubbing stone (sf6076).

Drains and Gullies

Located on the north-western side of the structure was a complex of drains and gullies. Flowing downhill from south-west to north-east was a substantial drain (80881, 80929 at its northern end) that emptied onto a straight, level terrace (81279) (see below). The drain was 0.7m wide and 0.32m deep and lined with large schist side slabs, but no obvious base or capstones (figure 93.7). A rather disturbed drain (80861) ran into this part-way down its length. Drain 80861 seemed to be designed to drain from inside the structure. The drains were filled with a fine brown silt and 80881 produced burnt stone and four abraded sherds of orange ware (sf6219, 6072). The tail of the drain produced a tiny intrusive sherd of post-medieval white glazed ceramic, and two fragments of burnt bone (sf6244 and 6459). It also contained a shallow mortar (sf6144) made in a cobble (volume 3 Fig VI.1.5).

At its southern end drain 80881 split into two narrow channels (81021 and 81018), which appeared to be slots to hold the side stones. The drain cut a short section of a north-west to south-east aligned drain (81204) that had three surviving side slabs. The line of cut 81018 seemed to continue as a very rough and undulating gully (81013), which may have been a trench for slabs along one side rather than the main part of the gully. Near its north-eastern end drain 80881 also cut through another drain (80916), which lacked any stone lining and ran west then turned sharply north.

Internal Activity Phase II

See inset figure 91

Once the process that produced the black clay-silt deposit 80904 had ceased, the structure had a layer of flat, sub-angular stones (80859/80884/80899/80909/81155) laid down seemingly to create a new surface (inset on figure 91, figures 93.6 and 7, plate 167). The stones were in a matrix of dark greyish brown clay silt in which there was considerable evidence of animal disturbance. Some of the slabs were up to 0.5m long and laid quite flat but there



Plate 167. Stone deposits over structure 80527

were also many smaller stones and it was a uneven surface. The layer was generally about 0.12m deep but reached a depth of 0.5m in places.

A deposit of stones on the eastern edge of the surface (80842) was suggested during the excavation to be the remains of a wall. These stones were little different to those in the surface and probably represented a continuation of that.

There were no features cut from this level, but the surface produced a variety of artefacts including one sherd of Black Burnished Ware ceramic (sf6063), three sherds of Roman orange Ware ceramic (sf6053), and one fragment of burnt bone (sf6322). The top half of a rotary quern (sf6054) (plate 168) and a flat schist slab with a central depression (sf6069) were laid to form part of the stone surface.

The top of the infilled boulder hearth was visible at this level but it had been backfilled and could not have been in use (plate 169). It is suggested that the walls of the structure were still standing when this surface was laid down and that the structure was reused for a new function. Most of the finds from this level are likely to have been introduced from the activity below through animal burrowing. The absence of a hearth or pits relating to this level suggests that the structure may have been used for storage or for livestock and that few artefacts from this phase of use might be expected.



Plate 168. Rotary quern top stone (sf6054) in situ



Plate 169. Boulder hearth just protruding through stone deposits that backfilled it

Demolition Activity: Phase III

Once the activity associated with the stony floor deposit (80899) had ceased, the structure went out of use. This phase in the structure's history is typified by several stony demolition deposits, spread across the interior and exterior of the structure. The deposits consisted mostly of medium sized sub-rounded and sub-angular stones within a firm grey-brown clay-silt. There appear to have been smaller episodes of demolition, possibly from a clay and stone wall collapsing. Demolition deposits 80850 and 80901 were located to the south-east of the structure and produced a fragment of burnt clay (sf6033), and an iron socketed mortice chisel (sf6064), four pieces of daub (sf6062), one samian rim sherd (sf6059), and one rim sherd of Black Burnished Ware ceramic (sf6061) respectively. Towards the centre of the structure was a similar demolition deposit 80893, which produced a fragment of burnt bone (sf6466), and a piece of burnt clay (sf6060).

Next three general levels of demolition spread across the area, starting with stony demolition deposit 80846 (same as 80843, 80870, 80806, 80807, and 80838). This deposit produced a sub-rectangular iron object (sf6021), a waisted stone weight (sf6022), a half fragment of a blue glass bead (sf6464), fragments of burnt clay (sf6038), pieces of slag (sf6048), a broken rubbing stone (sf6039), one sherd of Roman orange Ware pottery (sf6055), a small hammerstone (sf6003, volume 3 Fig VI.1.3), and fragments of burnt bone (sf6453, 6006, 6465). Above this was demolition deposit 80834, which produced three sherds of Black Burnished Ware ceramic (sf6009, 6010, 6041), a sherd of samian Ware ceramic (sf6008), and a sherd of Roman orange Ware ceramic (sf6040). A final demolition deposit (80833) with a looser arrangement of stone mixed with ploughsoil produced a sherd of Roman orange Ware ceramic (sf6020), and a sherd of Black Burnished Ware ceramic (sf6025).

Pits and Postholes

Group A

Figure 91

Between and to the east of the structures 80526 and 80527 was an area of dense activity, consisting mainly of postholes and small pits (plates 170). The presence of stone packing material within the fills and steep sides of many of the features indicated that they were postholes. The smaller postholes measured between 0.38m-0.54m in length, 0.28m-0.46m in width, and 0.23m-0.30m in depth, while most were larger at between 0.50-0.90m in length, 0.40m-0.80m in width, and 0.25m-0.60m in depth. All of the postholes had steep sides and flat bases (figure 94.5-10). The postholes were all filled with a firm and stony mid grey-brown silt-clay, which did not contain any charcoal but the majority had large, flat and angular schist stones measuring on average 0.25m in

length. These stones appear to have been deliberately inserted as packing material and as post pads for some of the features. Many of the flat schist stones lay horizontally across the posthole occasionally at the surface or part way down, perhaps suggesting that the posts had been pulled out of the ground thus disturbing the post-packing structure, as opposed to the post decaying *in situ*. However one small posthole (80543) had a well-formed post-pipe (figure 94.5).



Plate 170. Pits and postholes forming group A, between structures 80526 and 80527

It was not possible to form a single structures from the layout of these postholes, and it is assumed that they supported several small structures, some contemporary and some successive. Most of the lines of postholes indicate a north-west to south-east axis to these structures; a similar alignment to structure 80526. The most convincing structure to be identified was a set of four postholes 80698, 80725, 80692, and 80731, of similar length and widths, and similar fills with packing stones, which formed a square. This feature was very similar to other four-post structures found elsewhere on the site, and was probably a granary or storage structure. Posthole 80692 in the south-west corner was a deeper than the others, at 0.6m in depth, while the other features ranged between 0.32m-0.45m in depth, though this does not necessary mean that they were not part of the same structure. Adjacent to this structure was another group of four postholes (80587, 80611, 80662, 80689) forming a square of similar size and orientation. Again posthole 80689 was deeper and larger than the others at 0.5m deep compared to 0.22-0.32m for the others. Posthole 80587 cut through the fill of posthole 80794, showing that there was a sequence of structures in at least part of this area.

Towards the centre of the spread of features were two large features (80681 and 80711) that were roughly ovoid in plan and measured between 1.0m-1.08m in length, 0.89m-0.9m and width, and 0.35m-0.39m in depth. These features had multiple fills, which included large angular schist pieces resembling packing stones, and these were probably also postholes. These both cut smaller features (80687 and 80713) that may have been small postholes, though neither had post-packing stones. A line of four postholes (80702, 80720, 80760 and 80789) ran west-south-west to east-north-east on a different alignment to the other potential posthole rows. These postholes were between 0.21m and 0.40m deep. No convincing parallel row could be identified to form the other side of a rectangular structure with these postholes.

Within the spread of features were four pits 80655, 80659, 81213, and 80729, which appeared to be fire pits (figures 94.4 and 11). Two of the pits (80655 and 80729) contained charcoal and evidence of *in situ* burning. Pit 80655 had fragmentary traces of a burnt clay lining and resembled an earth oven. Pit 80729 was not as deep and may have been an open fire. There were no finds from any of the features in this area to give an indication of date.

The group A features were defined on the west and south by a broad scarp (81158) that became a shallow ditch (81148) at its south-eastern end (figures 95.1 and 2). The northern end of this ran towards, and possibly under, structure 80526. Filling the south-eastern end of the ditch was a sequence of backfilling and use. An early pit (81154) was associated with the ditch but both were sealed under a colluvial deposit (81196). This seems to have been at least partially revetted on the north-eastern side by stone slabs stacked and angled slightly into the slope (80875). Built over and cut into this colluvial deposit, which infilled the ditch, were the remains of a possible structure, defined on the north-east side by postholes 81114, 81116, 81118, 81120 and 81190 and on the south-west by smaller postholes or stakeholes (81125, 81127, 81188 and 81194). Running between these and possibly forming the north-western end was a slot (81152) with packing stones to support posts or planks and a posthole halfway along its length (figure 95.3). The floor of this structure was formed by a small area of cobbling (81121) and slabs (81210), partially replaced by a floor of clay and slabs (81083). There were also slabs (81156) west of slot 81152, which may have continued this surface. In the southern side of the structure was a large pit (81200), measuring 2.0m by 1.5m and 0.5m deep. This seemed to be related to the first floor layer and once it was infilled it was cut by a smaller pit (81150) that seemed to be related to the later floor layer. This pit was filled with yellow clay and had two large stones resting against the sides (figure 95.1, plate 171). A rough wall (81084/81209) probably ran east-west on the top of the slope to the south of this area of activity. When the area went out of use the wall to the south collapsed and partially covered the earlier features.



Plate 171. Section through pits 81200 and 81150 and associated floor layers

It is likely that this structure only had two solid walls and may not have been roofed or have been only partially roofed. The pits seem to have been integral to the function of the structure but the function of the pits was not clear. Tumble deposits from structure 80527 covered some of the features in this area and it is possible that structure 80527 was contemporary with the activity in this area. The two foci of activity were separated by what appears to be a narrow trackway; a level area defined by scarps 81208 and 81279, described below.

Group B

Figure 91

To the west of pit/posthole group A and divided from it by a blank area was another group of pits and postholes. This area consisted of postholes and pits. To the south of this group ran a fairly straight north-east facing scarp aligned north-west to south-east (80554), possibly the edge of a trackway as discussed below. Some features were only seen when the fill (80553) of this feature was removed but it is likely that they did cut this layer but were not recognised within it.

There were a number of postholes, which contained possible stone post-packing material (figure 95.4-7). These postholes can be separated into two types using their fill to characterise them. Postholes 80569, 80579, 80581, 80598, and 80632 all had grey-brown gravely fills and were from 0.42m to 0.64m long, 0.34m to 0.54m wide and 0.13m to 0.30m deep. These postholes were to the north of the group and generally ran in a line from north-west to south-east. Postholes 80964, 80952, 81056, 80972, 81064 and 81060 all had fills consisting of brown firm silt sand ranged in depth from 0.29m to 0.42m. These postholes are more to the south of the group.

In addition to the two types above there were also possible postholes with no packing stones but with similar fills to those described above they had similar fills to the above two forms of postholes. Features (80630), (80626), (80622), (80620), (80618), (80577), (80583), and (80614) had grey gravely fills and (80970), (80968), (81078) and (81062) had brown sandy silt fills. These possible postholes varied considerably in size.

Postholes 80618, 80626, 80630, 80632, 80952 and 80968 could have formed quite a neat 6-post structure, but few other meaningful patterns could be discerned.

Amongst the concentration of postholes was an elongated pit (80946) measuring 1.27m in length, 0.74m in breadth and 0.26m in depth. This had a thick yellow clay lining with a significant amount of charcoal and burnt clay fragments. Evidence of *in situ* burning of this clay lining possibly implies an earth oven however the depth suggests perhaps an open fire. There were two shallow circular possible firepits (80560) and (80556) further west.

Group C

Figure 92

About 8m to the east of group A was another group of features. The area between these groups was stripped and inspected so the gap seems to be genuine. Activity in this area was concentrated within an irregular hollow (80540) filled in by colluvium and stones. There were various postholes, some substantial and some small, and pits were also scattered about the area. One pit (80441) held a trough (80440) built of stone slabs and measuring 0.90m by 0.73m and 0.34m deep, with a clay layer in the base to waterproof the feature (figure 96.1, plate 172). There was no trace of a capstone and a corroded iron object, possibly a nail shaft (sf5571), was found in the upper part of the fill. An adjacent pit (80449) also had traces of a stone lining and may have been a more damaged trough (figure 96.2). A shallow gully (80572) ran into this pit from the north-west. The gully was thought to run from a posthole (80545), but stones on edge in the upper fill of the posthole appear to be lining stones in the gully, which presumably cut through the infilled posthole (figure 96.3). These features are suggestive of a specific task possibly involving water or other fluids.



Plate 172. Trough 80440

These features were associated with a group of small pits or possible postholes (80485, 80548, 80536, 80499, 80501, and 80481). Although some of these had stones in their fills there were no very convincing packing stones. An arc of similarly uncertain features surrounded this area. Some of these features, such as 80463 were up to 0.4m deep and fairly convincing as postholes (figure 96.4), but others (e.g. 80447) were only 0.08m deep and too truncated to be sure of their function. However postholes 80475, 80463, 80447, 80492, 80533, 81311, 80466 sat on or close to a circle of about 10m in diameter that could have defined a post-built structure, unfortunately rather short of postholes on its western arc. The hollow 80540 might be seen as crude terracing within this structure.

Finds and dating

Figure 97

The majority of Black Burnished Ware from the site came from structure 80527 and most date to the 3rd and 4th centuries AD. The Black Burnished Ware was found mainly in the main phase of activity within the structure with 14 sherds coming just from pit 81037. This dates the use and presumably the construction of the structure to the 3rd and 4th centuries. Some Black Burnished Ware is also found in the demolition deposits.

Nine sherds of Black Burnished Ware were found in the fill of pit or chamber 81041 in the centre of structure 80526. This deposit was backfill from after the feature had gone out of use but it seems probable that the finds came from the use of the structure. There was also a sherd of a grey bowl and an eroded samian rim sherd from this pit. Another sherd of Black Burnished Ware came from cleaning the old ground surface just outside the structure. This suggests that both structures are of the same date.

As well as the Black Burnished Ware a small quantity of samian ware sherds were found and Webster questions these (Webster, volume 3 part II) as they are second century AD and not accompanied by any coarse ware of that period. A single small samian sherd was recovered from the fill of the pit (80441) in the middle of structure 80526, but the other 4 sherds from this area were from structure 80527. All the samian ware from structure 80527 came from demolition deposits. The samian sherds were also mostly abraded and small, compared to the much fresher and larger Black Burnished Ware sherds. It is suggested that as structure 80527 was probably clay-walled that the samian Ware was incorporated into the wall, being collected from where ever the clay for the wall was sourced. It is possible that hollows 81158 and 81148 were caused by digging material for the wall in close proximity of the structure. However, the natural subsoils here were mainly gravels with relatively little clay, so it is likely that the majority of material was sourced elsewhere. Possibly some of the pits in Area B3 might have been clay quarry pits. These were only about 45m away and in a clay-rich area but generally seemed too regular for quarry pits, nor is there any firm evidence of Roman activity in this area. Perhaps both the quarries and the earlier activity were within the unexcavated area immediately south-west of Lôn Trefignath, opposite Area K9.

The fragment of a blue glass bead (sf6464) from the demolition spread is probably fourth century AD in date, though similar beads are occasionally found in the second and third centuries. It is likely it was lost during the use of the structure. The blue glass gaming counter (sf6175) from the interior of the structure is small for a Roman gaming counter and seems to have been made from recycled glass so Cool (current report, vol 3, part IV) suggests that it could have been locally made, possibly used for jewellery rather than for gaming. The scatter of Roman glass found over Area B2 may be associated with activity within or near Area K9 rather than with the roundhouse settlement. The pieces from B2 suggest glass being collected for recycling and reuse. This seems to have involved reshaping by knapping as much as remelting. However, it cannot be proved that this recycling of glass took place within structure 80527.

Apart from post-medieval contexts very little metal survived on the site so 14 pieces from this area was notable. All but one, a possible nail (sf5571) from trough 80440 in the group C structure, came from structure 80527. Several of these came from demolition deposits, including a mortice chisel (sf6064), but these might be considered to have originated during the main period of use of this structure. Nine pieces came from features and deposits relating to the use of the structure. Most of these metal objects were iron but there were two small lumps of copper alloy (sf6154 and 6068) which might hint at copper or bronze working in the structure. Most of the iron objects are amorphous lumps too corroded to identify or are parts of nails, including a hobnail (sf6166). However, there were two distinctive iron objects; a socketed mortice chisel (sf6064) and a cleaver with a socket for the handle (sf6186). The former was from an abandonment layer but the cleaver was embedded in the clay of the flat hearth next to the boulder hearth. It seems probable that these were tools used during activities carried out in the structure and around the hearths.

One of the stones used to backfill pit 81041 in structure 80526 was a fragment of a small rotary quern topstone, sf6173 (volume 3 Fig. VI.1.6), made from coarse sandstone. The stone was probably not from Anglesey and the quern was probably imported as a finished object. The rim of the quernstone is decorated with 'dogtooth' indentations. The base of the quern is flat, not inclined. Parts of several other querns were found in structure 80527. These were a fragment of a flat disc rotary quern top stone (sf6176), a fragment of a possible beehive quern top stone (sf6180), a slug-shaped rubbing stone from developed type of saddle quern (sf6065), and a rotary quern topstone (sf6054) from a beehive quern of coarse sandstone, possibly imported to Anglesey.

Set into the floor near the boulder hearth in structure 80527 was a deep mortar (sf6149) of breccia (volume 3

Fig VI.1.12). This is a sub-rectangular boulder with neatly pecked, well-worn, sub-rectangular bowl. There were several hammerstones from this structure, as well as burnishers, polishers and possible gaming pieces.

One of the more unexpected finds was a bifacially retouched flint knife (sf6148, Fig. V.1.9). This came from a clayey patch within a deposit (80847) that sealed many of the features in structure 80527; possibly a later floor or levelling layer. The knife is invasively flaked on a thin blade with the butt thinned probably for hafting. Use wear analysis showed it to have been used probably for cutting grasses or cereals, and it may have been part of a harvesting sickle. The lack of damage to the knife suggests that it was not just residual and it may have been found elsewhere and brought into the structure as a curiosity or even for use.

The pottery suggests that the main phase of activity can be dated to the late 3rd century and into the early 4th century, although this date relies heavily on structure 80527. Structure 80526 had few datable sherds, and few finds of any sort, although a small number of late 3rd century Black Burnished Ware sherds scattered around it do support this general date. The second century samian ware appears to be residual from earlier activity, possibly at a different location.

Twenty soil samples produced identifiable charcoal; sixteen were dominated by oak, one was dominated by willow/poplar, one was dominated by hazel, and two contained equal amounts of hazel and oak charcoal. Most samples from structure 80527 were entirely or predominately of oak charcoal but there was also a significant proportion of hazel charcoal present. Both oak and hazel were used as fuel in the boulder hearth, with hazel dominate in one sample. Only one sample from structure 80527 contained willow/poplar charcoal, and that was in a probable demolition layer (80807). It appears that wood species used for fuel in structure 80527 were limited (McKenna, volume 3, part XIX.3).

There were relatively few samples with identifiable charcoal from the groups of pits and postholes, but the two samples from Group A produced only oak charcoal. Samples from Groups B and C produced both oak and willow/poplar charcoal, with one sample from Group B also containing *rosaceae* (rose family) charcoal, but none of these features contained hazel charcoal (McKenna, volume 3, part XIX.3). This could support a chronological separation between structure 80527 and Group B, which produced some earlier dates (see below).

The radiocarbon dates from some of the group B pits and postholes do indicate second century activity within Area K9. Dates of cal AD 80–240 (SUERC-81360) and cal AD 80–240 (SUERC-83288) from pit 80562 and cal AD 10–130 (SUERC-81361) from pit 80556 could be consistent with 2nd century activity and certainly suggest that some of the features pre-dated the main 3rd/4th century activity. The pits underneath structure 80526 might have been associated with this phase, although the Iron Age date of 380–200 cal BC (SUERC-83289) from pit 80560 suggests that there could also be earlier activity in the area. A residual date of 360–190 cal BC (SUERC-85152) from corn dryer 80835, cut into deposits just outside structure 80526, is quite similar. These dates could hint at Iron Age activity, possibly including some of the features sealed under structure 80526. Most of the postholes in Area K9 have the appearance of a coherent layout, even if some structures were replaced and they fit well with structures 80526 and 80527, making it likely that most of the features were roughly contemporary. Although there was no dating evidence from the circular structure formed by posthole Group C, there is no reason to assume that this was not part of the main phase of activity. It is assumed that the earlier Roman period activity and possible Iron Age activity only accounted for a small number of features.

Interpretation

Structure 80526

The precise size and shape of structure 80526 is uncertain. The evidence of a probable corner at the north-east end of the surviving wall and the terrace cuts to the south-west strongly suggest that this wall represents the width of the structure, which would be approximately 5m. However, no direct evidence exists to suggest how long the structure was. A dense spread of postholes thought to be contemporary to the south-east, are approximately 6.5m away. When this and the thickness of the wall (approximately 1.0m) are taken into account, it seems entirely plausible that the structure was square in plan rather than rectangular. If this is the case and the building had internal dimensions of approximately 5m square, then it seems rather curious that such thick stone walls were required. There were at least three different floor layers but this suggests small scale repair work done to parts of the floor, rather than multiple phases of use.

If the building was square in plan then the irregular shaped pit 81041 would have been central within the structure. The significance and indeed purpose of this complicated pit is not fully understood, but it can be surmised that the pit was at least partially covered with capstones to the south, and possibly originally to the north as well. If capstones did exist to the north, as suggested by the upright support at the northern end of the pit, then the pit would have been completely covered over and access to it must have required the partial removal of some capstones. The *in situ* southern capstones were sealed under the building floor, so whether capstones existed to the north or not, access must have been from that end. This theory is supported by the insertion of the rubble from the northern end, leaving a void between the rubble and the capstones, a void that later silted up. Within the rubble there were two upright parallel schist stones and a group of tightly packed schist slabs set on end. It is possible that these were from a structure on the side of the pit, which had been toppled into the pit opening.

It is clear that the pit pre-dated the construction of the floor, but whether it was much earlier than the building or constructed at the same time, as an integral part of its function, is difficult to prove. However, the capstones were directly under the floor and would not have been concealed from the builders of structure 80526. If the feature had been earlier they would surely have just removed the capstones and infilled the pit. The filling sequence suggested that the pit had remained as a void under the floor of structure 80526 and was infilled on the abandonment of the structure. This, along with the central position of the pit in the building, argues for the contemporaneity of these features. The finds in the fill were probably introduced during the abandonment of the building but could have originated from the occupation deposits resulting from its use.

The original function of the stone-capped pit may therefore have been for storage under the floor of the building, although other functions for this chamber are possible.

Structure 80527

It seems probable that structure 80527 and structure 80526 were contemporary and related. Structure 80527 produced much more datable artefactual evidence, however enough ceramic was found within secure contexts within structure 80526 to confirm a 3rd to 4th century AD date. Moreover, the two structures were spatially linked by a mass of activity between them, which is discussed below.

The structure 80527 probably had clay or clay and stone walls, although very little of the walls remained. A clay wall would explain the absence of structural posts, except for the porch. The large amount of stone spread across the structure from its demolition phase suggests that stone may have been incorporated into the clay walls.

The structure itself appears to have been built to serve a very particular industrial process, incorporating the boulder hearth, stone mortar, firebox structure, other hearths, stone trough, and drains. The boulder was particularly large and well-made, utilising glacial granite erratics for a sub-structure. These were badly heat fractured, possibly suggesting repeated heating rather than high temperatures, as the clay lining was not highly fired. The absence of metalworking waste, despite careful searching of the wet sieving residue and checking unsieved, dried soil for magnetic material, suggests that this was not a furnace or smithing hearth but was clearly required to be of substantial construction. Tim Young (pers. comm.) has suggested that the massive boulder construction was intended to support a heavy vessel possibly for boiling materials to create dyes. The stone-lined trough and other features could be associated with different stages necessary in processing dye stuffs. The steep sides and flat base of the stone mortar/bowl suggest use as a bowl rather than a mortar, which might be expected to have sides curving into a rounded base, making even grinding easier. The bowl must have taken a considerable time to carefully peck when other containers would be much easier to produce. Some qualities of the hardness or resilience of stone must therefore have been important to its function.

The door seems to have been on the western side of the structure and the drains immediately outside the door would have been useful to empty waste liquid into. The position of the door suggests that a good draught to the hearth was not important, in fact, the boulder hearth possibly opened away from the door specifically to ensure that air flow was not too vigorous and that temperatures could be more easily controlled.

The stratigraphy suggests that the firebox structure (cut 81137) was related to the main activity in the building. The feature was essentially a stone-lined hearth with an open side to the west. The spread of burnt clay deposits radiating away from the structure strongly suggests that it had a temporary clay superstructure probably repeatedly destroyed during use. However, the position of this feature was awkward squashed between the boulder hearth and the proposed wall with its opening facing the wall. Deposits built up around this structure were initially considered

to be traces of the building wall but this would make a very odd-shaped building. However, it is perhaps possible that the firebox was partially built into the wall and was accessed through it. The presence of charred grain within this feature suggests that it might have been a type of grain dryer.

The location of the stone-lined trough a short distance to the north of the hearth suite suggests that it was used for a related but separate process, almost certainly in conjunction with the pits around it. The careful sealing of the joints between the stones of the trough with clay strongly suggests that it was used to contain a fluid. The arrangement of pits and gullies around the trough is clearly indicative that it was a busy area and used regularly for a specific purpose, supported by the fact that as some pits went out of use others were dug.

This structure was used for one or more industrial processes but exactly what there were is not clear. Some metal objects were found, particularly the iron cleaver, but no evidence that these were made on the site. Burnt bone fragments were recovered from many deposits but these appear to be domestic waste and do not indicate the use of the structure. There are hints of glass working in the area but no obvious evidence of it in the structure.

In its later phase structure 80526 seems to have changed its use. Presumably, the activity on the site produced the black silt-clay deposit that covered the interior and in many cases filled features. When all internal features had gone out of use, the black deposit was sealed under a coarse stone floor. The walls were apparently still standing at this time and the floor may indicate reuse perhaps for storage.

Posthole structures

The eastern group of features (group C) may represent the remains of a circular timber structure housing troughs for similar activities as carried out in structure 80527. It is possible that these similar activity areas were sequential rather than contemporary. Perhaps the samian Ware from this part of the site was related to earlier activity in group C, that when the nature of the activity expanded was then moved into structure 80527 in the 3rd or 4th century. However, with few finds from group C this sequence cannot be proved.

Many of the postholes in group B were probably post pairs, but in the eastern part of this group two parallel lines with three postholes each (80630, 80632, 80581, and 80952, 80968, 81142) seemed to define a 6 post structure measuring about 3.9m square externally. Across the middle at the east end of this were two more postholes (80626, 80618). All the postholes were of a similar size and depth and this structure resembles in form and size the possible granaries described in the main roundhouse settlement. Posthole 80972 might also be associated with this structure but it was off the line of the western side of the structure.

A similar structure can be seen in group A with postholes 80725, 80698, 80587 forming the northern side, 81190, 81154, and 81116 the southern side with 80731 and 80692 in the middle. This interpretation requires feature 81154, which entirely lacked packing stones to be accepted as a posthole and excludes other postholes along the same alignments but does make a square structure measuring just over 4.0m on each side externally. Feature 81154 also causes problems with the stratigraphy of this area as it seemed to clearly predate the infilling of the linear hollow (81158), which other postholes included in this structure seemed to post-date. These issues and the function of the many other postholes in this group need to be resolved before this area can be understood. However, it seems probable that most of the features in groups A and B represented posts of storage structures, several possibly built sequentially but on the same alignment. The fire pits suggest some processing of the stored material taking place next to the structures. It might be most likely that grain or other food stuffs would be stored in these structures, but, if the boulder hearth in structure 80527 can be interpreted as a drying hearth, then dye materials might have been dried and stored.

Although few of the postholes are directly intercutting any probable structures that can be proposed overlap with other structures, so there must have been several phases of construction. Radiocarbon dates were only obtained from features on the western end of group B due to a scarcity of datable material in other features. Dates of cal AD 80–240 (SUERC-81360) and cal AD 80–240 (SUERC-83288) from pit 80562 and cal AD 10–130 (SUERC-81361) from pit 80556 indicate 1st or 2nd century activity. This is earlier than structure 80527, dated by 3rd/4th century Black Burnished Ware, but these features were on the outer limits of the activity area and possibly few other features were contemporary. An Iron Age date of 380–200 cal BC (SUERC-83289) from pit 80560 is also a warning that there may have been activity at other periods here.

Trackway and possible field system (PRN 31597)

(Location: from SH 25658 80762 to SH 25921 80704)

See figures 90-92, 98-101

Running through the building complex in K9, described above, was a terrace about 1.25m wide running east-west between structure 80527 and feature group A (figure 91, plate 173). It was defined by parallel, gentle, north facing scarps (81208 and 81279) (figure 96.5). There were traces of a stone wall (81209) running parallel at the foot of the northern scarp. The southern scarp faded out to the west but the northern one continued as 80554, curving round to head north-west it defined the southern limits of feature group B. It is suggested that this was a trackway through the building complex.



Plate 173. Linear terrace defined by scarps 81208 and 81279

A shallow pit, or possibly an erosion scar cuts the northern side of the track, and this was in turn cut by the scarp or ditch (81148/81158), through the fill of which some of the features to the north of the track are cut. This indicates that the trackway was probably present before most of the activity in this area. It is probable that the scarp 81158 indicated the end of a field boundary and was caused by ploughing cutting into the slight slope. If so ploughing cannot have continued for long as the stone and timber structures were built over the area. It is possible that structure 80527 was in use when the trackway was first constructed but the complex of structures in this area is likely to be all contemporary, so structure 80527 probably also post-dated the track. However, the track probably continued in use during the use of the structures. It was not blocked or cut through during the life of the structures and the drain 80881 emptied onto it with no trace of it continuing further. The track went out of use when the structures were abandoned as the tumbled stones from structure 80527 extended over the track.

Immediately to the east of the buildings it faded out, but 13m further east on the same alignment as the southern scarp of the trackway was a rough line of boulders (80476) (figure 92, section figure 96.6). This ran straight west to east for about 12m then curved more to the north-east. Where the boulder line turned there was a gap and it seems likely that there were originally two parallel lines about 1.5m apart, probably a continuation of the track through the building complex. Some of the boulders in 80476 had been deliberately laid flat but the impression was more of stony banks than firm wall foundations. The stones rested on colluvium, which had built up against a gentle, north-facing scarp in the natural ground slope. The scarp may have been the result of ploughing, and as colluvium continued to build up over and around the stones, it seems likely that they were dumped along the boundary of a ploughed field to form a bank or revetment to the field. The scarps running through the building complex may also have originated as field boundaries before the buildings were constructed.

Feature 80476 continued north-west into the baulk and was obscured under an area not yet investigated. In the eastern edge of Area K9, just north of the proposed line of feature 80476 and running north at approximate right angles to it was a shallow and rather irregular channel (80635) that might have been largely natural. Cut into this was one of a group of four postholes (figure 90). This group of postholes (80505, 80508, 80511, and 80514) had

packing stones and were quite well-defined but no other features were associated with them (figures 90.2 and 3). They failed to form a functional four-post layout and there were no finds so their date is unknown, but they could have been related to the proposed trackway and the nearby building complex.

Just to the east the continuation of feature 80476 could be seen in Area J (figures 98 and 99). A broad terrace (70527), about 5m wide, ran west to east. The southern edge of the terrace was defined by a scarp about 0.4m deep and along the top edge of this was an earth bank (70526) up to 0.25m high (plate 174). Erosion from this bank seems to have occurred as soon as the terrace was dug, creating a deposit (70695), against the terrace edge (figure 100.1). On top of this and on the edge of the bank was a kerb of stones, or the base of a stone revetment to the bank. For one section, about 2.6m in length, this kerb was well-preserved and seen as a neat line of stones up to 0.5m long (70525). To the east of this section the kerb was not visible and to the west it was more disturbed. A few stones (70587) marked the line of the kerb with more very scattered stones further west, but most of the stones that had formed the kerb at 70587 had slipped into the terrace cut and were recorded as tumble 70588. In one sondage a shallow ditch (70858) was identified behind the bank, but this was not followed.



Plate 174. Southern edge of road terrace (70527) with earth bank (70526) in section and kerb (70525) in background

Traces of metalling (70520) survived in the base of the terrace cut. This was composed of densely packed small stones and the deposit was up to 0.2m deep. The metalling extended along the base of the southern scarp and was up to about 2m wide. This suggests a formal metalled trackway at this southern side of the terrace.

The eastern part of the southern side of the terrace, where it was investigated was backfilled with many more stones (70414). These were up to 0.5m long and could suggest that there was a revetment of considerable height along the face of the bank. The bank continued further east as a rough wall or bank (70306) for a total of 45m (figure 98, plate 175). The line seems to have been continued further east not by a bank but by a disturbed and discontinuous gully (70152), probably the truncated remains of the base of the terrace scarp.



Plate 175. Rough wall or bank 70306



Plate 176. Section of ditch 70622 beside trackway



Plate 177. Probably Roman period stone faced bank 70006



Plate 178. Bank 70441/70442 and ditch 70444 marking eastern end of trackway

The northern side of the terrace was deep ditch (70622), about 0.7m deep from the surface of the terrace (figure 100.1). This was about 1.3m wide and filled with grey-brown silts containing significant amounts of stone (plate 176). The ditch continued east and was seen in section as ditch 70009 (figure 100.2). Cutting the fill of ditch 706232 was a shallower ditch (70517) only about 0.2m deep. This was also seen in section further east (figure 100.2) though it was difficult to identify where it cut through the fill of the deeper ditch, and the area was further confused by a land drain (70008) cutting through it which had a fill identical to the ditches. Ditch 70517 was filled with a brownish grey silty clay (70542) with few stones. Over this was what appeared to be a stone-faced bank (70543/70658). Immediately north of the bank was an area of cobbling (70516). Running in from the north was a ditch (70007) which ended before reaching ditch 70517, possibly leaving a gap for an entrance. Ditch 70007 had a stone bank or wall (70006/70014) on its eastern side (plate 177). This bank had large stones on its western side forming a revetment for the bank.

These ditches were seen in plan for a total of 24m, but they became unclear beyond that and were not followed further in detail. To the east the northern side of the track was indicated by slight traces of the continuation of the ditch (70736) (figure 98). Much further south was a short section of surviving stone bank (70339) on a nearly north-south aligned scarp (figure 98). The character of the bank and the alignment suggests that this may also have been a fragment of the same field system.

In the eastern half of Area J this ditch reappeared again as a much better preserved feature where it was protected from plough damage by build-up of colluvium on the slope. Here it was recorded as 70231/70238 and it started to curve round towards the south-east. Where it was best preserved and recorded as 70444 it was 1.8m wide and 0.47m deep (figure 101). The ditch was accompanied on the northern side by a wall or bank (70442/70441). The stones (70442) up to 0.4m in length, formed a loose line with little structure, and these lay on or within the remains of an earthen bank (70441) (figure 101.2) (plate 178). The bank seems to have formed the northern side of the ditch, which was in fact more of a terrace cut.

The southern side of the trackway was bounded by a short section of a similar bank (70537) with some walling stone on top (70539), which ran parallel to wall 70442 (figure 101.3). Next to this bank segment was an area of metalling (70540) similar to that found at the western end of the trackway, though it extended under the bank and must have been created first. This suggests that a surfaced track once continued through to this point but that it had only survived as a double-walled feature in protected locations.

A posthole (70692) was found on the line of bank 70537/70539. This was about 0.6m in diameter and 0.33m deep. There was nothing to link this to the trackway and other possible postholes widely scattered over the area were more likely to be post-medieval than Roman period in date.

A short section of wall (70544) ran from the north-western end of bank 70442/70441, approximately at right angles, and this may have been a field wall related to the trackway (figure 101). Other ditches also may be related. Ditch 70382/70388 ran down the slope at a different angle to wall 70544, and appeared to pre-date the wall. Ditch 70392 was shown to be earlier than bank 70441/70442 but seemed to respect its alignment. There may therefore have been more than one phase of field layout roughly related to the line followed by the track. Two ditches (70193/70216 and 70246) in the middle of Area J probably belonged to the same system. A scatter of loose large stones was recorded to the west of ditch 70246. Some were embedded in the natural silt but others were within the ploughsoil. Similar large stones were not seen elsewhere in Area J or on the rest of the site so it is possible that they were not natural but spread by ploughing from a demolished wall or bank adjacent to 70246.

There were very few finds from these features but two sherds of Roman Black Burnished Ware were recovered from wall 70539 and a decorated samian sherd was found over ditch 70444 at the eastern end of the trackway. A sherd of eroded samian Ware was found within the stone bank 80476 towards the western limit of this feature. A sherd of prehistoric pot and a flint flake were recovered from the ground surface sealed below the stone bank 70339, although these were more likely to be related to the nearby pit group than to the field system.

Interpretation

The features described above seem to represent trackway, at least partially metalled, and defined by banks and ditches. It ran across Area J to the building complex in Area K9, continued through the complex, and possibly out along the route of Lôn Trefignath. This trackway was possibly constructed along existing field boundaries and continued to be part of a wider field system, as represented by ditches running roughly perpendicularly from the route of the track.

The small number of Roman pot sherds were found along the line of the trackway supports a Roman date, as relatively few pieces of Roman pot have been found across the site outside Area K9. However, the best dating evidence for the trackway was its alignment with the Roman period building complex in Area K9, and the evidence of its use with those buildings.

The walls bounding the trackway and forming related field boundaries seem to have been a type of clawdd boundary (earth bank faced with stone) rather than drystone walls, as all seemed to consist of earthen banks with some disturbed stone and occasional *in situ* slabs or revetment.

Evaluation trenching to the east of Parc Cybi, in a field known as Cae Glas, provided an opportunity to test the continuation of the trackway (Kenney 2012b and Wessex Archaeology 2015). The lack of evidence in most of the trenches suggests that the track may have turned towards the south-east rather than run straight across the field. The presence of a small area of metallised surface in the western end of trench 23 seemed to support this though there was a farmstead in this area and it was not certain that the metalling belonged to the track.

If the track continued to follow a south-easterly direction in about 1km it would reach a small inlet of the Inland Sea (Y Lasinwen) next to Mill Island, which would have provided a good sheltered harbour. In the 18th century Lôn Trefignath did not go to Trearddur Bay but joined a track that led to the Mill Island inlet (figure 102). The track ran around Cae Glas and then headed north-east but in 1769 a straight line of boundaries ran from the Trefignath farmstead to this track (see figure 121), possibly indicating that a track once ran along these boundaries. It seems possible that part at least of this track to Mill Island followed or was near the route of the Roman period trackway.

Long cist cemetery (PRN 31600)

See figure 103 for plan and 104 for sections

A cemetery containing twenty two graves, and one probable grave, was identified on top of a small rounded hill in Area K7 (SH 25645 80835). Most of these were long cist graves of the type usually said to date from the 6th century AD until possible the 13th century. However, as will be discussed below, there is evidence that this cemetery actually dated to the late Roman period.

The graves were laid out in quite a regular arrangement along a roughly east-west axis (plate 179). There was a group of eight closely packed graves in two rows in the centre with longer, more widely spaced rows to the north and south with some infilling following the alignment of existing rows. The roughly symmetrical layout suggests an organised and coherent cemetery in which the location and extent of earlier burials were still visible when later graves were dug. Very few of the graves cuts appeared to overlap, with some merging of cuts probably occurring due to post-depositional effects. The only stratigraphic relationships came from the north-western side of the cemetery where the cut of Grave G (80052) appeared to clip the eastern edge of Grave I (80068), cutting through its packing fill (80146). It is likely that Grave G is also later than Grave L (80070) to the west; the former appears to truncate the eastern end of the latter in plan.

It was originally considered that there were 23 graves in the cemetery but that included cut 80066, originally referred to as Grave H. This feature was interpreted as a grave that had probably been largely destroyed by the machine stripping. Its identification as a grave was based on a stone set on edge near its south-eastern side. However, the stone on edge did not project much above the natural gravel surface in which it appeared to be embedded and could not have been a side slab. This feature was orientated south-west to north-east, quite a different alignment to the other graves but it was aligned exactly parallel to the slope contours. This very shallow and poorly defined feature is now interpreted as erosion of the natural gravels on the slope, possibly by ploughing, as there is not enough evidence to show that it was a grave. There was a flat slab at the north-east end but that could have been disturbed from a neighbouring grave.

There was also another grave-like feature (cut 80063), which was on the same orientation as the graves, and in fact may have originated as a grave making 23 in total. This feature is described and discussed below under metal-working within the cemetery.

Grave Cuts

The graves were sub-rectangular in plan and aligned approximately around an east-west axis. Twelve graves (graves A, B, D, F, J, M, P, Q, R, S, U and W) were orientated almost exactly east-west and nine graves (C, G, I,



Plate 179. Long cist cemetery (PRN 31600) in Area K7

K, L, O, T, V, and X) were aligned west-south-west to east-north-east. One, grave N, was aligned east-south-east to west-north-west.

The size of the grave cuts varied. The three smallest graves (W, N and R) were located on the eastern side of the cemetery, in a column just to the east of the central cluster. Grave N (cut 80081) was the smallest of the graves at just 0.88m long and 0.60m wide. Another grave just to the north of this, grave W, cut (80101) was also measured at just under a metre long and was 0.50m wide. Presumably, both graves were cut to hold infant burials. Grave R (cut 80088) was the most southerly of the three and measured 1.55m long by 0.63m wide. The size of the rest of the graves fell within the range of 1.68m long and 0.72m wide, the dimensions recorded for grave K (cut 80078) in the north of the cemetery, and up to 2.30m long and 1.44m wide, as recorded for the cut of grave G (80052) in the north-east corner.

Some of the graves in the central group were recorded as having one large cut for two or more graves, e.g. graves F and J, and graves Q, S and U. However, in both cases the proposed larger cut was not a neat regular shape and remnants of individual grave cuts survived. It is most likely that all these graves had individual cuts but they were so close together that bioturbation and weathering along the cut edges caused the cuts apparently to merge. Graves F and J were initially thought to be surrounded on three sides by an arc of firmly set angular cobbles (80060), but on excavation, the stones were shown to be natural weathered schist fragments embedded in the subsoil.

The graves had near vertical sides and flat bases, though their depth varied across the site. Fifteen of the graves were between 0.20 and 0.30m deep. Four fell outside the bottom end of this range: Grave U (80097) was 0.18m deep; grave M (80080) 0.14m; Grave P (80061) was 0.13m deep whilst grave W (80101), the shallowest on the site, was just 0.10m. Grave M, in the south part of the cemetery, was cut against the northern edge of a schist outcrop, which protruded through the sand and gravels on the top of the hill. The resulting exposed surface of this outcrop formed the base of the grave and determined its depth. At the other end of the scale, four of the graves measured over 0.30m deep: Grave S (80086) was 0.34m; Grave V (80100), 0.35m; Grave C (80046), 0.40m and the deepest, and longest, grave cut on the site, that of Grave G, was 0.50m deep.

In some cases, as in Grave A (80036) in the south-west corner of the cemetery, the cut had been dug just large enough to accommodate the stone structure inside and the cist stones (80037) were packed in tight against the edges of the cut. The removal of the stone cist structures demonstrated that the cuts of some were larger than had been initially suspected. In some cases, as in graves G (80052) and L (80070) in the north-east corner of the cemetery, the cut appears to be significantly larger than the cist.

The original graves must have been significantly deeper and it seems likely that considerable soil loss has occurred since the graves were dug. Both graves P and W discussed above appeared to be disturbed and truncated. They, like the majority of the cists, were revealed only just below the level of the modern topsoil and would have been susceptible to plough disturbance. The quantity of colluvial material identified at the base of the hill also suggests substantial soil movement due to ploughing.



Plate 180. Graves G, I, K and L with stone cists of varying completeness

Grave linings

Figure 103

All the graves appear to have been lined, and there seem to have been two types of grave lining; a stone-lined grave (usually referred to as a long-cist) and what is interpreted as a timber-lined grave (plates 180 and 181). The long cists were most common and all were constructed to the same general pattern. They were built from generally large, thin flat slabs of locally available blue-grey schist some of which appeared to have been roughly shaped for the purpose. These stones were set on their edges, usually vertically, to form the side and end slabs of an approximately rectangular cist box. Some of the cists were described as 'coffin-shaped' (Graves N (80082) and B (80042)), a slightly more trapezoidal design, wider at the west and tapering towards the east. Most of the cists also contained a basal layer of large horizontally set slabs, which formed the floor of the grave. Smaller pieces of schist had often been used to fill any gaps between the larger stones in the base and sides.

A good example of this type of cist was grave G, located in the extreme north-eastern corner of the cemetery. The grave cut (80052) was an irregular sub-rectangular shape, 2.30m long, 1.44m wide, 0.50m deep and aligned west-south-west to east-north-east. A rectangular stone cist (80053/80633/80634), 1.8m long, 0.47m wide at its base, and 0.29m deep had been constructed towards the south and east edges of the grave cut. Eight flat schist stones (80634) had been set on edge to form the sides of the cist. The largest of these measured 0.72m long, 0.35m wide and 0.03m thick. With the exception of a single example in the south-east corner, all of side slabs appeared to lean inwards slightly towards the centre of the grave. They also appeared to abut, and therefore probably postdate, the placing of the two end slabs (80633). The end slabs were constructed from similar pieces of flat schist; the stone at the west end measured 0.48m long, 0.34m wide and 0.04m thick, whilst that at the east was 0.44m long, 0.31m wide and 0.07m thick. The base of the cist (80053) comprised at least twelve flat slabs of horizontally laid schist. These base slabs measured up to 0.60m long, 0.30m wide and 0.04m thick. Smaller stones had been laid to fill the gaps between the larger and create a continuous rectangular paved area. In this cist, some of the base stones were seen to underlie, and therefore predate, the side slabs though no stratigraphic relationship could be established between the base and the ends.

The quality of the stone cists varied across the cemetery. Some, as with that in Grave G above, were very well-constructed displaying evidence for tightly fitted and continuous side, end and base slabs. Other similar high quality examples included the cists in Graves C (80047), J (80051) and F (80049). The better quality cists do not appear to have been confined to the larger graves, one of the two smallest cists in the cemetery (80082), in the probable infant's grave, Grave N, was well-preserved. Most of the missing elements were the result of later disturbance. For example, the western end of Grave L, in the north-eastern part of the cemetery, was cut into by a small pit (80072), possibly part of a stone robbing event resulting in the truncation of the western end of the cist. Other damage may have been caused by ploughing or machine stripping. Some graves had odd side slabs missing with no obvious disturbance visible.



Plate 181. Grave X with packing stones indicating a wooden cist



Plate 182. Graves in southern part of the cemetery where bedrock outcropped and was used for the base of some cists

Just over half, of the cists contained evidence for basal slabs. Most of these contained a near intact continuous paved surface across the bottom of the cist, but grave U had only a single slab at the east end of the grave. Of the eight that did not contain basal slabs, the bottom of 5 (Graves M, O, Q, T and V) was formed by the relatively smooth and flat (though not always horizontal) surface of the exposed bedrock (plate 182). Graves A and W had unlined bases cut into gravel. In some cases, e.g. graves F and J, an uneven base was levelled before the base slabs were laid.

There was no evidence for large lintel-type capstones on any of the cists. At least six of the graves did however show evidence for partial capping deposits. In Grave T (cut 80092), at the centre of the southern row of graves, four flat stones (80671), the largest of which was 0.4m long, had been set horizontally on, and aligned parallel with, the cist side slabs (80093). They appeared to form a separate stone course above the sides of the cist. None of

them was large enough to span the width of the cist and no similar slabs were recorded collapsed into the grave, so they do not appear to have entirely sealed the grave. Similarly in Grave A (cut 80036) in the south-western corner, three flat schist slabs represented a partial stone covering deposit, resting on the top of the cist side stones. Slabs were also recorded on top of the fills of Graves G, I and N; in these cases lying directly on the grave fill and not supported by side slabs. It appears that in all these cases the long cist was backfilled with soil and then small slabs were laid on top as a sealing deposit rather than true capstones.



This was particularly clearly seen in Grave C (cut 80046) on the north-western side of the cemetery, where six flat schist pieces (80673) had been placed upon the top of the cist (80047), with their outside edges resting on the side slabs (plate 183). These stones did not span the width of the cist, and all appeared to slope downwards towards the centre of the cist, as if they had originally been supported but the support had decayed. This was a well-made stone cist and the body would have occupied

Plate 183. Slabs 80673 slumping into Grave C

most of the space in the cist. The body was presumably covered with backfill (80008) and the slabs laid on top but as the body decayed a void would have been created causing the covering slabs to slump inwards.

It is possible that more of the graves originally had covering stones, as these could easily have been disturbed by ploughing, and some were probably disturbed during machine stripping. A number of smaller slabs recorded near some graves were probably remains of disturbed covering slabs.

In some of the cists their constructional sequence could be identified. Sometimes it was possible to identify whether the end slabs had been placed before the sides, as in Grave T. Where there were basal slabs these often appear to have been inserted after the sides, e.g. in Graves C, D, I and K, but in others (e.g. Graves R and G) the base stones were placed first followed by the side and end slabs. No overall pattern emerged and it appears that the constructional sequence was largely a matter of choice on behalf of the cist builders.

As the cists were constructed the slabs were supported by a packing deposit between the side slabs and the cut. This generally consisted of a deposit of gravely silt that probably originated from upcast from digging the grave.

Possible timber-lined graves

At least two of the graves (Q and X), both within the central group, appear not to have contained a stone cist structure at all. These had a number of sub-rounded and sub-angular cobbles placed against the grave sides. Their smaller size and more rounded form showed that they were not part of a damaged cist, but were probably packing stones, probably to support a timber lining. These graves are not sufficiently well-preserved to prove this interpretation but other graves elsewhere (e.g. St Andrews (Proudfoot 1996)) give more indication that this interpretation is correct. In particular, a grave on the nearby site adjacent to Tŷ Mawr Farm (Longley 2009, 111; Kenney and Longley 2012, 117) contained the stain of a timber structure supported by packing stones. The structure appeared to be composed of unjointed planks forming essentially a timber version of the stone cists. Other graves on the same site also had less well-preserved traces of timber linings. In Graves S and U, also in the central group, stone base slabs had been used but only small packing stones were present around the sides, suggesting timber lining with stone bases. Other graves, particularly Graves O (80083) and M (80080), largely lacked lining stones but, as both had single surviving side slabs, it is assumed that they had been disturbed and most of the cist slabs lost, rather than being odd combinations of timber and stone.

Many Welsh cist graves have partial cists, lacking basal or side slabs, though the lack of lintels is likely to be due to damage, rather than being an original feature as these are the first stones to be lost (Longley 2009, 110). However, timber lintels are not impossible. A soil stain in a grave at the cemetery at Llanbeblig, Caernarfon suggested a timber cover slumping into the grave (Kenney and Parry 2013a, 12-13; Kenney and Parry 2013b, 263).

The timber-lined graves now look less impressive than the stone cists but as Hedges (2016, 151) points out trees large enough to produce suitable planks would have been rare in Anglesey, unlike stone slabs, and timber-lined graves may have been of a higher status than stone.

Cist size

The dimensions of the cist structures varied. Predictably, the two smallest cists were found within the smallest grave cuts. What initially appears to be the smallest cist, (80080) in Grave W, was only 0.48m long, but this was damaged and must originally have been about 0.90m long. The smallest cist was therefore (80082) in grave N, which was 0.73m long, 0.28m wide and 0.14 deep. It seems that both Graves N and W held infant burials and their position together on the eastern side of the cemetery might be of significance.

Of the complete cists there were two intermediate between the infant cists and the majority in the cemetery, and may possibly have been the graves of children. Grave R contained a relatively well-preserved cist structure (80089) measuring 1.16m by 0.33m, which might be taken as a rough indicator of the height of the deceased. In grave K, the cist (80030) was also relatively well-preserved and measured 1.40m by 0.46m, again suggesting a smaller individual. Both these smaller graves accompanied larger, presumably adult graves, and were both located on the eastern side of the cemetery next to a larger grave, adding to the symmetrical character of the cemetery.

The other stone cists all fall within a relatively tightly clustered size range from 1.70m, as recorded in Grave J (80051), to 1.9m recorded at Grave I (80067) and possibly longer for Grave P (80062) where the cist was damaged. It is assumed that these larger cist graves represent adolescent or adult members of the community. The possible timber-lined graves also seem to fit within this size range.

Based on the sizes of the cists, the cemetery appeared to contain two infants, two children, and nineteen adults or adolescents. All of the children's and infants graves lie in the eastern half of the cemetery, suggesting that this was deemed an appropriate place for the younger members of the community to be buried. The two children's graves, K and R, each lie adjacent to the larger, presumably adult, Graves V and G respectively. Each is located on the inside, cemetery side, of the larger grave. In both cases the cuts of the pairs of graves appeared to be touching each other, but despite the physical relationships, it proved impossible to decipher any stratigraphic relationship between them. This situation is repeated in the northern part of the cemetery with the larger Grave I and the smaller, apparently truncated Grave L. On this basis, it is possible that Grave L is the remains of a further child burial, despite the possibility of a relatively large cist structure indicated by the size of the grave cut.

Orientation

The orientation of the cists tended to be the same as that of their grave cuts. There were however two examples where the cist was orientated slightly differently: Grave R (80678/80089), just to the north of the central cluster of graves, and Grave B (80042) in the south-eastern corner. Both appear to have been constructed on an east-north-east to west-south-west alignment in oversized east-west orientated grave cuts. If the orientations of graves X (80091) and Q (80094) are included, both of which lacked strong evidence for a stone long cist, the burials in the cemetery appear to have been orientated as follows: ten were orientated E-W; eleven were aligned west-south-west to east-north-east, and one east-south-east to west-north-west. With one or two exceptions, the graves in the central cluster of burials seem to show a preference towards a general E-W orientation, whilst those on the 'wings' to the north and south tended more towards an east-north-east to west-south-westerly alignment.

Human Remains

Six of the graves contained recoverable human remains, and one had irrecoverable traces. Grave A in the south-western corner of the site contained the best preserved example (sf2036), but even here the state of preservation was relatively poor and the surviving bone fragments were extremely fragile (plate 184). The remains included fragments of skull, mandible, teeth, legs, arm and spine.



This individual appears to have been a male aged about 16 to 19 years old, who experienced at least three episodes of illness or malnutrition during his childhood as indicated by hypoplasia in his tooth enamel (Wysocki, current volume part XIV).

Grave B, in the north-western corner of the central grave cluster, also contained fragmentary parts of another human skeleton (sf818), including skull fragments, a single tooth and pieces of the left leg, of an individual aged between about 16-24 years. In Grave D some pieces (sf2037) of the lower left leg, parts of the right side of the pelvis and other unidentified skeletal fragments were recovered from an individual who was probably a woman of over 30 years in age. A small fragment of human skull (sf822) was also recovered from the western end

Plate 184. Human remains in Grave A, the best preserved remains in the cemetery

of Grave G, indicating the burial was probably of an adult male.

A few crumbling fragments of bones from a right leg (sf2043) along with some human teeth (sf4437) were recovered from Grave F and a single human tooth (sf4431) in Grave J. In both cases the teeth indicated burials of immature individuals aged about 5-7 years.

In Grave C, a number of small, soft fragments of bone were identified within fill (80008) during excavation. Due to their size they were collected as part of a bulk soil sample, but the fragments proved to be too fragile to survive the wet sieving process. Small quantities of burnt bone were recovered from wet sieving in three of the graves, F, K and N (sf4352, sf4545 and sf4438). The burnt bone is likely to be residual, and was almost certainly introduced with the mixed backfill deposit. Although unidentifiable it is more likely to be animal bone from domestic waste than cremated human bone.

The distribution of the surviving remains in Grave A suggest that grave had not been subject to significant disturbance, and that the cist had originally contained a single extended inhumation, laid out with its head at the western end of the grave. The left arm was found near the left side of the head, suggesting some post-depositional disturbance. The remains in Graves B, D and G were also found in the correct positions for extended inhumation burials, with the head to the west. Although there were insufficient remains to study in detail the demography of the cemetery they do indicate that care must be taken when using the cist size to suggest the age and gender of the burials. One of the largest graves, Grave G, did contain an adult male but the cists in Grave D, which probably contained a female, and Graves F and J, which contained children, were off about the same size. The burial in Grave A was of a teenager and this cist was of a medium size, as befitting a possibly smaller individual. The very smallest graves, however, could only be for infants. The evidence does show that males and females of all ages were buried in the cemetery, supporting the interpretation of a small family cemetery.

Finds from the graves

Artefacts are very rare in long cist graves as grave goods and clothing other than shrouds were not normally part of the burial tradition. However, some finds were recovered from the graves. Chert and flint flakes, mostly small fragments came from Grave O (sf5783), Grave S (sf4445, sf5859), and Grave W (sf4417). These must have been residual, originating from the ground surface, and introduced by backfilling. However a collection of 32 fragments of white quartz (sf2039), weighing a total of 278g but no more than 42mm in diameter, could have been deliberately included during the backfilling of Grave F. The majority were recovered from the area of the thighs, though a few were near the head.

Grave F contained a screw and washer (sf2040) and small sherds of post-medieval pottery (sf4016) that were clearly intrusive, but Grave I contained a small tanged, iron knife with organic remains of a handle (sf3006) and a copper alloy sheet fragment, with three rectangular holes (sf3005). Grave I was missing a side slab so disturbance could have introduced these items, although it possible that they were originally placed in the grave.

A collection of materials indicative of smithing came from Grave K. These include vitrified hearth lining (sf809, sf811, sf4101) and slag including a part of a smithing hearth cake, spheroids, hammerscale and lining slag (sf808, 810, 4353, 4358, 5602, 5603, 5910, 5983, 6350). Small fragments of iron-rich slag and spheroidal and flake hammerscale were recovered from Grave B (sf5695), Grave G (sf5597), Grave J (sf5760), Grave Q (sf5826), Grave R (sf5824), and Grave X (sf5825). A small piece of clinker (sf4544) came from Grave O. This material must be related to metalworking activity within or close to the cemetery as described below.

Metalworking within and near the cemetery

The cemetery was laid out in a fairly symmetrical plan and according to this, there should have been 4 graves in the southern row. There were certainly 4 features of the same size and shape as graves but the feature between Graves A and T had no cist and a large quantity of metalworking debris within its fill. This cut (80063) was grave-shaped, aligned west-south-west to east-north-east, and measured 2.01m long, between 0.70 and 0.80m wide and up to 0.26m deep. It had steep, almost vertical sides and a slightly uneven base. There was a base slab at the western end, suggesting the remains of a long cist, so this feature almost certainly was a grave. The cut was divided internally by a large flat piece of schist (80045) which ran slightly obliquely across its width towards the east end. Another large flat slab, also recorded as part of (80045), was set on its side at 90° to the first. These defined a separate compartment (80044) at the eastern end of the cut, measuring 0.65m by 0.45m. The larger western compartment measured about 1.4m long and had a primary fill (80064) of very dark, blackish brown silty sand with charcoal, covered by a less charcoal-rich but still dark deposit (80065). The eastern compartment

(80044) contained a single fill of a charcoal-rich, friable, blackish brown sandy silt (80013) (figure 104.3) (plates 185 and 186).

No finds were associated with the primary fill of the western compartment (80064), but the secondary fill (80065) contained metalworking debris, including hearth floor deposits and flake and spheroidal hammer scale (sf4434, sf4473, sf5593 and sf5957). More material was identified within deposit (80013) at the east end of the cut. Slag from this part included hearth slag, quantities of smithing floor concretion and hammer scale (sf2041, 4472, 4514, 4516, 5548, 5596, 5598, 5599, 5600, 5787). Amongst this material were some copper alloy fragments from sf 4472, 4514, 5548 and 5600 including 3 pieces of folded thin copper alloy strip and a fragment of a bifurcated copper alloy rivet. There were other larger metal objects including a concretion of metal fragments with fragments of iron sheet (sf2042) and a possible nail (sf2035). Copper alloy objects included a plain strip, bent round to form a small loop (sf4471) and a folded fragment of a sheet of copper alloy (sf6345) with a small blob of iron corrosion on one side. It is unclear whether this corrosion is simply attached to the surface of the sheet or is a small pin/ rivet that passed through the sheet.

No evidence for burning was recorded in the cut, and it appears that the metal objects and metalworking residue was dumped into eastern compartment of the cut. This probably happened after the western half had partially silted up and was itself covered by another similar deposit. The similarity of the form of the pit to the surrounding grave cuts, and its placement and orientation suggests that it may actually have been originally dug as a grave before it was filled. Whether it was actually used as one before being emptied and reused is less clear, although the slabs forming compartment 80044 could have been reused from a cist. No evidence for residual human remains



Plate 185. Cut 80044 with slabs 80045, possible anvil emplacement



Plate 186. Feature 80044 cutting through probable grave (cut 80063)

were recorded in any of its fills, however no skeletal material had survived in most of the graves either.

A shallow, irregular hollow (80104) just north of feature 80063 contained frequent charcoal flecks and slag, hammerscale and fuel ash, presumably originating from feature 80063 or related activity. About 6m to the north-west was a shallow hollow (80055), no more than 0.1m deep, with a charcoal-rich fill (80054). This also contained metalworking debris in the form of lining slab, fuel ash slag and hammerscale (sf823, sf4469, sf4515, sf5418 and sf5956).

In total approximately 550g of smithing residue was recovered from the fills the graves, with this spread over much of the cemetery. Grave K, which produced most, was in the opposite side of the cemetery to feature 80063. Cut 80063 produced 3.3kg of smithing residue, with much of this showing secondary cementation into the concretionary material known as “smithing floor”. Such concretionary material is commonly associated with smithy floors (hence the name) where it builds-up around the anvil. It is not however restricted to such an origin, but may form wherever accumulations of smithing debris contain decomposing fragments of iron (T Young). Feature (80055) produced 0.186kg of residue and hollow 80104 produced 0.537kg.

The *in situ* burning in 80055 suggests that this was the smithing hearth, while the quantity of material in feature 80044 suggests that this may have been an anvil base. This suggests a multiple focus for the smithing activity. The occurrence of copper-alloy waste in the “smithing floor” concretions is important, and relatively unusual. The occurrence of tiny scraps of folded copper-alloy strip is suggestive of the bifurcated rivets commonly used in the construction and repair of sheet metal vessels. The occurrence of deposits like this (predominantly smithing remains, with evidence for some use of copper alloy, including as rivets) is recorded elsewhere, with that at the 15th-17th century site at Ballykillaboy, Co. Kilkenny, Ireland, being of particularly similar character (Young 2010a). The use of bifurcated rivets has a long history from the Early Medieval to post-medieval periods (T Young). A fairly high level of use of a siliceous flux may be indicative of the need to weld carbon steel. So the indications are that the smithy was used to work both iron and copper alloy, with sheet metalwork, rivets and nails, as well as production of carbon steel.

Two pieces of young oak wood, presumably fuel, from feature 80044 were dated. The results (cal AD 330–530 (SUERC-81362) and cal AD 250–410 (SUERC-81363)) demonstrated that this activity was late Roman in date but appeared to post-date the cemetery.

Possible prehistoric activity on the hill

Scattered amongst the graves in the south-eastern corner of the cemetery, and just outside it, were several hollows (80107, 80112, 80114, 80116, 80118, 80120, 80122 and 80143). Feature 80114 was 0.27m deep and might have been a posthole but the rest were little more than naturally accumulated deposits in hollows. Feature (80143) contained a single piece of struck flint (sf5859), 80114 had some tiny fragments of burnt bone (sf4506) and 80116 had a flint flake (sf5852) and a tiny fragment of prehistoric pottery (sf5855). The rim fragments from an Early Bronze Age Food Vessel (sf1635) (volume 3, Fig I.1.1.12) and further pieces of unidentified prehistoric pottery (sf1637) were recovered from the ploughsoil (80002) on the top of the hill during machine stripping, so there may have been some prehistoric activity on top of the hill pre-dating the cemetery.

Interpretation and date

This small cemetery is similar to other ‘kin’ or ‘settlement’ cemeteries on Anglesey, thought to have been the burial ground for a kin-group. Longley (2009, 109-110) presents dates from cemeteries in Wales, which suggest a start to the long cist burial tradition in the 5th or 6th centuries AD and a continuation possibly into the 11th or 12th centuries. The date list is deceptive as it includes all dates from the quoted sites and in many cases the earliest dates do not relate to burials, such as Capel Maelog, where all the early dates belong to pre-cemetery features (Britnell 1990). Dates from other sites have been published since, such as ones from Brownslade and West Angle Bay in Pembroke indicating burial at the former site from the sixth to 11th centuries AD and mid-7th to early 12th AD at the latter (Ludlow 2011, 189).

To these dates can be added other dates recently obtained on Anglesey. There are dates of cal AD 680-880 (SUERC-71027) and cal AD 690-880 (SUERC-71028)²⁰ from a cemetery near St Iestyn’s Church, Llanddona (Evans and Jones 2019, 145-146). Two samples of human bone failed to produce dates so these are on charcoal from grave fills and indicate little more than that there was some activity in the area in the 8th and 9th centuries AD. The earliest date for a long cist burial from North Wales was recently obtained recently on a human tibia from a cemetery at Llanbedrgoch, Anglesey. This was from a disturbed grave but the bone was still within the fill

20 Calibrated at 95.4% probability SUERC-71027: 1244 ± 33 BP, SUERC-71028: 1230 ± 33 BP

of the grave and certainly from that grave. The bone was dated to cal AD 430-600 (SUERC-64279)²¹ (Evans and Jones 2019, 145-146). The latest burial from the region from a standard long cist was found partially under the wall of St Mary's Church, Nefyn (Rees and Jones 2015b). The well-preserved female skeleton produced a date of 1165-1270 (Beta-378224)²². This shows that long cists graves could be used into the 13th century and not all can be assumed to be early.

Long cist graves are therefore generally assumed to be of Early Medieval date, used from the 7th century AD into the 12th or 13th centuries. As the Parc Cybi cemetery was similar to these other cemeteries it was assumed to fall within this date range, however the evidence suggests that it was considerably earlier. Radiocarbon dates could not be obtained from human remains from the cemetery, so the date of the cemetery relies on two radiocarbon dates obtained from the smithing activity in feature 80044. The dates from 80044 were cal AD 330-530 (SUERC-81362) and cal AD 250-410 (SUERC-81363), these were statistically consistent and therefore reliable, and give a late Roman date for the smithing.

Young (current report, vol 3, part XII) suggests that the presence of smithing debris in the grave fills indicates that some of the graves at least were later than the smithing activity. However, most of the fill presumably entered the graves when the lintels were removed by ploughing or other disturbance, and the metal-working debris might have been introduced at that stage from the ground surface.

The dating of the cemetery relies on feature 80063 being identified as a disturbed grave. This feature was the size and shape of a grave, was on the same alignment as the other graves, and located in the regular layout of the cemetery in a position where a grave might be expected. The possibility that feature 80063 was an inherent part of the smithing activity has been considered. Young compares features 80063 and 80044 to a fire pit with a small stone box at one end found at Pontardulais and dated to 410-660 cal AD (HAR-959)²³ (Ward 1978, 56-57). In this case the larger pit is not grave-shaped and the stone box is very much smaller than 80044 at 0.3m by 0.2m. The Pontardulais hearth is similar to another hearth found at Gelligaer (Young 2015), which was used for smithing and probably had an anvil supported on stones at one end and the hearth at another. This feature was Early Medieval in date. Although both features were elongated neither closely resembled a grave and cannot be used to prove that 80063 was dug as part of the smithing activity rather than being a pre-existing grave cut.

It appears most likely that feature 80063 was a grave, in which case it was entirely desecrated by the construction of feature 80044, which may even have used cist slabs in its construction. This suggests the smithing post-dated the abandonment of the cemetery by a long period. Young (current report, vol 3, part XII) states that iron working was fairly common in cemeteries in Early Medieval Ireland, presumably due to the cemeteries being used for community gatherings or fairs, but the reuse of a grave as part of a smithy seems unlikely in a cemetery still being used.

The dates from Parc Cybi suggest that the cemetery belonged, not to the Early Medieval period, but to the late Roman. Inhumation became common throughout the Roman Empire by the mid-third century, with most burials being simple, extended and unfurnished in small cemeteries (Arnold and Davies 2000, 137), so this date is not impossible.

21 Calibrated at 95.4% probability SUERC- 64279: 1526 ± 20 BP

22 Calibrated at 95% probability Beta-378224: 750 ± 30 BP (measured age), 810 ± 30 BP (conventional age, i.e. with correction for isotopic fractionation)

23 HAR-959: 1500 ± 70, recalibrated

Early Medieval

Corn dryers

See figure 7 for locations and figures 91, 103, 105 and 106 for plans and sections

Description

Scattered over the southern part of the site but mainly concentrated in Area K were several features interpreted as corn dryers. These were generally distinguished by a roughly dumbbell shape in plan, evidence of burning in one end and often quantities of charred remains including charred grain. They are typologically similar to Irish corn dryers generally with a medieval date.

Two corn dryers (PRN 76100 and 76101) were constructed within the Roman period building complex in Area K9 (figure 91), but the stratigraphy of at least one of these suggested they were considerably later than the buildings. One corn dryer (80835, PRN 76100) lay close to the south-western corner of the square building (structure 80526). The corn dryer was sub-rectangular in shape, measuring 1.9m by 1.2m and 0.9m deep, and was orientated north-west to south-east, exactly perpendicular to the surviving wall of the building. It probably had a flue at the north-western end and the south-eastern end was lined with stone, with evidence of two phases of lining (plate 187). The first layer of lining stones (80888) were set in clay (80882), which was burnt red and many of the stones were heat-cracked (figure 105.1). After the first use a gravelly levelling deposit (80886) was deposited in the corn dryer and then the second layer of lining stones (80829) were inserted. These were also heat-cracked. Although some deposits contained charcoal, there was no distinct charcoal-rich layer as might be expected if the corn had accidentally caught fire.

This corn dryer cut through a layer (80831) that appeared to be a relict ploughsoil. This layer sealed rubble deposits (80827) from the demolition of the stone building. The corn dryer therefore appeared to be much later than the building if there had been time for ploughsoil to accumulate over the rubble. Next to corn dryer 80835 was a feature (80851), presumably a posthole as it had large packing stones around the edge of the cut. This feature measured 1.00m by 0.35m and the level of the packing stones suggest that it was originally at least 0.33m deep. This also cut through rubble deposits and through the line of the wall of structure 80526. This is therefore likely to have been associated with the corn dryer. A pit (80586) to the south of the corn dryer may possibly have also been associated though there was no stratigraphic or artefactual evidence to show whether it had been associated with the dryer or with the Roman period activity. The pit was roughly circular, about 1.0m in diameter and 0.3m deep.

Just beyond the proposed north-eastern corner of structure 80526 was a large pit (80924, PRN 76101) cut through the relict soil (80819). This feature was almost a 'figure of eight' shape in plan and was orientated north-east to south-west, measuring 2.6m in length and 1.12m in width. The pit was substantially deeper at its south-western end, where it was 0.74m deep, but only 0.33m at its north-eastern end (figure 105.2). The south-western end was lined with firm yellow clay (81039), which was not heat-reddened. This end of the feature was then partially filled with a charcoal-rich black clay-silt layer (81072) sealed by schist slabs. These slabs (81038), although flat, were arranged in a haphazard fashion, and were restricted to the south-western end of the pit, but they did seem to form rough flooring and brought up the level of the base of the north-eastern end. Overlying the stones a 0.19m thick layer of charcoal-rich black-clay silt (81034) filled the entire length of the pit. This deposit in turn had schist



*Plate 187. Corn dryer
80835 (PRN 76100)
adjacent to structure
80526*



Plate 188. Corn dryer 80924 (PRN 76101), showing stone lining

slabs (81020) laid on its surface. These extended the full length of the pit, but were more carefully arranged to the north-east, where there was a large slab measuring 0.8m in length. These stones appeared to constitute base slabs, with more slabs (80925) forming a stone lining to the sides. A succession of burning events took place inside this structure resulting in a black, charcoal-rich layer with yellow clay lenses (81006) accumulating on the basal slabs, which produced fragments of burnt bone (sf6434) (plate 188). The pit was then completely filled with a stony red-brown silt-clay (80926).

Running from the north-east end of 80924 was a narrow, slightly sinuous gully (80590), containing fragments of burnt clay. This cut a similar, but longer, gully (80592), which cut through the prehistoric pit group (PRN 31573). The

southern end of 80592 was lost and confused, but 80590 ended at pit 80924. The fills of the pit and the gully were similar and their relationship was difficult to demonstrate clearly. One of the side slabs blocked the end of the gully, and it is possible that the pit cut the gully, but the similarity of their orientation and the lack of a continuation of the gully south of the pit suggest that the two features were related. The burnt clay in gully 80590 probably also originated from the lining of pit 80924. It is possible that both 80590 and 80592 were sequential flues for the pit, until the last phase of use when the whole pit was lined with stone.

The shape of pit 80924 and the charcoal-rich layers within it suggest that it was corn dryer, and like corn dryer 80835 it had at least two phases of lining. The gullies suggest that it may originally have had long flues but that these were then abandoned when the whole pit was lined with stone.

The not far to the west the rounded hill in Area K seemed to be a focus for corn dryers; with two near its summit (see figure 126 for location) and one on the eastern side. One of these was found just over a metre to the west of Grave A (figure 103), on the south-western side of the cemetery (PRN 31601, SH 25638 80831). The cut (80056) gave the impression of being two circular pits, approximately 1.25m in diameter, both linked by a short (0.4m long) north-west to south-east aligned channel approximately 0.8m wide. The south-eastern circular feature and the linking channel had steep sides (0.37m deep) and a flat base. The north-western end of the cut consisted of a deeper, bowl-shaped cut, with a maximum depth of 0.55m. All of the component parts appear to have been in contemporaneous use and possibly dug in a single episode of activity.

The north-western bowl contained two fills in its base, which were confined to this part of the feature (figure 105.3, plate 189). The basal fill (80127) consisted of a 0.07m deep layer of grey-black clayey silt with very frequent charcoal flecks. A number of fragments of burnt bone (sf4436) were recovered from this deposit. Above this lay a thin lens of orange brown silt (80126), containing more fragments of burnt bone (sf4435, sf4521, and sf5857), and tiny fragments of burnt clay (sf5856). Layer (80058) sealed these deposits and extended across the entire length of the feature, forming the basal deposit in its south-eastern end and the linking channel. It was thickest at the north-western end of the feature, where it reached a depth of 0.25m; elsewhere it was between 0.10 and 0.18m deep. It consisted of a dark greyish brown charcoal-rich clayey silt with more burnt bone (sf5861).

Three large stones (80128) appear to have been placed in the top of the feature and were embedded within the top

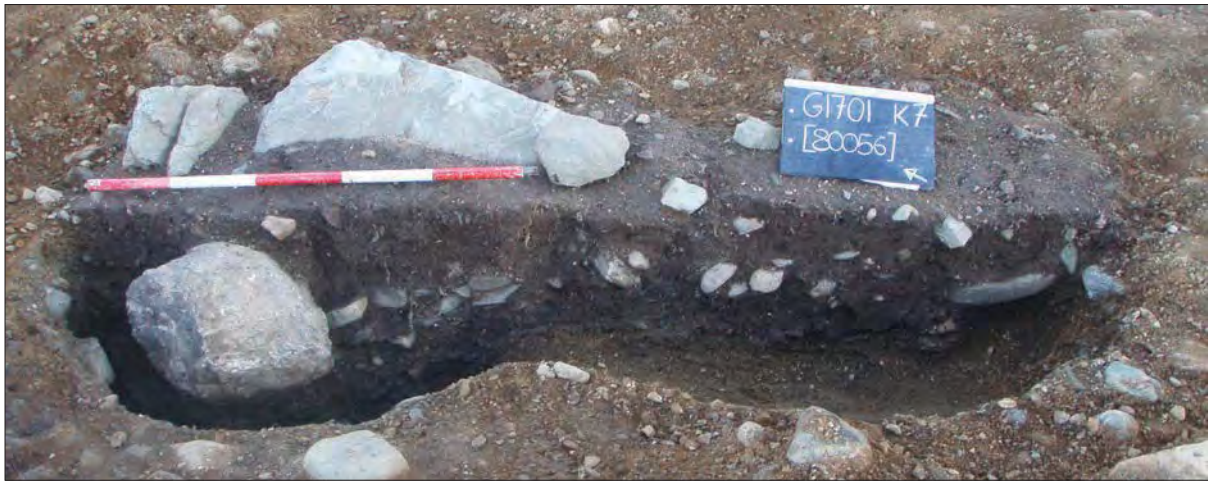


Plate 189. Corn dryer 80056 (PRN 31601), half sectioned

of deposit (80058). Two schist slabs were deposited in the north-western end, and appeared to be resting on their sides against its northern edge. A large sub-rounded cobble, 0.60m in diameter, was located towards the centre of the north-western end. When the feature went out of use it filled with brown colluvial deposits (80125 and 80057), which produced a flint flake (sf5926) and a perforated sandstone disc (sf4476), possibly a fishing weight.

Approximately 16m from the north-eastern corner of the cemetery was another possible corn dryer (PRN 31602, SH 25659 80851). This was an oval shaped pit (80137), 2.3m long, 1.30m wide and with a maximum depth of 0.50m, which had been dug on a north-west to south-east alignment (figures 106.1 and 2). The pit was slightly narrower and shallower at the north-west end where it was recorded at 0.30m deep. Around 0.80m along its length, the flat base broke gradually into the deeper bowl-shaped cut, which formed the south-eastern end of the feature. The maximum depth of the cut at this end was recorded at 0.50m. The form of the cut is consistent with an interpretation as a corn drying oven, with the flue at the north-western end and the drying chamber in the slightly wider and deeper south-eastern end.

A well-built 'C' shaped stone structure (80138) had been constructed against the sides of the south-east end of the cut (plate 190). It was made from unbonded sub-rounded schist cobbles, up to 0.43m long. The structure was a single stone in width and comprised 3 courses of cobbles on the western side and 2 on the east. Together the cobbles formed the 0.40m wide wall of a stone drying chamber, approximately 1.6m in diameter and up to 0.50m high. The chamber was open at the flue end to the north-west, though it appears to have been blocked by seven or eight smaller cobbles, which presumably had tumbled into the entrance from the walls after it had gone out of use.

The base of the chamber was filled with a 0.19 m deep layer of brown-black sandy silt with abundant fragments of



Plate 190. Corn dryer 80137 (PRN 31602), showing stone structure



Plate 191. Corn dryer 21051 (PRN 31603), half sectioned, showing stones in the fill

charcoal (80139) and burnt bone fragments (sf 4430, sf4463, sf 4498, sf4540, sf5556, sf5557, sf5958 and sf6124). Above this primary fill lay a further layer (80142) of brown sandy silt with occasional charcoal fragments. The deposit extended beyond the confines of the stone chamber and filled the entire length of the feature. A rubbing stone (sf4103) was recovered from the flue end of the deposit and more burnt bone fragments were recovered (sf4441, sf5563, sf5572, sf5927).

On the eastern slope of the hill (PRN 31603, SH 25673 80819, see figure 48 for location) was a figure-of-eight shaped cut (21051), orientated north-east to south-west and about 2.09m long with a maximum width of 0.85m and depth of 0.42m (figures 106.3 and 4). It had steep flat sides, which broke sharply to a flattish, slightly concave base. This was a typical corn dryer shape with the drying chamber formed by a bowl located at the south-west end of the feature. At the other end of the proposed flue to the north-east, the firing chamber lay at a slightly lower level. A number of large flattish angular stones, between 0.12 and 0.5m long, lay within the dryer's two fills, (21052) and (21053), which may represent the remains of a stone lining in the flue and firing area (plate 191). Layer (21052) formed the basal fill of both the firing chamber and flue and contained lenses of charcoal and heavily oxidised clay. It contained unidentified fragments of burnt bone (sf2070 and sf4290). The upper fill contained 2 fragments of flint (sf1267 and 1314), which might be assumed to be residual.

Corn dryer 21051 also contained three pieces of black glassy slag and a tiny fragment of the same material (sf6092 and 1283). This material was produced at a high temperature. It could have come from a smithing hearth and be intrusive to the corn dryer or possibly was the result of an accidental fire in the dryer that got to very high temperatures.

Another feature, almost certainly a corn dryer was found in Area Ia (PRN 31604, SH 25657 80667, see figure 96 for location). Feature 21229 (figures 106.5 to 7) was located towards the base of the north-west facing scarp in Area Ia. It measured 2.44m in length by 0.90m wide and 0.50m deep, and was isolated from other features with the exception of ditch 08020. Feature 21229 was orientated north-west to south-east almost perpendicular to this ditch and they may have been related. The basal fill of 21229 was rich in charcoal and contained tiny fragments of burnt bone. There were traces of heat-reddening on the sides and base of the feature. Stones between the two chambers may have been the remains of a stone-lined flue (plate 192). Its dumbbell shape in plan is typical of a corn dryer, but the sample of the charcoal-rich layer produced little identifiable charcoal and no charred cereal grains. It is possible that the bone was introduced accidentally with the fuel.



Plate 192. Corn dryer 21229 (PRN 31604)

Plate 193. Possible corn dryer 22158 half sectioned (PRN 81343)



There appears to have been another corn dryer in Area B3 (PRN 81343, SH 25678 80708). About 18m east of the enclosure in this area, and close to the limits of the excavation was a shallow, irregularly shaped pit (22158) measuring 0.8m by 0.7m and up to 0.15m deep (figure 106.8 and 9, plate 193). It had evidence of intense burning on its base, stones in the base appeared burnt and it was filled by a densely charcoal-rich deposit 22156. The quantity of charred grains, over 8000 present in one sample, strongly suggests that this was also a corn dryer. This feature was not dated but the presence of oats indicates a medieval date and it is likely that this was used at the same period as the other corn dryers (see below for dates).

Charcoal and charred plant remains

A range of species were used as fuelwood in the corn dryers. In most periods across the site oak was the dominant species in charcoal assemblages but this was not the case in the corn dryers. Alder, hazel and possible buckthorn were used in corn dryer 80056 (PRN 31601) as well as some oak, with two samples containing only the possible buckthorn. Corn dryer 80137 (PRN 31602) contained only willow/poplar charcoal with no oak present at all. Samples from corn dryer 21051 (PRN 31603) were dominated by oak charcoal but there were also significant quantities of *rosaceae* and hazel charcoal present. Corn dryer 21229 (PRN 31604) contained willow/poplar, oak, ash and *rosaceae* charcoal, with willow/poplar making up about 50%. Seven samples were recovered from different layers in corn dryer 80835 (PRN 76100). Two of these contained only oak charcoal, two were dominated by oak with willow/poplar and hazel also recorded, Two samples were dominated by hazel with willow/poplar and oak charcoal also present. This suggests that sometimes oak alone was used to fire the corn dryer and sometimes mixed species were used. The four samples from corn dryer 80924 (PRN 76101) showed that willow/poplar and hazel had been used as well as oak, with proportions of those first two species being higher in some sample than the proportion of oak (McKenna, volume 3, XIX.3). Oak and hazel were used as fuel in feature 22158 (McKenna, volume 3, XIX.2).

The variety of species used suggests that oak was less available and shrubby species may have been more common, though there may have been a preference for small branches that were easy to collect and quick to burn.

All the corn dryers contained significant quantities of charred cereal grains, with many samples containing over

8000 grains, as well as chaff. In most of the classic corn dryers (21051 (PRN 31603), 80056 (PRN 31601), 80137 (PRN 31602), 80835 (PRN 76100) and 80924 (PRN 76101)), as well as the simple pit corn dryer (22158 (PRN 81343)), the identifiable grains were mainly barley with smaller amounts of oat and wheat. In contrast oat, including chaff fragments, was the most numerous species present in corn dryer 21229 (PRN 31604), but barley was also well represented and there was also some wheat. As a large proportion of the grains were unidentifiable to species the proportions of identifiable grains may not be directly representative of the proportions of crops dried. However, it does suggest that barley was an important crop. It has been suggested that a combination of wheat chaff and barley grains in corn dryers may be the result of the wheat chaff being used as fuel to dry the grains of barley (McKenna, volume 3, part XIX.4).

Most of the corn dryers also had a small number of charred seeds from weeds typically associated with cultivation. The generally low proportions of chaff and weed seeds indicated that the charred cereal grain is representative of processed crops that were being dried prior to milling or storage. The simple pit corn dryer (PRN 81343) contained charred sprouted grains and detached embryos, which may be indicative of malting, however they could represent the disposal of spoilt grain, which has started to germinate due to being damp (McKenna, volume 3, XIX.4)

Dates

Table 9. Radiocarbon dates from corn dryers on Parc Cybi

Lab ID	Context	Cut	Material	Radiocarbon age (BP)	Calibrated date (95.4% probability)
SUERC-85152	80837	80835	charred wheat grain	2193 \pm 21	360–190 cal BC
SUERC-85153	80885	80835	charred barley grain	1498 \pm 24	cal AD 470–640
SUERC-85154	81034	80924	charred wheat grain	1538 \pm 24	cal AD 420–580
SUERC-85158	81072	80924	charred oat grain	1577 \pm 24	cal AD 420–550
SUERC-85159	80127	80056	charred wheat grain	1513 \pm 24	cal AD 430–610
SUERC-85160	80127	80056	charred barley grain	1563 \pm 24	cal AD 420–550
SUERC-85161	21231	21229	charred wheat grain	1541 \pm 21	cal AD 420–580
SUERC-85162	21231	21229	charred barley grain	1591 \pm 24	cal AD 410–540
SUERC-85163	80139	80137	charred wheat grain	1555 \pm 24	cal AD 420–560
SUERC-85164	80139	80137	charred oat grain	1577 \pm 24	cal AD 420–550
SUERC-85168	21052	21051	charred barley grain	1535 \pm 20	cal AD 420–590
SUERC-85169	21052	21051	charred oat grain	1555 \pm 24	cal AD 420–560

The dates from all the corn dryers are remarkably consistent with the sole exception of SUERC-85152, which appears to be on a residual wheat grain. Considering that this corn dryer (80835) was cut into Roman period deposits the presence of this Iron Age date is hard to explain, but there may also have been some Iron Age activity in Area K9 that was not identified. Excluding this early date the dates from the corn dryers have been modelled and this suggests that the corn drying activity at Parc Cybi began in *cal AD 410–545 (95% probability)*, and probably in either *cal AD 425–485 (55% probability)* or *cal AD 525–540 (13% probability)*. The corn drying activity lasted up to *170 years (95% probability)*, and probably either *1–75 years (65% probability)* or *115–130 years (3% probability)*. The activity ended in either *cal AD 435–515 (38% probability)* or *cal AD 535–610 (57% probability)*, and probably in either *cal AD 475–495 (21% probability)* or *cal AD 535–585 (47% probability)* (Hamilton volume 3 part XXIV). The corn dryers were clearly used in the 5th or 6th centuries AD. It is not impossible that they were all in use at the same time but may have been used over a period of up to 75 years, or possibly longer. The dates cannot determine how long each individual corn dryer was used for but the relining of features 80835 and 80924 does hint that they may have had more than one phase of use.

As three of the dates (SUERC-85158, SUERC-85164 and SUERC-85169) were on oats. This shows that this cereal was being grown by the 5th or 6th centuries and presence of oats in three separate corn dryers suggests that it was a crop, rather than just being a weed in the wheat crop.

Post-medieval

Introduction

See figure 8 for general locations

The majority of the site was, by the 18th century, owned by the Penrhos Estate, and map evidence helps interpret much of the archaeological detail from the later post-medieval period. A survey of 1769, with a fine book of maps (Penrhos II 772 and 775), provides detailed information on the farms in the 18th century (figures 107 and 108). Another survey was undertaken in 1817 resulting in a large scale map in four sheets (Penrhos 778 to 781) with reduced plans produced with additional information (Penrhos II 804) (figure 109). Occasional other plans and surveys provide information on specific farms. The tithe map dating to 1841 shows changes in the first half of the 19th century (figure 110), and the County Series 25 inch maps show how the area developed in the late 19th and early 20th centuries (figures 111, 112, and 113).

A number of small farms occupied the site, some of which were only demolished in the 1970s, or more recently, though others disappear from the map evidence in the early nineteenth century. The farmstead of Pen y Lôn (occupying part of Area B2) is shown on the 1768 and 1817 maps but not later. Adjacent to Pen y Lôn was the farm of Bonc Dêg (Area L8), owned by Lord Boston and then Lord Newborough and probably originating in the eighteenth century. The site of this farmhouse was not exposed in the excavations, but large pits containing rubble from it were revealed. Some of the best preserved remains were those of Tyddyn Pioden (Area E). A house of that name still exists but the original farmstead was some distance away to the south-east. Trefignath Farm, the largest farm in the area, which gave its name to the standing stone and chambered tomb, also shifted its location. In 1769 it was probably just outside the development area to the north of the chambered tomb. It then moved closer to Lôn Trefignath where a large farmhouse was built in a commanding position. The buildings of Merddyn Poeth, in Area A, were demolished at the start of the present project but the remains showed no evidence of its eighteenth century origin.

Tegwyn F Jones, now an artist living in Bodedern, grew up in Holyhead, living on Cyttir Road. As a boy he explored the fields and when he was 14 years old in 1953 he recorded the landscape for a school project. The finished paintings do not survive but his sketch pad does and shows the landscape with the farm buildings but with very few trees. These images are reproduced here with his permission. Plate 194 shows the view from the northern end of the site looking south down Lôn Trefignath to the farm of Bonc Dêg and beyond to Trefignath Farm on the hill. Plate 195 shows the farmyard of Bonc Dêg looking in from the road and plate 196 shows the view across the site from the lane towards Tyddyn Pioden and Merddyn Poeth with the wind mill beyond.

Mr Jones also remembers that the gentleman then living at Tyddyn Pioden referred to the area at the north-western end of the marsh (our Area B2) as ‘pant yr hen bobl’ (hollow of the old people). Young Tegwyn was confused by this and thought it might be a reference to the old couple living in Bonc Dêg but now it can be seen to be a memory of the existence of the roundhouse settlement. The memory might not have been very ancient as the walls of the settlement had been robbed out and presumably used for the surrounding field walls in the nineteenth century, but local people must have been aware that the stones they were using came from an ancient settlement.

Farmsteads

Tyddyn Pioden (PRN 18403)

The modern house of this name is at SH 2510 8092, outside the development area, but the earlier maps (1769 and 1817) show that it was originally further east (figures 107 and 109). The earliest spelling on the maps is Tyddyn y Pregodyn (Penrhos II 772) but this has been corrected on the map and in one copy of the reference book to “Piodyn”. It is called Tyddyn y Biodan on the tithe map and Tyddyn Piodan on the 1817 estate map (figure 109).

In 1769 the farmhouse is shown in a small, rather oddly shaped enclosure marked as “House and Garden” in the reference book (figure 114). The occupier was Robert Humphreys. Tyddyn Pioden included the field in which the standing stone was located. This field (F2) was known as Cae Cerrig (stone field) (Penrhos II 772 and 775) (figure 107). Several of the fields, including these two are shown as ploughed but the rest of the farm was pasture. The large scale 1817 survey (Penrhos II 778) shows a farmhouse with a porch and two outbuildings and a track running to the west (figure 114).

By the tithe map of 1841 the farmyard in the fields had gone (figure 111). There is a building shown next to the



Plate 194. The view in 1953 from the northern end of the site looking south down Lôn Trefignath to the farm of Bonc Dêg and beyond to Trefignath Farm on the hill (painted by Tegwyn F. Jones and reproduced with his permission)



Plate 195. The farmyard of Bonc Dêg in 1953 looking in from the road (painted by Tegwyn F. Jones and reproduced with his permission)



Plate 196. The view in 1953 across the site towards Tyddyn Pioden and Merddyn Poeth with the wind mill beyond (painted by Tegwyn F. Jones and reproduced with his permission)

road, at c. SH 2510 8078 (PRN 31605), but this was Tyn'y Coed, a house on its own, and not part of Tyddyn Pioden. It is only on the First Edition County Series map (1889) that a house called Tyddyn Pioden appears next to the road and on Tyddyn Pioden land, by which time Tyn'y Coed no longer existed (figure 111).

The tithe map also showed that the Tyddyn Pioden land had been divided and the eastern part became Tyddyn y Biogen with a house next to Lôn Trefnath (figure 110). The fields had been reorganised and while there was still a field (field 1276) called Cae Carreg it no longer contained the standing stone. Traces of the house and yard of Tyddyn Biogen were found in the north-western corner of Area M. Here the remains of a wall corner (19214) were recorded (plate 197). The wall ran north-east to south-west then turned a right angled corner to run south-east. The wall was about 0.77m wide and only the very base survived to a depth of only 0.15m. Frequent late post-medieval pot and glass sherds were recovered while cleaning this area. As the wall corner was about 28m from the road edge this would appear to be the western corner of the yard in which the cottage originally stood (figure 114). A small building survived here until at least 1924. This site has been allocated PRN 18402.



Plate 197. Wall 19214 that formed the boundary to Tyddyn Biogen yard

Farmhouse and yard

Figures 115 and 116

Excavation revealed remains of a building at SH 25337 80821 in the position indicated by the maps for Tyddyn Pioden. This building had first been located by soakaway SA90A during a watching brief on test pitting in 2006 (J. A. Roberts 2006). The building was on the north-eastern side of a ridge of gravel, above the boggy hollow to the south. The 1769 form of the farmyard fits quite well with the archaeological evidence (figure 115) and the change to the triangular farmyard of 1817 can be seen.

The eastern boundary of the farmyard was marked by the surviving fragment of a wall (31331) and a parallel ditch (31332). This and the northern farmyard boundary had been incorporated into field boundaries that continued in use until after 1953. Part of the southern boundary was indicated by a short fragment of wall (31347) constructed with large boulders. The construction made the wall appear ancient (plate 198) and it is possible that this was an earlier field boundary that survived largely buried in ploughsoil. The western boundary corresponds quite well with a shallow ditch (31179) that continued north-west beyond the farmstead as 31176.



Plate 198. Small fragment of boulder-built wall (31347)

On the western side of the probable farmyard were the remains of a small building. The building remains were recorded as Group 31174, which refers to a collection of features that together form a small structure measuring approximately 4.80m by 3.25m (figure 116, plate 199). This was constructed in a rectangular terrace cut (31223), with a steep western side, where it cut most deeply into the slope. At this side the terrace was up to 0.5m deep and the depth reduced towards the east with the angle of the slope. The western side of the cut was not quite straight,



Plate 199. Building remains Group 31174, with cobbled floor and hearth base

as the southern end seems to have been recut to provide a square emplacement of a chimney or hearth base.

A make-up deposit (31398 and 31399) of grey or brown silt with varying quantities of stones lay within the main building terrace cut, and was overlain by a well-made cobbled floor (31219). The floor was mainly composed of small and medium cobbles, up to 10mm long. These were closely packed in the eastern part of the surface whereas those lying to the west were larger, up to 0.5m, and less densely packed. Several of the cobbles formed lines but overall the arrangement within the cobbled area was rather random. Many of the stones were thin and set on edge, but within the surface there are also a number of larger horizontally set stones. Most of the stones were schist but occasional quartz pebbles were also utilised. A large slab, measuring 1.35m by 0.5m, lay along the eastern edge of the floor. It was raised to a slightly higher level than the others were and was roughly aligned along the long axis of the building. It seems to have been a threshold stone but some of the small cobbles continue to the east of it.

At the level of the cobbles pressed against the western edge of the terrace cut was a row of small angular stone blocks up to 0.2m in length (31419). The line of these was continued by an *in situ* lump of plaster and a layer of red brown clay. This seems to have indicated the inner face of the wall, which appears to have been plastered. The row of stones probably represented the edge of the cobbled floor where it met the wall, but the western part of the floor had been damaged and did not reach the wall.

Cutting through the floor make-up layers and dug as part of the construction phase of the building was a shallow cut (31397) made into hold two large stone slabs. A thin layer of gravel (31396) was placed in the base of the cut on which two large slabs (31220) up to 1.5m in length were placed. The largest of the slabs had broken in two, and small packing stones were inserted to fill the gap between this and the other slab. Another stone to the north appeared to have been disturbed and it was slightly tilted. Originally the surface of this stone was set around 0.12m higher than the main slabs and roughly level with cobbled surface (31219). This stone may have acted as a step down onto the main slabs. The two main slabs were partially covered by a thin layer of fine charcoal (31395), consisting largely of charcoal dust, and suggestive of a fire. Although there were no obvious reddened areas or extensive heat cracking on the slabs, they were most likely hearth stones.

Layer 31395 was partially covered by two schist slabs and some smaller stones (31394) in a matrix of fine red-brown sand with patches of friable degraded white mortar. These stones seemed to have been quite carefully placed but they would have blocked the use of much of the hearth. The mortar was not bonding the stones and seemed to be fragments from elsewhere. The stones might have collapsed from a structure above or they might represent a remodelling of the hearth.

Hearth slabs (31220) seemed to have been positioned to fit around a square steep-sided cut (31393) 0.3m deep. This must have held a post in use with the hearth, but it was filled with a red-brown silt with flecks of burnt silt and charcoal. Another possible posthole just south-east of the hearth was represented by a sub-rectangular cut (31501), 0.26m deep, located near to the south-eastern corner of the building terrace. This feature contained loose brown silty gravel fill, which might have fallen in from the sides when a post was removed.

The floor (31219) was damaged, especially on the western side, and the gap was filled by a dump of stone (31222). The floor and the hearth area were all covered by a firm yellow-brown silty clay mixed with grey silt (31221). This deposit overlay and obscured most of the remains of the building and filled in the building terrace. This clay material may have been the remains of a cob wall and is likely to have originated from the demolition of the structure. This layer produced a silver coin (sf4440) of medieval or early post-medieval date, but it was corroded and featureless so could not be date more precisely (plate 200).



Plate 200. Featureless silver coin (sf4440) found in clay over building 31174



Plate 201. Wall 31224

The trace of plaster on the inner face of the terrace cut suggests that the wall of the structure was on top and outside the cut with the terrace designed to level the floor of the structure. A patch of clay (31400) similar to 31221, but possibly *in situ*, just west of the terrace may have been a surviving trace of the wall itself. The scarcity of postholes or other roof supports along with the quantity of clay in the demolition level does suggest that the walls were of cob construction.

A linear feature (31190) containing what initially appeared to be packing stones was located to the west of, and parallel with, structure 31174, and underlying the clay (31400). This was in the right position to be related to the wall, but the stones were firmly embedded in the natural gravel and it seemed to be a periglacial frost formation coincidentally on the same orientation as the building.

A shallow hollow (31182) west of the building contained quantities of limpet shells and 18th century pottery, while another shallow pit (31184) closer to the building contained mid-19th century pottery, probably relating to the latest use of the farmyard before its demolition.

To the north of the building was the foundation of a wall (31224), 0.7m wide, aligned west-north-west to east-south-east. The wall (31224) was composed of large slabs of schist up to 0.52m by 0.46m as facing stones and a core of smaller stones (plate 201). Between the wall and the building was a stony spread (31225), presumably collapse from the wall, overlying fragments of a possible stone surface (31226). The spread of collapsed stone continued as a broad deposit up to 0.45m deep (31257) and this sealed the remnant of a boundary ditch (31256), no more than 0.15m deep.

The surviving remains suggest a very small building, but the maps suggest that this was the north-east end of the farmhouse, which was aligned roughly north-east to south-west (figure 115). On the northern side there was considerable later disturbance by pit 31228, but some stones in the pit (31227) and a small collection of *in situ* slabs (31416) might represent traces of paving or other features associated with the building. The maps show the building extending to the boundary 31179, making the building about 10m long, but there were no traces of the western part of the building, not even a terrace into the slope. Wall 31224 was the northern wall of the farmyard as shown on the 1817 maps. The substantial nature of the wall shows that this was a well-constructed walled farmyard that this date.

Smithing Activity

Figure 116

In the eastern part of the farmyard (figure 116) were several shallow pits (31345, 31268, 31334, 31327, 31325, 31265), ranging in diameter from 0.4m to c.3m. Their fills had a high organic content and resembled topsoil. They produced no finds with the exception of pit 31265, which contained some quite fresh animal teeth (sf925). These pits were presumably associated with the 18th and 19th century farmstead. However, some of these pits cut several parallel linear features. There was a shallow ditch (31329) with a broad, shallow elongated pit (31270) to its north and three narrow intercutting gullies (31156, 31155, and 31154). None of these produced finds but an oval pit just north-west of the gullies contained large quantities of smithing waste. This pit (31152) measured 1.3m



Plate 202. Pit 31152 containing smithing waste

by 0.7m and was 0.25m deep (plate 202). It contained abundant micro-residues and macroscopic slags typical of smithing, including hearth lining slags and smithing floor material as well as flake and spheroid hammer scale. It also contained a copper alloy buckle tongue (sf5517). Study of the smithing waste (Young, current report, vol 3, part XII) suggested that this came from a charcoal-fuelled hearth with a blowhole in a ceramic wall or tuyère. Pit 31152 is large for a smithing hearth, so if this was not the hearth itself it is probable that the hearth was nearby and had been destroyed by ploughing.

The narrow gullies (31154, 31155, and 31156) seemed to run from the pit, but are unlikely to have been flues and their relation to the smithing activity is unclear. The gullies survived to a maximum depth of 0.28m and had brownish grey clayey silt fills with moderate amounts of sand and gravel.

About 12m north-east of the pit was a series of circular gullies. These features were two near circular gullies and a curving gully apparently created sequentially. The earliest of these features (31164/31160) was a curvilinear gully measuring approximately 7.0m in length and 0.60m in width. It survived to a depth of 0.20m and its fill contained three worked flint flakes (sf916) and a small quantity of burnt bone (sf915). This gully was cut by a sub-circular gully (31162) with an internal diameter of approximately 3.20m. Feature (31162) contained moderate amounts of iron slag including hearth lining slag and a large smithing hearth cake (sf918, 919, 922). This was in turn cut by a larger, slightly more oval gully (31166). The interior of this feature measured approximately 6.0m x 5.0m and the gully survived to an average depth of 0.16m. The fill contained occasional iron slag and was cut by enclosure 31168/31244.

Aligned perpendicular to the straight ditches and gullies was a large rectangular ditched enclosure (31168/31244) measuring approximately 14m by 9m. The feature was subdivided into two smaller sections by a central ditch, which ran the majority of the way across the enclosure, stopping short of the north-western wall. The enclosure was open at the south-western end but this could have been the result of later truncation. There were several small pits and hollows inside the enclosure but these seemed to be root disturbed and of little significance. This enclosure was cut by ditch 31256, that represented the northern side of a small enclosure shown on the 1769 and 1817 maps, demonstrating that enclosure 31168/31244 was earlier than the mid 18th century. This enclosure cut the circular gullies, making those even earlier.

Study of the smithing waste (Young, current report, vol 3, part XII.2) shows that the smithing used a bloomery iron, suggestive of iron smelted from a bog iron ore, and the size of the smithing hearth cakes indicate intensive activity. The smithing activity seems to have taken place in a pit, but floor level hearths are not generally found in British smithies after the Middle Ages. The smithing hearth cake from the circular gully is larger than typical for post-medieval smithing and Iron Age examples (e.g. Crawcwellt, Crew 1998). It lies at the maximum end of the size spectrum for Roman and medieval smithies, but well within the range of late medieval (13th century and later). Comparisons with the English evidence would suggest a late medieval age is likely for the smithing in this area, although the evidence from Ireland would suggest that an Early Medieval date is possible.

The suggestions from the character of the smithing debris that this activity may have been much earlier than the 18th century farmstead led to the decision to obtain radiocarbon dates from this material. Two dates were obtained on oak twigs, probable fuel wood, from pit 31152. These dates (cal AD 1020–1160 (SUERC-87442) and cal AD 1020–1190 (SUERC-87443) are statistically consistent and give a reliable date for the smithing in the 11th or 12th

century AD.

The metal-working debris from gully 31162 was similar to that from pit 31152 and could be from the same smithing activity, suggesting the features were contemporary. The circular gullies are likely to be drainage gullies for hayricks or other storage features (see discussion below). These gullies suggest that the medieval smithing took place in a farmyard and suggests that Tyddyn Pioden had a medieval origin. It would appear to have been a small farmstead, much like its later incarnation. The farmyard seems to have remained on exactly the same site and it is possible that the house remains revealed in the excavation were on the site of a medieval house, though remains of this were not identified. This farm had a small smithy that was intensely active for a short period. It is possible the smithy was set up to produce nails and tools specifically to build the original farmhouse.

Pen y Lôn (PRN 14588)

Figures 117-119

The 1769 Estate map shows two buildings listed in the reference as “House etc.” of Pen-y-Lone, clearly representing the farmstead for this farm (Penrhos II 772 and 775) (figure 117). A faint pencil annotation labels the building furthest from the road as “Old House”, suggesting that the house next to the road was in use as the farmhouse in 1769, but that the other building was the original farmhouse, perhaps being used as a barn by 1769. The adjacent field (Field B5) is described as the croft to the house, and a pencil line shows that it was actually two small fields. The map indicates that it was ploughed. In 1769 the occupier was Thomas Lewis and Pen y Lôn was a fairly substantial farm, covering the land subsequently farmed by Trefignath Farm, and even including some land as far away as Cae Glas, near Tregof (Penrhos II 772 and 775). By 1817 Pen y Lôn was part of Trefignath (Penrhos II 803). The “Old House” has disappeared and the cottage was within a small enclosure, with another to the south (Penrhos II 778 and 804). The two small enclosures, probably a garden and a paddock are marked as 87 and 88 (figure 117). Pen y Lôn is shown on the tithe map but all trace of it had disappeared by the First Edition County Series map of 1889.

During the assessment a mound was noted on the aerial photographs and on the ground, which was thought to be a house platform, but stripping for excavation showed it to be an illusion caused by the outcropping bedrock. Very little of the farmstead was recovered during the excavation with the exception of various pits, although the location of the cottage could be quite accurately defined because the later large culvert (90066) followed the dog-legged boundary running around and between the two enclosures on the 1817 map. This places the cottage on the northern edge of Area B2 (SH 25577 80798), immediately to the south-east of the northern end of the culvert 90066, where the field-gate used to give access from the lane (figure 118). No trace of the building was found, but a complex of pits must originally have been close to its southern corner. Two large pits (90084 and 90152) were filled with rubble but they contained no finds. Cutting the upper fill of 90084 was a small pit (90082) containing well-preserved animal bones, the preservation suggesting a post-medieval date. Cutting that in turn was another small pit (90055), which contained sherds of glass, one part of a 19th century bottle, and fragments of coal and clinker, clearly late post-medieval rubbish. However it also produced a fine polished stone axe (sf102) (volume 3, Fig VI.5.1), which was presumably collected in the eighteenth or early nineteenth century, possibly from the chambered tomb, and then discarded in this small pit.

Further south were more pits in an area largely defined by a shallow north-south aligned ditch (90047). This ditch does not fit well with the map boundaries, and a slight, largely truncated ditch (94025) further east would be a better candidate for the eastern boundary of the garden enclosure. Although dating evidence was limited small sherds of post-medieval pottery and pieces of coal, suggest a late date for ditch 90047, which seemed to stop at wall 90222. Ditch 90047 cut a large, rather irregular pit (90050). This pit had no dating evidence but it was similar to another pit (90064), which contained pieces of coal and was presumably post-medieval. A stone spread (90098) was located on the edge of culvert 90066. This spread was cut by a pit (90087) containing a large boulder, but sealed an adjacent pit (90089). Even this earlier feature contained coal and all these features must be post-medieval. Nearby were two small irregular features (90059 and 90061), and three small pits (90039, 90100, 90102) to the east of the ditch. This seemed to be activity in the yard of the cottage, with the stone spread being the remains of the yard surface.

The southern boundary of the paddock marked 87 on the 1817 map (figure 117) was probably indicated by a rough line of stones (91509) to the south of the culvert. It ran north-west to south-east and over-lay other features in the area. Part of this feature, recorded as 92182, had substantial facing stones, up to 0.58m in length. These stones had their flat faces to the north-east forming a fairly neat face to the wall on this side, demonstrating that this was a well-built wall that had been largely destroyed.



Plate 203. Stone spread 90443 and related features

This wall was built over an extensive spread of stone (90443/ 92046/ 92252). This spread was composed of medium and large pieces of local schist, some of which were flat slabs laid more or less horizontally. There was little evidence of this being a carefully laid surface (plate 203), although there were several larger stone slabs, which might have been the remains of a slab floor (92235). A line of five postholes ran west-north-west to east-south-east across the area (92297, 92310, 92298, 92300, and 92350). These postholes were up to 0.65m in diameter and up to 0.33m deep. Some had packing stones and these projected through the stone spread making it appear that the postholes had cut the stone spread. There were three larger postholes (92311, 92299, 92352), the first two of which also seemed to cut through the stone spread. These postholes were up to 0.73m in diameter and 0.48m deep, and 92352 had good packing stones surviving. Two other probable postholes (92184 and 92193), not investigated in detail, but containing post-packing stones, might also have been related to this activity.

A short length of stone-capped drain (92183) ran through the north-western corner of the area. This ran parallel to the line of postholes for about 3m then turned to run north for nearly 2m. Overall the drain was 0.35m deep. The cut (92342) in which the drain was constructed was about 0.5m wide but the side stones of the drain rested beyond the edge of the cut, making the drain up to 0.6m wide. A rough line of stones (92181) might have been the fragmentary remains of a wall, though this was at an odd angle to the line of postholes. Feature 92181 was composed of rather caulsally laid stones up to 0.3m in length with no facing stones or bonding. In this area there were also three pits (92344, 92348, and 92379). Pits 92348 and 92379 were near circular, up to 1.1m in diameter and 0.3m deep, while pit 92344 was rather larger but more irregular, measuring 1.52m by 1.24m and 0.26m deep. Pit 92379 was partially cut by a 19th century culvert 90066. To the north of these pits was a slight gully (92314), no more than 0.16m deep. This was also cut by the culvert and could be traced for about 4m, but hints when it was initially seen suggested that it might have continued further and could have curved slightly.

It is probable that the line of postholes formed one side of a rectangular building with postholes 92184 and 92352 possibly forming part of the north-eastern wall of the structure. One of the stone slabs recorded as 92235 might have been a post-pad on this wall, but the other postholes seem to have been missed in the excavation. The orientation of the drain 92183 suggests that it drained the building and the stone spread seems to have been laid down before construction of the structure started and formed both a floor and an external yard. Initially the stone spread was assumed to be post-medieval in date, but although post-medieval finds were recovered, none was from sealed contexts and most were from disturbed upper layers. The shallow stratigraphy in this area meant that most features were directly below the ploughsoil and it was difficult to distinguish prehistoric from later features. However, a post-medieval date does seem likely for the proposed structure and most of the activity in this area. The fragmentary wall (91509/ 92182) is on much the same position and alignment as the southern boundary of a small paddock (parcel 87) associated with Pen y Lôn farm marked on the 1817 estate map (Penrhos II 804 (figure 117)). As the line of five postholes and therefore the proposed structure were almost exactly parallel to fragmentary wall (91509/ 92182) it seems probable that they were contemporary. The stone spread seems to have been the base of a yard for the building and extends south of the wall, which is built over it. It is possible that the



Plate 204. Line of stone slabs (91968) (walkway/path to the marsh)

building and its yard were constructed before the wall and the building influenced the alignment of the wall, but if the wall is correctly identified as the boundary of the 18th century paddock this still indicates a post-medieval date for the building. No building is shown in this location or on this orientation on the estate maps so a pre-18th century date seems likely.

A line of stone slabs (91968) leading south-south-west from this area resembled a path or walkway (plate 204). This was composed of flat slabs up to 0.95m long laid in a single course. It was discontinuous and rather confused where it turned towards the south-west at its end. Along the eastern side was a spread of stones (92067), which seemed to be supporting or extending the pathway. It appeared that this path was leading from the building to the edge of the marsh, and the stone spread may have consolidated the wetter side of the path. If this was associated with the building then the argument given above suggests that this pathway was also post-medieval in date.

A ditch (91963), just north of the marsh, running from the south-east to be cut at its north-western end by the culvert, was probably the southern boundary of the field, parcel 89, shown as ploughed on the 1769 map (figure 117). Within this field and possibly just behind the second building shown on the 1769 map was a complex of intercutting elongated pits. Six of these were more or less elongated pits with loose, voided stony fills (90037, 90257, 90262, 90279, 90285/90290 and 90287). The longest of these was 4.8m long, and there was another similar, but isolated feature (90330) further east. The loose, voided nature of the fill suggested a late post-medieval or modern date for these features. Some of these contained post-medieval artefacts but others had few or no finds and two sherds of 13th century pottery (sf156 and 163) were found in separate pits. Slag including a smithing hearth cake and hammerscale (sf600, 5547, 5736, and 5907) were found in many pits, particularly pit 90037, and scattered around the area. The pits seemed to follow the alignment of the culvert but it is more likely that they were aligned on the earlier field boundary.

Parallel and very probably related to these were a longer ditch-like feature (90254) and two short, intercutting trench-like features (90294 and 90310), cut by a pit (90410). Even later disturbance was represented by two hollows containing well-preserved, and therefore recent, animal bone (90304 and 90423).

Just south of this group was an even more complicated group of features. The latest was a large irregular hollow (91639), with a stony fill. This may have been the hollow formed by a tree and it contained 19th century pottery. No dating evidence was recovered from the earlier features. Elongated features 91611 and 91690 were more or less parallel to the features discussed above, although they had silty rather than stony fills. Feature 90421, which contained more stone, continued the line of these features to the north-west. The other features were more or less regular intercutting pits, none of which produced any dating evidence.

The smithing debris from pit 90037 and neighbouring features was formed in a coal-fuelled hearth blown through a ceramic tuyère or a blowhole in a clay wall (Young, current report, vol 3 part XII). The coal used seemed to be of poor quality with shale fragments, possibly because it came from the nearest source on Anglesey, rather than being good quality imported coal. They may have switched from the locally sourced bloomer iron used in earlier smithies on the site to a fined bar (wrought) iron. The smithing hearth slags suggest fairly intensive working, not just intermittent farrier work. The very low quantity of residues recovered argues against the presence of a permanent smithy, but the iron working may represent a specific event with intensive working, possibly for a building project. The obvious building to be associated with this smithy is the Pen y Lôn farmhouse and the smithing may have made nails and other items for the construction of the house.

Bonc Dêg (PRN 13928)

Plates 194 and 195

Bonc Dêg appears to have been a very small farm. In 1769 it was owned by Lord Boston, so no detail appears on the Penrhos Estate map (Penrhos II 772 and 775) (figure 117). Pencil annotation on the map adds Lord Newborough's name and possibly the name of the farm as "Bonk Deg" though this is hard to read. A large scale estate map, probably of 1817 (Penrhos II 778) shows the farmhouse at Bonc Dêg and shows that the larger part of the land had been sold to Lord Newborough. On the 1841 tithe map it is called Penbonc-deg, and Bonc-deg or Bonc Dêg on later maps. The tithe map shows the field north of Lôn Trefignath as being divided into small plots, like gardens. These are also shown on the County Series maps (figure 117) and the field layout remained largely unchanged until at least 1969. The small fields were used for a market garden in the 20th century, according to a local man whose grandfather owned the farm, and it seems likely that this is what they were used for in 1841.

The site of the farmhouse (SH 25549 80870) was not investigated in this phase of the project, although faint earthworks were noted during the assessment. Some of these earthworks may have been the remains of building foundations but they are more likely to have been demolition disturbance. Area L4 was the area closest to Bonc Dêg that was investigated and this contained a large pit (19217) or infilled hollow, measuring 34m in length by a maximum of 10m width, and over 2m in depth (see figure 8). It was filled with concrete and other building rubble and artefacts indicated a mid-twentieth century date, certainly rubble from the demolition of the farm. A large pit with similar rubble was also found on the northern side of Area B2. This demolition apparently occurred during the 1970s. Plate 194 shows that the farmhouse was substantial and plate 195 shows the farm buildings as seen from the lane in 1953.

Features investigated within Area B2 that lay to the west culvert 90066 and north of a shallow boundary ditch 90045 were probably part of the farm of Bonc Dêg (figure 118). This area had complex archaeology with features of different periods intimately mixed together, and few diagnostic artefacts, however the main features were probably post-medieval in date.



Plate 205. Possible pony gin structure

Much of this corner of Bonc Dêg was taken up by a spread of stones containing an arc of slabs set on edge like a kerb (90051) (figure 118 inset, plate 205). The 'kerb' was surrounded and supported by the broad band of stones deposited to a depth of up to 0.4m (90052) (figure 119.1). Inside the 'kerb' was supported by a series of dumped deposits raising the level of the ground internally. The uppermost of these deposits was a yellow clay layer (90129), which seemed to create a level floor, roughly paved with a thin layer of stone (90053), mostly small slabs laid flat. This was built up against two arcs of facing stones (90113 and 90114), laid directly on the underlying made-up ground deposits. Layer 90129 appears to have been a floor surface for what was presumably a circular structure. On the western side the edge of layer 90129 indicated where the circular wall had continued round, but on the eastern side it continued beyond the line of the facing stones. It is likely that there was an entrance to the structure at this side. In this gap were three postholes (90107, 90181, 90226), and traces largely cut away by ditch 90042 suggest there may have been a fourth. The postholes had well-placed, vertical packing stones and, in two cases, flat stones in the base to help support the weight of the posts in fairly soft deposits. The circular structure appeared not to have outer facing stones but had a spread of small stones built up against the back of the facing stones, which were therefore more like revetting stones than the base of a free-standing wall. However, there were further similar flat stones (90214) on the northern margin of the stone spread, which also appeared to be the fragment of a kerb or revetment.

There were no diagnostic finds from this feature and, as it was on the edge of the roundhouse settlement, its date is in some doubt. The interpretation of this feature as post-medieval depends on its relationship to a probable stone-lined culvert (90246). The critical area was confused by later ditches 90045 and 90081 but it seems very likely that this feature was the continuation of one of the main culverts (90522); the two features being separated only by being cut by ditch 90045. Culvert 90246 ran around a pre-existing boulder (90188), though some attempt seems to have been made to remove this, as there was a pit (90247) dug behind it, but the removal had been unsuccessful. This part of the culvert had been backfilled with stone and partly built over and covered by a rough stone surface (90124). The relationships were far from clear but stones 90185, essentially a continuation of 90053, seemed to overlie the fill of the culvert. It appears that the culvert was filled in with stone and the structure relating to kerb 90051 and floor 90129 was built over it. The culvert probably continued directly under floor 90129 but the deposits in this area were so confused that it could not be traced here and a clear relationship with 90129 could not be established. The culvert itself was not well dated but as 90522 it had a good stone lining in places like post-medieval culverts and it cut through the wall 90010 that was part of the roundhouse settlement. A post-medieval date for the culvert is therefore quite likely, although it followed very closely the line of a much earlier ditch.

No artefacts were found in the structure itself, though pieces of a recent iron container were found in an overlying deposit (90185) and post-medieval pottery was recovered while cleaning ploughsoil from over and around the stones of the feature. The structure is therefore likely to be post-medieval in date, but earlier than the 19th century as it was cut by the large culvert 90066. It is possible that this structure was a pony gin or horse mill, though there are some problems with this interpretation. A horse gin at the Scottish National Museum of Rural Life, Wester Kitchside Farm near Glasgow, has a very similar circular feature with facing stones around it, in which the central gin mechanism was housed (plate 206). However if the Parc Cybi feature was the same it should have a central posthole to support the mechanism. This may have been lost to ditch 90042, though some trace of it would be expected to have survived. The pony presumably walked around the stone area outside the kerb 90051, but in this case the kerb would be expected to be more circular and more accurately concentric with the inner circle of the structure. The stone deposit also seems to be a rough surface for walking on, though perhaps this was for drainage and was covered with turf in use. Possibly postholes 90181 and 90226 could have supported the central



Plate 206. A horse gin at the Scottish National Museum of Rural Life, Wester Kitchside Farm near Glasgow

gin mechanism along with matching postholes on the other side, lost to the later ditch, but the function of the larger posthole 90107 is unclear. The circular feature therefore is perhaps likely to be the remains of a pony gin, but this is not certain.

If it was a pony gin there should have been a channel in the ground running from the gin to carry the drive shaft to the machinery being turned. No channel running directly from the structure was found, though again possibly it was destroyed by ditch 90042. There was a gully (91116), 0.2m deep, found to the north of the structure. This cut through earlier deposits and could have been post-medieval in date but with a width of 0.7m it seems too wide for a drive shaft channel. The north-eastern end of this gully was not found, and it was lost to the south, but it seems to have run past two deep, sub-rectangular pits (90320 and 90406). These measured about 1.9m by 0.8m and up to 0.8m deep. They had vertical sides, flat bases and stony fills. Next to these pits were two large stones (90302) and to the north-west was a rough line of stones (90301) and another couple of large stones (90894). This very fragmentary but could be the remains of a small structure, possibly a gorse mill related to the pony gin.

The rough surface (90124) laid over the infilled culvert extended to the west, although partially cut away by ditch 90081. That surface seems to be a continuation of a similar deposit (90168/90239) surviving to the west of ditch 90081. The western cobbling was composed of numerous different patches and layers of cobbling of slightly different sizes and characters, as if repeatedly repaired and replaced. Although it is not possible to closely related these deposits stratigraphically to the structure, 90124 respects the structure and all the stone together would have provided a yard surface for the structure.

Running immediately south-west of the possible pony gin was the foundation of a long, straight wall (90120/90222). This was cut by the culvert (90522/90246) and the stones of the pony gin overlay a parallel wall (90169), so the straight wall pre-dated both the pony gin and the culvert and was demolished before the former was built. Running parallel to wall 90169, but earlier than is as it underlay the cut for the wall, was a narrow drainage gully (90163) (figure 119.3). This was 0.35m wide and survived for about 4m. It was lined along the sides with small stones but the base was not lined and only one stone hinted at possible capping stones. If capped it seems probable that the drain was constructed and covered over and the wall built next to it but both were in use at the same time.



The way that they so closely parallel each other suggests this.

The wall foundation (90120/90222) was mostly composed of large schist stones up to 1.5m in length (plate 207). Many stones spanned the full width of the wall, though in some places two stones were used but there was no real core or faces. In places two or more stones were on top of each other but this did not occur enough to indicate coursing. The north-west end may have been marked by a particularly large boulder (90188), which had been reused as the side of the culvert (90522) rather than move it. However, a disturbed line of stones (90273) did continue the alignment very accurately. These stones were generally less substantial than 90120 but had been considerably disturbed, probably by robbing activity indicated by cut 90881, which exactly followed the line of the proposed continuation of the wall.

To the south-east the wall continued, after being cut by the 19th century culvert

Plate 207. Wall 90222

(90066), and here it was recorded as 90222. This was of similar construction to 90120 with slabs of a similar size, although in places the wall foundation was only a single line of stones. Along the northern side of 90120 were traces of a broad shallow ditch (90789), but this was not present to the north of 90222.

This wall was initially considered to be related to the Iron Age settlement due to structure D having apparently been built against it. Reconsideration of the stratigraphy described above (see Iron Age chapter) showed that it was not necessarily early. The straightness of the wall and the similarity of its alignment to part of culvert 90066 and many features forming part of Pen y Lôn make it appear very likely to be post-medieval in date. This wall probably formed the south-western boundary to the Pen y Lôn farmyard at an early phase of its history. The 1769 estate map (figure 117) shows an indent in the property boundary between Pen y Lôn and Bonc Dêg. This may explain the wall continuing west of culvert 90066, which followed the field boundaries through Pen y Lôn. The indent could indicate that there had been another building south-west of the Pen y Lôn house in its own yard, and wall 90120 formed the northern side of this yard. The wall was then demolished in the 18th century as the boundaries subtly changed. This interpretation suggests the pony gin, that overlay the wall, was built in the early 19th century when the maps show a change in angle of the boundary.

Trefignath Farm

Early Trefignath (PRN 13929)

Figures 98, 120 and 121

The name of the farm has been very variable, including Trefignerth (1624), Trefignedd (1769) and Trefignant (1817). The forms show no logical development, and 1624 is the earliest known reference (Smith 1987). The 1769 map shows two small buildings to the north of the modern farm, in a group of fields known as Trefignedd but part of the Pen-y-Lone land (Penrhos II 772 and 775) (figure 121). By 1817 the name of Trefignant was applied to the land and Pen y Lone was just a cottage on this land ((Penrhos II 803, 804, 778). There was a building, named as Trefignath, in the same location as the recent farm, but the two buildings to the north were still in use. The situation was the same in 1841 and 1853, but by 1889 the whole farm had moved to the southern location; although a very small structure is indicated further north near the railway. The Trefignath Farm buildings, which can be seen on plate 194 in 1953, had been removed by 1971 (OS 10K map), and the site of the farm was occupied by sheep pens until recently.

The early site of the farm is probably immediately east of the development site boundary (SH 25917 80676) (figure 98). An attempt was made to locate the buildings by geophysical survey, during the archaeological evaluation in advance of the A55 road improvements. No clear evidence of the buildings was found, but a circular anomaly, c. 5m in diameter, and an associated linear feature of unknown status, were revealed to the north-east of the burial chamber (Davidson 1996, appendix 2). However, this survey was carried out in 1996 and covered an area, which was too small to interpret clearly. Slight scarps in this field probably define the farmyard. These were surveyed by GAT in 2011 as part of investigations in advance of the proposed Penrhos Leisure Village (Kenney 2012b). Evaluation trenches dug by Wessex Archaeology for a later phase of the project in 2014 cut across the probable



area of the farmyard (Wessex Archaeology 2015). Towards the western end of trench 23 (figure 98) a roughly metallised surface was found and in the adjacent trench 31 was a shallow gully aligned north-west to south-east. These were considered to be part of the Roman trackway, discussed above, but may be more likely to have been part of the remains of the farmyard.

A pair of large gateposts in the field boundary (plate 208) (PRN 81342) probably indicates the entrance to the farmyard, and close to this gateway the excavation on the western side of the wall revealed several features probably associated with the farm (figure 120). A near perfectly circular gully (70491) was found, defining an area measuring 5.0m by 4.5m (plate 209). The gully varied between 0.12 and 0.25m in depth and its sides were sloping with a rounded base (figures 120.1 and 2). It had numerous stones in its fill, though only in patches, not consistently round the ring.

Plate 208. Original gateposts leading into the old Trefignath farmyard



Plate 209. Circular gully 70491, probable hayrick gully

A slight curving gully (70524), only 0.05m deep ran downhill from the northern side of the ring gully. This seemed to be too shallow to drain the much deeper ring gully, as in a roundhouse, but might have taken overflowing water. The curving gully led to a shallow pit (70522), 0.1m deep. The pit had a fairly regular sub-circular shape but an uneven base disturbed by roots. It is possible that these slight features were unrelated to the ring gully and may have been the result of animal burrowing.

A sondage was dug across the middle of the ring gully to test whether there were any central features, possibly even a burial if this was a small barrow ditch (plate 210). No traces of any features were found with only natural silts (70494) in the interior, though the surface of this was quite stony. The ring gully was initially suspected to be the inner drain of a roundhouse but the lack of a clear out-flow or related pits or hearths argues against this. It was small for a ring ditch to a barrow. It is probable that this was an agricultural feature, possibly a gully around a hayrick or similar structure related to the 18th century farm. The only find was a flint flake, which was presumably residual, so there is no confirmation of a late date but its position in relation to the farmstead makes this likely.

Another curving gully (70706) further up the hill slope may have been a similar feature. This was a shallow gully, only 0.09m deep, defining part of a larger circle, possibly about 6.5m in diameter. Near it were two shallow pits (70685 and 70708), measuring 0.17m and 0.26m deep respectively. There was also a probably posthole (70438), 0.32m deep, which contained stones some of which may have been packing stones. The gully 70706 cut the fill of pit 70708, so these were not all contemporary. All the features again lacked datable finds but the gully cut through a ditch (70382) probably associated with the Roman period system. Other small pits and postholes in this area may have been associated with this focus of activity, including an irregular pit (70701), 0.2m deep and three small very shallow pits (70378, 70433 and 70435) no more than 0.15m deep. Further south were two gullies (70623 and



Plate 210. Circular gully 70491 fully excavated with sondage dug in centre to check for possible burials or other features

70631) the latter having capping stones surviving along part of its length.

The 1817 map (figure 121) suggests that field gate probably led directly into what was a paddock or yard behind the house, and the excavated features were probably from outlying activity related to the farm. The absence of finds does not disprove this theory as features relating to the contemporary farmhouse of Pen y Lôn (in Area B2) produced very few diagnostic finds. It appears that material culture of the sort that survives burial was scarce in the small 17th and 18th century farmsteads of this area. Whether the circular and curving gullies were for hayricks or other similar functions they seemed to be appropriate features to be located just outside a farmyard.

Ditched haystacks are not widely reported but they are common in the English Fens and uplands of Scotland, where, with raised stands they are used to ensure the haystack stays dry. Gardiner (2013, 25-26) discusses some of the 700 stack sites or 'fen circles' identified in the English Fens, mainly from aerial photographs. He suggests that many are Roman but some are medieval and, as few have been excavated, they are not well-dated. Most have narrow circular gullies, but some gullies are wider and some are penannular or C-shaped. Occasionally they have a central posthole for a post to support the haystack. Such ring-gullies are not widely reported from north-west Wales but it would appear that the wet climate might make them necessary. Two ring gullies dug near Dolbenmaen were interpreted as haystack gullies. One was narrow with steep sides and stone filled so that it appeared to be a circular drain. It also had a nearly central posthole. The other had a wider ditch and less stone but was interpreted as having the same function largely because of the position of the ring gullies immediately adjacent to a small medieval settlement (Kenney and McNicol 2017). Other similar features scattered over the Parc Cybi site are discussed below.

Trefignath Farm, 19th century (PRN 70620)

Figures 98, 122 and 123

Various editions of the County Series 25 inch map show the location of the farm buildings and small changes from the end of the 19th century into the 20th century (figure 122). The recent farm buildings have been almost entirely removed down to bedrock, with only traces of concrete and other foundations remaining where the farm buildings stood. The farmhouse itself (located at SH 25789 80657) was represented by a large stone threshold slab leading to an internal concrete floor (70365) (plate 211, figures 98 and 123). Another pad of concrete (70366) may have represented a wall foundation. To the north-east were fragmentary traces of activity in the form of small postholes and a slight gully. More substantial was a group of foundation slots for a small building (70357, 70359, 70361 and 70363). There were also the remains of a midden (70356) full of late 19th century pottery, iron and glass. No structure shown on the maps corresponds to the foundation slots, but these would have been in a corner of a walled garden and it is possible that they were the base for a glasshouse. To the north-west was an extensive area covered by demolition rubble (70367) that had been bulldozed down the slope. This rubble was not removed.

Farmhouse



In a better state of preservation were structures around the rocky knoll immediately to the east of the farmhouse (figure 123). The knoll was mostly enclosed by stone walls (03037 and 03041). These were mortared stone walls up to 1.8m high that generally revetted the knoll rather than being freestanding walls. On the western side of the knoll were the remains of small structures. One structure (03038) was square and built of stone with a concrete roof (plate 212). This structure measured 1.7m by 1.6m and was 1.2m high. It had a stone floor and there appeared to be slate tiles preserved under the concrete roof, suggesting a previous slate roof. It opened to the north-west and the opening was originally the full height of the structure but had mostly been filled in leaving only a low opening with long thin slate slabs as a lintel. The blocking of the original opening was crudely rendered but some bricks

Plate 211. Large stone threshold slab leading to an internal concrete floor (70365) leading into the Trefignath Farmhouse



*Plate 212. Small structure (03038)
with concrete roof*



Plate 213. Plastered wall in structure 03039



Plate 214. Structure 03040



*Plate 215. Reverse Z-shaped wall
(03042)*

were partially exposed so much of the blocking may have been with brick.

Further north were the remains of another building. A section of wall, 1.6m long and 0.58m wide (03039), appeared to be the gable end of a structure built against the outcropping bedrock of the knoll. This had rendering and white plaster surviving on the internal face. A small recessed niche was situated to the eastern side of the visible face (plate 213). This had been part of a larger structure, which had been dug into the hillside, but most of this was represented by a rectangular hollow largely full of rubble. Large slates were found nearby suggest that this structure was originally roofed with slate. To the south this was another small structure similar to 03038. This structure (03040) had stone walls and a stone roof and was 1.2m high (plate 214).

Structures 03039 and 03040 are shown on the 1889 and 1900 25 inch maps. They must have been small sheds, presumably for tool or root storage. The concrete roofed structure (03038) was not shown on the maps, probably because it was small and virtually obscured within the side of the rocky knoll. While originally it was a shed like 03040, it had been adapted to another purpose and was probably a dog kennel or goose shed.

On the top of the knoll was a stone-built structure with a reverse Z-shaped plan (03042) (plate 215). This was well-built with lime mortar, unlike the drystone construction of 03039 and 03040, but had no floor layers. It may have been a double lean-to structure as slates scattered around it suggested that it might have been roofed. However, no remains of the lean-to survived and the floor must have been of earth. Quantities of late 19th century or early 20th century pottery and other debris, including butchered cattle bones, were found around the structure, which was not shown on any maps.

To the south of the knoll a pond in a walled enclosure still remains undisturbed by the development, although silted up and over grown.

The scarcity of remains of the farmhouse was due to its complete demolition in the 1970s. Much of the material from the house and outbuildings was levelled over the adjacent area, in filling some of the undulations in the land. The farmyard to the south of the house had been constructed on a concrete pad that investigation showed to rest on a stone make-up layer and that the ground had been at least partially levelled in preparation. The external wall of the range of barns on the south-western side of the farmyard still survived, until the present works, although converted into a field wall. The eastern (internal) side of this was cement rendered, and some stones projected where they had been keyed into perpendicular walls.

Merddyn Poeth (PRN 36509)

Figures 8, 124 and 125

In 1769 the land was owned by a Mrs Morris and, as it was not part of the Penrhos Estate, the farmhouse is not shown on the map. The property is shown as an odd T-shape running between Tyddyn Pioden lands, and a later pencil annotation marks it as “Lady Stanley’s” (Penrhos II 772), and another estate map of 1805 showed that Lady Stanley had acquired the land by that date (Penrhos III 208) (figure 124). This map shows the house and adjacent yard, which are also shown on a large scale map dating to about 1817 (Penrhos II 778), and on other 1817 maps (Penrhos II 803). These show that the buildings surviving until recently were in the same location as those on the earliest map evidence at SH 25077 81021. The field layout was also similar to recent times. The maps show that the southern extension to Merddyn Poeth was included with Tyddyn Pioden land by 1817 and Merddyn Poeth was just a house with a few paddocks. The tithe map shows its land divided into six small fields or paddocks.

The buildings were demolished in 2006 in advance of the present project and the remains were examined during the current excavations. Very little of the main house survived to be investigated but foundations of outbuildings to the north-east were recorded (20001, 20006, 21004) (plate 216, figure 125). These had walls of local schist and the foundations at least were clay-bonded, rather than mortared. However, apart from 20006 these buildings were built after 1924 as they do not appear on the 1924 County Series map. Building 21004 had a concrete floor and 20006 had both a slab floor and a brick floor. A square structure built of stone and brick (21001) was found within the area of another recent building that had replaced a smaller one on the 1924 map. Structure 21001 could have been a cellar, but it was suggested that it might have been a cesspit as a pipe led into it from an adjacent slab surface (21002), possibly the location of a toilet. A narrow stone building had stood to the south-east (18042). This was probably a garden shed or small barn and was adjacent to a small enclosure marked as an orchard on the maps. There was no evidence of any buildings earlier than those shown on the County Series maps, so it appeared that any traces of the earlier farmhouse would have lain under the recent house and had been destroyed when that was built in the late 19th century.



Plate 216. Remains of Merddyn Poeth house



Plate 217. Merddyn Poeth's well superstructure



Plate 218. View down Merddyn Poeth's well

To the north-east of the house was a stone-built 'walk-in' well (18030) which first appears on the 2nd edition OS map, and is discussed below. Just north of the house was a small brick structure set into the ground (05021) on the line of what appeared to be a ditch. A pump is marked in this location on the County Series maps, and the brick structure must have housed the pump mechanism. The ditch was probably a culvert carrying a stream, from which the pump drew water. There was another well (05023) to the south-west but this had a modern brick superstructure and appeared more like a decorative wishing well than a practical water source (plates 217 and 218).

The field system

Figure 8

Many elements of the field system have remained fairly constant since the early 19th century, although some simplifying and straightening of boundaries occurred in the late 19th century. However the 18th century maps show quite different fields and there are hints on the maps of earlier systems. On the ground the site was covered with numerous ditches and furrows, many of which could be identified on the later maps and a few on the 18th century maps but several followed completely different alignments. The probable Roman period field system has been described above, and it is possible that some of the features described below originated in this period. As there was very little dating evidence it is difficult to attribute many of the ditches to a period but some fields appeared to be on different alignments to both the Roman and the late post-medieval system and these are assumed at present to belong to an intermediary period.

Pre-map evidence field boundaries

Area K (figure 126)

Area K7 had the most complete section of a pre-map field system (PRN 31608). This enclosed the area to the north-west of the rounded hill on which the long cist cemetery was located (centred on SH 25648 80868). The base of the hill was enclosed by a ditch, which started as a narrow ditch (80169) running along the western side following the contour of the hill near to its base. At its north-eastern end this ditch was cut by a wider and deeper ditch (80164), which followed the same course. This ditch had a rounded south-western terminus and a deposit of stones (80239) and a large schist block, 1m long, in its base.

At its north-eastern end ditch 80164 turned sharply towards the east, heading upslope slightly for about 7m as it followed the changed orientation of the hillside. At this corner on the uphill side of the ditch was a circular pit (80179), approximately 1.30m in diameter and 0.5m deep. It was filled with large cobbles (80170), which might have been disturbed packing material for a post.

After the corner the ditch then ran downhill, now recorded as (80176), and curved slightly as it ran down the eastern side of the hill towards the marsh. It skirted the southern edge of the roundhouses (80248) and (80249), and was recorded in section as (80298). It was seen to cut through a sequence of relict ploughsoil layers and colluvial deposits and was originally about 0.55m deep, but it did not penetrate into the natural and so it was difficult to follow in plan further east. However, it seems to have joined ditch 80252, a long, straight ditch, which ran for a distance of about 50m, skirting the north-western edge of the marsh area before it disappeared. At its south-western end a short straight length of walling about 11m long survived within this ditch. The wall (80253) was generally around 1.1m wide and up to a metre high, and constructed within a shallow and uneven construction trench (80310), that was apparently continuation of the ditch. The wall was composed of some large, sub-angular blocks of schist, up to 1m in length. Most of these large stones appeared to be set vertically on their edges, the largest, at the eastern end of the wall stood a metre high. The space between the large stones and the construction cut had been packed with a number of smaller schist cobbles (80312). The wall faded out at the base of the hill and, although it had been robbed out, it is possible that it never continued up the steep eastern side of the hill.

The ditch around the base of the hill may have continued (figure 48). An 18m length of shallow ditch (23019/23021) survived on the south-eastern side of the hill. A shorter length of ditch (23013/23015/23017) running south, almost at a right angle, may have indicated another boundary radiating from the hill, but it is a very small fragment.

From the point at which ditch 80164 turned east another ditch (80174) ran north-west directly down the slope (figure 126). This terminated abruptly in a rounded end about 1.6m short of the culvert (80189). It was preceded on much the same line by a shallow straight gully (80193), which did reach the culvert and was cut by it. Running perpendicularly from the south-eastern end of 80193 was ditch (80171), which ran for approximately 47m in a north-easterly direction, continuing beyond the sewerage main as ditch 80436.

On the west side of culvert 80189 a straight ditch (80153) ran parallel to 80169 and was probably related to the same field system. A shallow perpendicular gully (80148) also did not relate to the later field boundaries and could fit with this system. The south-west to north-east aligned ditches in this area defined a narrow field and this seems to be continued in an odd projection that existed in the north-western corner of the modern field until the A55 was built. This field resembles an enclose strip or quilled, an enclosed remnant of a medieval open field system.

Relatively few finds were recovered from these ditches; a sherd of 19th century Buckley Ware and a sherd of a coarse earthen-ware jar (sf4250) with a lead glaze probably dating to the late 17th or 18th century were found in ditch 80164. The northern end of ditch 80171 contained a piece of agricultural ironwork (sf5407) and a sherd of post-medieval black glazed Ware pottery in its upper fill. All these finds from the ditch fills might give little indication of the original date of the ditches. The pit (80179) at the corner of ditch 80164 contained a small elongated stone with polish on two faces (sf4229), similar to items from the roundhouse settlement but a chronologically undiagnostic object.

Other areas

The rounded hill in Area F also had ditches around its base (PRN 31609, centred on SH 25406 80730, figure 127). The estate maps show that hill was enclosed in the late 18th and early 19th century by ditches 21133, 21161 and 21177, with 21186 running parallel to the western part of this on its western side. At the very base of the western side of the hill was ditch 21101. At its north-eastern end it turned sharply east and continued over the hill as ditch 21091, and at its south-western end it turned west and joined ditch 21177. Parallel to ditch 21091, and probably also running into ditch 21101, was another shallow ditch (21089). The way that ditch 21101 joined one of the 18th/19th century ditches and was aligned on them suggests an earlier 18th century date for these boundaries. They are not shown on the estate maps so were presumably disused by the first estate map was drawn up.

However ditch 21101 cut an earlier ditch (21099/21119) running along much the same line. This may indicate an earlier origin for parts of the field system, but there is no evidence to suggest that it was much earlier. A large hollow (21108) cut the north-eastern end of 21099/21119 and its continuation was confused by a deposit of colluvium left in the natural contours of the hill after stripping this area. A short surviving section of ditch on the north-eastern side of the hill (21163) may have been a continuation of this ditch. Hollow 21108 may have been a large tree-throw hole and there were other similar smaller hollows in this area, some almost certainly tree-throw holes. A couple of the deeper and more regular hollows (25010 and 25020) may have been pits but they were uninformative.

Ditch 21101 produced a sherd of what was initially thought to be a Roman mortarium (sf 1093), but which proved to be the rim of a large North Devon Gravel Tempered pan dating to the 18th-early 19th century. A slender tapering copper alloy bar (sf 1103) came from the upper fill of ditch 21168, probably also late post-medieval, and a sherd of 19th century pottery was recovered from ditch 21089. There is therefore no evidence that the earlier ditches were Roman or medieval.

The southern part of the site also seems to preserve long stretches of earlier boundaries (PRN 31610, centred on SH 25806 80437, figure 8). A pair of parallel ditches 18047 and 19028 curved across the southern part of Area H. They probably crossed a rocky outcrop and joined up with the similar ditches 50428 and 50408. These ditch probably originally joined with two straight south-west to north-east aligned parallel ditches (50385 and 50388). These must have crossed the more prominent rocky outcrop just south of the Early Neolithic building and were recorded again as 02067 and 19014. The southern part of this enclosure has an additional, possibly earlier straight pair of ditches (18018 and 18049). Ditch 50456 ran off this enclosure to the south-west and ditch 50424/50440 may represent a boundary leading to the north-west. There seems to have been a small enclosure (50394) where this probably met the double ditches. It is assumed that the double ditches, which were consistently about 1.5m apart, were on either side of an earth bank or a hedge. The boundaries probably used the rocky outcrops where possible to remove these from the main part of the field. The finds from these features were consistently late post-medieval, but they are not shown on any of the maps.

In Area D2 (PRN 31611, SH 25244 80845, figure 8) ditches defined a narrow field and this is shown on the 1769 map and is marked as owned by the Owens. Ditches in Area E (60109 and 31351) clearly show that this had continued further north-east than shown on the map. A slight hint in the map boundaries and a ditch (05037) in Area B1 on the same alignment suggest that this field might have continued much further. This seems to have been another enclosed quillet.

Interpretation

In Area K7 ditch 80298 cut through the colluvium sealing the roundhouses, suggesting some considerable time had passed between the use of the roundhouses and the field system. It is possible that the ditches enclosing the hill in Area K7 were originally related to the cemetery on top, but there is no evidence that the boundaries were so early. The section of wall (80253) on the north-eastern side, resembled megalithic walls common in upland areas with a probable Late Iron Age or Roman origin, but it was quite different to the walls of the trackway and field system described above with a more secure Roman date. It is likely that this style of wall was used over a very wide time period. A similar wall (31347) was found in Area E. This was composed of large boulders set on edge in a line and supported by smaller stones, which formed a rough bank, much like 80253. The position of this suggested that it was part of the southern boundary of the Tyddyn Pioden farmyard. The only other dating evidence for these earlier field boundaries, apart from their absence from the historic maps, is the single late 17th or 18th century sherd from ditch 80164 in Area K7.

Hints of narrow enclosures, possibly enclosed strips, were seen in Areas D/E, F and K. These could indicate traces of an open field system. The field immediately west of Bonc Dêg Farm also may have been a group of enclosed strips, and the Owens' parcel of land in Areas D and E is a clear example. The late 18th century estate maps indicate ridges in ploughed fields, but these are all small rectangular fields and give little indication that they are the remains of earlier strips in open fields.

Without further evidence it should perhaps be concluded that the pre-map field system was probably of 17th and 18th century date with some possible traces of the medieval field system preserved. However the late 18th century estate maps shows much of the southern part of the site as pasture and waste with few boundaries and only small areas of arable, such as at Pen y Lôn. It gives the impression of an area only just being improved, not one previously enclosed. The relationship with the roundhouses in Area K7 perhaps rules out a Roman date for the K7 field system, although colluvial soil movement from the hillock might have caused a rapid build-up of soil over the abandoned roundhouses. The date of the pre-map field system is therefore uncertain.

Eighteenth and nineteenth century field systems

Figure 8

The earliest estate maps show the late eighteenth century field system (PRN 13925) and this could be detected on the ground in many places. The boundaries around Pen y Lôn could generally be discerned. Ditch 06109 (figure 115) seems to have formed the southern and eastern of one of Tyddyn Pioden's fields (parcel F2) (figure 107). The western boundary of this field was reused when the field was regularised in the 19th century but the other boundary ditches were backfilled and a large stone drain was inserted in the base of the southern ditch before backfilling. The map (figure 107) shows north-west to south-east aligned ridges in parcel F2. Although these were not seen on the ground furrows on the same alignment were seen in the next field (F4), and probably date from this period, although the map does not show this field as being ploughed in 1769.

The western boundary of Bonc Dêg (figure 117) was probably represented by a steep-side ditch (05044/05051/05059) in Area B1 (figure 83). This was up to 0.4m deep cut a shallower ditch (05049/09030). Marine mollusc shells were found in the northern ends of both ditches and in an adjacent pit 05053.

Running perpendicularly from these ditches to the west was a shallow gully (10025/10027), which was heavily truncated but probably turned north to join a gully (10021/10023) running parallel to the ditches (figure 83). Where best preserved this was up to 0.7m wide and 0.54m deep, but along most of its length was little more than 0.1m deep. The fill of this gully was very similar to the ploughsoil, and it is assumed that it was a small enclosure contemporary with the north-south ditches.

The eastern boundary of this field was also seen on the ground. The distinctive shape created where the ditch (90008) met the wall (90005) in Area B2 (figure 58) is recognisable on the 1887 OS map, and on the 1817 and 1769 estate maps (figure 117). This was the quillet in Bonc Dêg owned by Lord Boston. The shape of this plot suggests an enclosed group of strips that once belonged to a medieval open field. There are other small hints in the map evidence of similar strips but surprisingly little evidence on the ground for medieval open fields.

On the 1769 maps (figure 117) the boundary between Bonc Dêg and Pen y Lôn has squared insets suggestive of being marked around building enclosures. The possible building enclosure immediately south-west of the Pen y Lôn house has been discussed above and no evidence of a post-medieval building was found there. The kink further south-west seems to relate to an area in B2 where there was little archaeology in the internal corner created

by walls 90010 and 90005. Structure 94016, already proposed as a possible granary to the Iron Age settlement, would perhaps have been in the corner of this area, possibly increasing the chance of this being post-medieval in date, but none of the maps consulted show a building in this location, so if it was post-medieval it would pre-date the late 18th century.

A cable trench dug on the northern boundary of the site, beyond K8 (figure 8), revealed the traces of what might have been a stone structure at the corner of a boundary shown on the 1769 map. To the south-east of this were also remains of a possible trackway (Cooke 2010).

A major change took place at the start of the 19th century when many field boundaries were altered or newly created, although this was done within the framework of the pre-existing field system. The Penrhos estate seems to have bought plots from small neighbouring landowners to consolidate their holdings. Comparing the 1769 and 1817 maps (figures 107 and 109) Mr Owens seems to have been bought out and his narrow field incorporated into Tyddyn Pioden land. The field completely disappears in a redesign of the field boundaries, being included within parcels 304 and 306 (figure 109). However, ditches found during excavation in Areas D2 and D3 clearly defined the original limits of this field, with the later track to Tyddyn Pioden cutting through the middle (figure 8).

A boundary running across Area K and shown on both the 18th and early 19th century maps had a new wall (80280) built along it in the later 19th century (figure 126). This can be dated because it was built over the infilled culvert (80189) discussed below. Wall 90073 in Area B2 (figure 118) was essentially part of this same farm boundary where it continued south of the road.

Many of the fields were subdivided and regularised in the later 19th century to give the layout that largely continued until the boundaries were removed for the current development.

Culverts and drainage

The mid-19th century saw significant drainage projects to improve the land, but some culverts pre-dated this activity and probably represent drainage from farmyards.

Culvert 90522 (Area B2)

Probably the earliest post-medieval feature on the site ran north-north-east to south-south-west across all of Areas B2 and F1 (from SH 25568 80815 to SH 25499 80737, see figure 58). This was a stone-built culvert (90522, PRN 31612), and where best preserved this had large stone slabs forming the sides but generally had no base slabs (plate 219). It certainly ran from near the possible pony gin (see above), which it definitely pre-dated and may have started further north but it became shallow and difficult to identify to the north. At the southern end it was either never lined or the stones had been removed and it issued towards the edge of the marsh. Although quite straight in places, it was sinuous at its southern end and for much of its course seems to have followed the line of the earlier ditch (91445/92799), cutting away all evidence of the early ditch in places. Presumably, there was a linear depression or slight watercourse along the route of the ditch, which was formalised into the culvert.



Plate 219. Section through Culvert 90522

At its northern end the culvert had been infilled with stone so that later activities could take place over the top. Elsewhere, although in some places the lining had been disturbed, the culvert had infilled with silt. The culvert narrowed where it cut through the main wall (90010/91802) through the roundhouse settlement (figure 62.3).

Towards the northern end of the culvert two sherds of pottery, one late 17th to early 18th century and one late 18th to early 19th century, and the remains of a tin can were found. This was in the area where the culvert had been infilled prior to the construction of the pony gin, so it is probable that these finds were introduced at that time. Where there was no disturbance no other artefacts were found in the culvert and no charcoal for dating, although any present would have been of very uncertain provenance. The culvert clearly post-dated the Iron Age and pre-dated some post-medieval activity. Without dating evidence it is difficult to identify other features that might be contemporary with this culvert. The only similar feature on the site was a stone-lined culvert (19059) running through Area K5 (see figure 89.2 for section). This was seen in Area K2 and was picked up in the evaluation trenches in K5 (figures 88 and 89). Although it follows a similar alignment to 90522 the two culverts could not have been part of the same feature as 90522 flowed south-west and 19059 must have flowed north-east. However, both seem to have been related to Bonc Dêg Farm. Culvert 19059 may have drained the farmyard but 90522 seems to have drained a corner of the Bonc Dêg property with little clear evidence of what might have been happening here to require such a well-constructed culvert.

19th century culverts

The main phase of culvert building occurred in the mid-19th century and was accompanied with the creation of walk-in wells to access the water.

A large linear feature (90066, PRN 31613) doglegged across Area B2 from south to north (from SH 25574 80735, figure 58). This was about 4m wide, and contained late pottery in its upper fills. Where sectioned it was shown to be over 1.2m deep with a well-built stone culvert in the base, which still had running water through it when investigated (plate 220). The culvert had large capstones up to 0.7m in length and smaller stones forming drystone sides. The base was not exposed, but the culvert was at least 0.5m deep. A vigorous flow of water drained the marsh in Areas F and G. The trench had immediately been back filled once the construction of the culvert was complete, so it was never an open drain.

The large scale 1817 map (Penrhos II 778) (figure 117) has a blue pencil line running along the boundaries within Pen y Lôn then running directly across the field to the marsh. This may indicate that an open ditch was replaced by the culvert, but it could be the proposed route of the culvert itself.

The culvert continued to the north under Lôn Trefignath into Area K7, where it was recorded as cut 80189 (figure 126). From the south-western corner of this area it ran along and down a shallow, north-east-south-west orientated valley in a virtually straight line for about 66m. It then turned to follow the valley as it heads north-north-east to south-south-west for a distance of approximately 38m before disappearing into the baulk at the northern edge of the excavated area (at SH 25643 80919). It continued beyond the development area and exited next to the A55 (Glynne Morris pers. comm., former estate manager, Tŷ Mawr Estate). In Area K7 the



Plate 220. Water still running in culvert 90066



Plate 221. Stone-built well (80157) with steps leading into it

culvert was recorded as (21031) and (80189). It was generally about 3m wide but its depth in this area was not established.

The culvert flowed from the marsh northwards, draining the marsh. To maintain the flow the trench for the culvert must have been over 2m deep where it crossed the slight ridge on which the lane runs. This would have been a good supply of water and in the south-western corner of Area K7 a stone-built well (80157, PRN 31614) had been constructed to draw water from the culvert (21031/80189). Oriented west-north-west to east-south-east, it had been built almost perpendicularly to the north-east-south-west line of the culvert on its north-western side (figure 128). The well was rectangular in plan with a semi-circular south-eastern end, 3.64m long, up to 1.51m wide and approximately 2.00m deep. It was entered from the west-north-west where

a series of 8 steps led down from ground level into a short, water-filled, apsidal chamber (plate 221). The steps were constructed of schist slabs, and the walls were of dry stone construction. The lower five courses of the side walls consisted of vertically set stones, with upper courses formed from horizontally laid slabs, with coping stones set vertically. The east-south-east end wall was constructed entirely from vertically set stones. At the south-east end larger slabs had been laid flat on top of the side and apsidal walls to create a roof over the water chamber.

Two shallow linear hollows (18071) and (18069), up to 0.36m deep, ran to the well steps. They started from the steps as a single hollow then diverged. It seems likely that they were paths worn away by people accessing the well from Lôn Trefnath. Each appears to have been formed by traffic travelling in different directions; hollow 18071 leading north onto the lane in the direction of the Bonc Dêg farmhouse, whilst hollow 18069 turns to head south as if to join the lane further east. Near the well were three circular pits (20074, 21026, and 21029). These were up to 0.37m deep and all originally had vertical sides, though some collapse had occurred at the base of the sides, possibly due to standing water. Pit 21029 cut through the fill of 21026. The fills were quite peaty and could have built up in water or a wet environment. There was some window glass in the base of cut 21029 but no other finds. It is suggested that these were earlier pits to obtain water in this damp area before the well was constructed, although they do not seem deep enough in present conditions. An iron water pipe cut across the top of 20074, and although its end was not found, it probably ran from the well taking water to the farm in the later phases of use.

In Area D a large drainage ditch (60009) running north through D2 continued into D3 and seems to have run into a major culvert (60175), from which water could be drawn using a well (60087). This well (PRN 13927, see figure 8 for location) was similar to that in K7. It was well-built of dry-stone walling composed of the local schist stone, with steps leading down to water level and the sides revetted with walling (plate 222). The deeper end of the well was roofed over with large slabs. A similar well (18030) was found in Area A (plate 223), to the north-east of Merddyn Poeth (PRN 31615). This well seemed not to have a large culvert associated with it but was probably fed by the extensive system of land drains in this area.



Plate 222. Well 60087 in Area D3



Plate 223. Well 18030 near Merddyn Poeth

The culvert 90066 almost certainly followed the boundary shown on the 1817 maps between parcels 87 and 88 (figure 117). The fields were regularised and the small paddock (parcel 87) lost by 1841 (figure 110). The boundary entirely disappears on the 1887 OS map (figure 111) and the drain within the marsh in Area G was constructed by this date, emptying to the north into the culvert. Culvert was therefore certainly constructed by 1887 (when the map was surveyed) and was probably constructed by 1841. A construction of this size must have been built by the Penrhos Estate as part of an extensive redevelopment of the drainage system across the landscape. The culvert in Area D was presumably built as part of the same improvement works and at about the same date.

The three wells were scattered over the site, all relatively close to farmhouses, which they presumably served. The well in Area A is behind the house of Merddyn Poeth, that in D3 is half way between the present location of Tyddyn Pioden and its early 19th century site, and that in K7 is just across the road from the site of the farm of Bonc Dêg. The map evidence provides the most accurate dating for these structures. The wells in Area A and D3 are not shown on the First Edition OS map surveyed in 1887 but are on the Second Edition map, published 1900. The well in Area K7 is not shown on either map but its similarity to the other two strongly suggests a similar date of construction. This well might have been constructed at the same time as the culvert, which would make it the earliest of the three, but it is probable that it was inserted later, and all three were constructed around the same time.

Small enclosures

Across the site were several small enclosures defined by narrow, shallow gullies. The circular gully (70491) and nearby gully arc (70706) have been described above as related to the 18th century site of Trefignath Farm (see figure 120), but most other examples were not close to the sites of farms.

In Area E on the southern slope of the gravel ridge (SH 25292 80723), leading down to marshy land were two small enclosures (PRN 31618) (see figure 127 for location). Feature 31579 was roughly sub-rectangular (plate 224) and aligned nearly east-west along the contours. Feature 31529 was sub-rectangular in plan with rounded corners (plate 225) and aligned north-east to south-west across the contours (figure 129). Neither was terraced into the slope. Feature 31579 was composed of two gullies no more than 0.4m wide. The southern gully (31567) was about 0.15m deep, while the northern gully (31575) was no more than 0.1m deep. Both gullies curved inwards at their western ends, though the end of 31567 was cut by a small pit (31578). Feature 31579 enclosed an area measuring 5.5m by 3.4m and was open at each narrow end, whereas feature 31529 measured 3.9m by 2.2m internally and had no gap in the surrounding gully, which was about 0.25m deep. The fill of 31579 contained very occasional charcoal fragments, but no finds, however a hollow (31578) cut into the terminus of its southern gully contained 19th and 20th century pottery. Enclosure (31529) produced no finds, and neither feature had evidence of postholes or any structural use of the gullies.

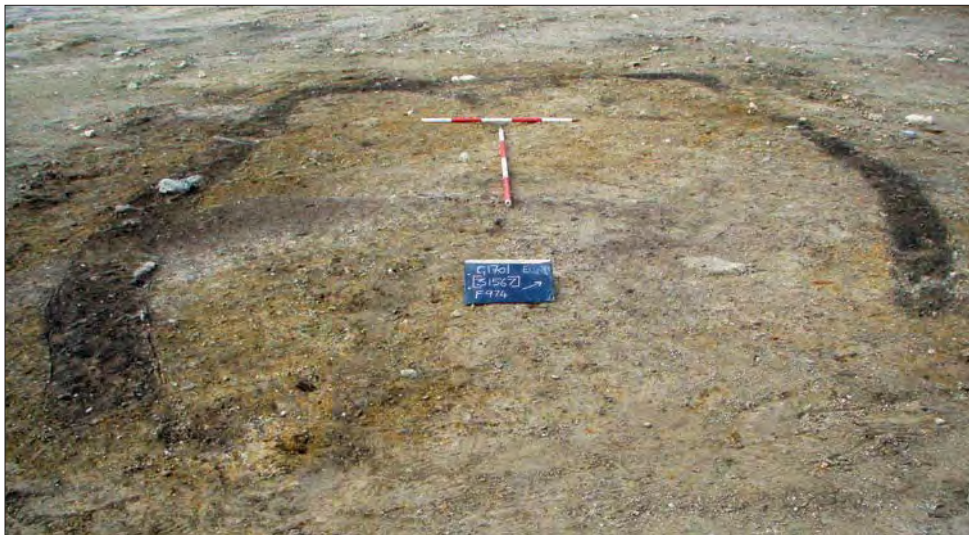


Plate 224.
Enclosure 31579

In Area K7 a C-shaped gully (80162, PRN 31619), forming an arc approximately 11.8m diameter, about 10m internally (plate 226), cut through one of the pre-map field system ditches (80169) (figure 126). The gully was up to 0.40m deep and 0.7m wide with a rounded V-shaped profile. No artefacts were recovered from its fill.

In Area D3 (see figure 8 for locations) was a narrow, shallow gully (60186, PRN 31620) defining a sub-rectangular enclosure measuring 6.5m by 5.3m externally (plate 227), and a C-shaped enclosure (60079, PRN 31621) measuring 5.2m by 3.5m, possibly originally oval (figure 130). Gully 60186 was 0.14m deep but 60079 was only 0.07m deep, though they must have been truncated. They contained coal fragments within their fills, but no artefacts. In the western corner of Area D3 was a larger ditched enclosure measuring approximately 20m by 10m (PRN 31622) (figure 130). The ditch (60204/60221) was up to 0.25m deep and defined three sides of a rectangle (plate 228). The fourth side may have been formed by a narrow, shallow gully (60219), no more than 0.1m deep, but this was on a slightly different orientation to the rest of the enclosure and may have been an unrelated drain. No finds were recovered from the fill of the ditches apart from a fragment of modern drain pipe from the north-east segment.

Interpretation

A consideration of small enclosures at Parc Cybi must include the circular gully (70491) (figure 120) at the earlier site of Trefignath Farm, the circular gullies at Tyddyn Pioden (figure 116) and the circular gully recut round the probable Bronze Age barrow in Area M (figure 44), as well as the features described above scattered amongst the remains of 19th century and earlier field boundaries. The small oval or sub-rectangular enclosures show no terracing even when on fairly steep slopes and have no outlets to the gullies as might be expected for drains. However, it is assumed that they had some drainage function and defined storage areas in the fields. Unlike most of the ring



Plate 225. Enclosure 31529

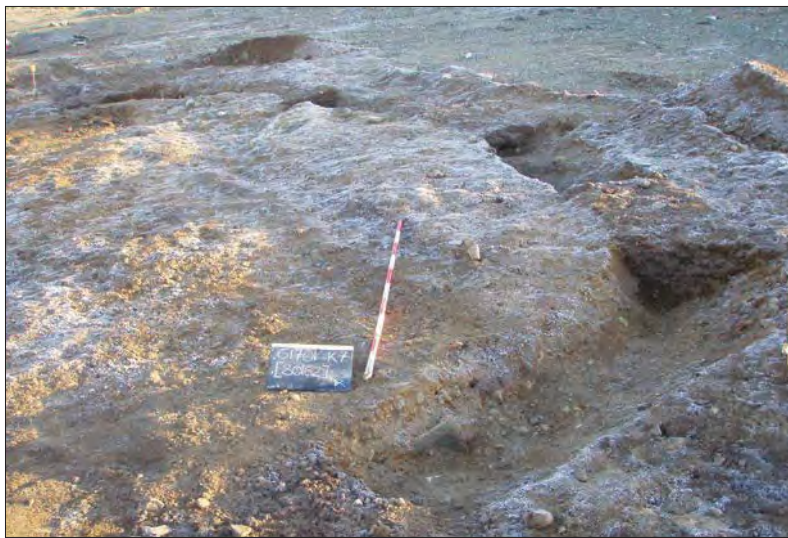


Plate 226. Enclosure 80162



Plate 227. Part of enclosure 60186



Plate 228. Enclosure 60204/60221

gullies the recut around the barrow was stone-filled, making it more clearly a drainage feature (PRN 31623). In that case a drain around a raised platform created from the remains of the barrow can be imagined, which would be suited for the storage of hay. There is no evidence that the other gullies surrounded raised platforms but they might also have surrounded hayricks. Hayricks are prone to catching fire; if incorrectly constructed they can spontaneously combust due to heat generated by bacteria and fungi in damp conditions. The encircling gully would allow the area below the hayrick to drain freely preventing the base becoming damp. However, hayricks are often supported by a central post and no postholes were found in any of these features.

The two features in Area E were located on a dry area close to the peat in the marshy hollow and their gullies may have drained peat stacks. It is more usual to stack peat on or immediately next to the marsh from which it is cut but drying may have been faster a little way up the hill slope. Raised peat stacks built of stone are common in the uplands, usually position on dry ground at the edge of peat bogs (Kenney 2014, 19). It might be speculated that the orientation of these features was related to the direction of the wind when they were constructed; from either the west or south-west. Feature 31529 was similar to a ditched enclosure found near Cefn Cwmwd, Anglesey during work in advance of the A55 (Maynard 2012, 126). This feature (structure F3005) was longer than 31529, at 4.6m internally but about the same width at 2.2 to 2.0m. It was also sub-rectangular with rounded corners, defined by a ditch and lacked an entrance. Structure F3005 was also located on dry ground close to a wet area. Unfortunately, there was no dating evidence from that feature and, as there was a burnt mound 25m away, it was assumed that the two might be related. However, there was no reason to connect Structure F3005 to the burnt mound and it is likely to have been a late feature. This site does not provide much more information to interpret the use of these small enclosures but its location does support the suggestion that they may have been used for peat drying.

The larger features such as the gully in Area K7 and especially the rectangular enclosure in the corner of Area D3 might have been small livestock enclosures for constricting animals for inspection and treatment. However, in this case a bank with a stockade on the top must be postulated, as the ditches alone would not have retained the livestock.

Many of these features seem to have been in the middle of fields, although there were ring gullies near Trefignath Farm and Tyddyn Pioden. Feature 60079 cut the ditches of one of the narrow fields in Area E, dating it to the late 18th century at the earliest. The rectangular enclosure (60204/60221) fits better in the corner of the modern field than with previous field layouts and presumably dated from at least the late 19th century. Other features were cut by field boundary ditches and the relationship of the circular gullies in Tyddyn Pioden farmyard to other features there suggests they dated to before the mid 18th century.

Other post-medieval features

In Area D3 numerous pits were dug in the corner of a field used from the 18th century onwards (PRN 31624). These were dug into boulder clay and may have been quarry pits. They could have been related to the construction or repair of the Tyddyn Pioden house, which appears to have been largely a cob building.

Pits were found towards the edges of fields elsewhere on site. Some may have been to bury stones below the level of the plough but others contained degraded animal bones, and were clearly to dispose of dead stock. None of these were investigated in detail because of the risks of what might be quite recent animal burials.

Within Area M was a large, roughly oval hollow (19053, PRN 31625) measuring about 42m by 26m and up to 1.5m deep in the middle. This had gradually sloping sides and a relatively flat base. The fill was similar to the ploughsoil but contained numerous glass bottles and other rubbish. The area appears enclosed, possibly by a wall on the 1817 estate map, but the enclosure had gone by the First Edition OS map was surveyed. A lack of waterborne silts in inspected sections suggested that this was not a pond and it may have been a gravel quarry. However, during the assessment of the area it was thought to be possibly a dew pond, though no standing water was seen in it. The enclosure of this feature in the early 19th century probably indicates that it was in use then and the wall was to prevent animals falling into the quarry.

In Area E a group of three outlying pits (31356, 31359, and 31364) were located approximately 32m to the north-west of the Tyddyn Pioden farmstead. These features (PRN 31626) are as yet undated but they have been provisionally assigned to the post-medieval period. The features were rectangular in plan with rounded ends ranging between 2.6m and 3.0m in length and 1.1m and 1.2m in width. They survived to depths ranging from 0.4m

to 0.6m. They were most similar to the two pits in the northern part of Area B2, also attributed to a post-medieval date and possibly associated with culvert 90522.

A scatter of features was identified lying to the west of the cist cemetery in Area M4. A small circular posthole (40152), 0.4m in diameter and 0.65m deep contained numerous fragments of animal bone, horn and horn membrane (sf4017, sf5838, sf5414, sf5465, sf5466, sf5763, sf5773 and sf5940). The degree of preservation of the organic remains and the recovery of a number of small pottery fragments, including a sherd of blue and white Ware (sf2112, sf5887) suggest a post-medieval or modern date for the feature.

ARTEFACTS

Artefact Processing Methodology

During the assessment phase of the project all stratified pottery, and occasional unstratified pieces of value, were cleaned, marked with the site code and small finds number. The cleaning was appropriate to the type of pottery; post-medieval pottery and the harder Roman wares were washed, prehistoric pottery was very gently cleaned with a dry brush when thoroughly dry. Cleaning aimed only to expose any decoration or other details, and did not aim to remove all dirt from the sherds. Care was taken not to remove any residues or sooting on the surface. Several categories of finds were recovered from wet sieving, but were processed and recorded in the same way as the rest of the material.

All the prehistoric and Roman pottery has been marked using the site code and small find number. Longworth and Wood (2000, 10) recommend using the excavator's site code as one option for assigning identity codes, and in consultation with Oriel Ynys Môn it was felt to be the most appropriate option in this case. The marking was done using black and white drawing ink with a base and covering of B72 lacquer so that the marking is reversible as recommended by Elizabeth Walker, Collections Manager, National Museum of Wales.

Lithics and glass were washed, iron and other metal objects were gradually dried and dirt was removed from the iron objects with a dry brush if necessary. Copper alloy objects were dried but not cleaned in any way. All finds were packaged in suitable containers and conditions for long term storage, including the use of silica gel for metal items. The bags or boxes were labelled with the site code, small find number and context number, so they can be fully cross referenced to all other site information. Conservation was undertaken on those objects that required it so that all objects are in a stable condition for long term storage. All finds have been placed in a series of archive quality cardboard boxes of a size and specification agreed with Oriel Ynys Môn. The artefacts have been donated to Oriel Ynys Môn and are held by them along with the charred plant remains.

All finds were entered in the site database with weight, dimensions, a written description recorded. All significant items were scanned or photographed and this was linked to the database to provide an archive record.

The artefacts were assessed for potential by the appropriate specialists and recommendations made for further work. The assessments reports are included in Kenney *et al* 2011 and only included below where the assessment alone forms an adequate record of the artefacts. All artefact catalogues are volume III of this report with the detailed specialist reports.

Prehistoric pottery

By Frances Lynch

See figure 131 for the distribution of prehistoric pottery at Parc Cybi
See volume 3, part I.1.1 for full report and figures

Early Neolithic Pottery

There is remarkably little residual Early Neolithic material from the site as a whole with finds concentrated on the rectangular timber building in Area H, the occupation hollow in Area E and a small concentration of material in Area M. All the Early Neolithic sherds can be classed as 'Irish Sea Ware'.

About 1100 sherds were recovered from pits, postholes and hearths associated with the rectangular timber building in Area H (volume 3, Figs I.1.1.1-3). The vast majority of the finds are small sherds, fragments and crumbs, usually with abraded edges and worn surfaces. Generally only a very small quantity of any one pot is present and most contexts contain a mixture of fabrics suggesting that several disparate pots are represented. The over-whelming impression is that this material is domestic debris accidentally incorporated into features. The mix of fabrics and pot shapes was similar within all contexts, with no chronological variations evident.

Some 550 sherds were found within the occupation hollow in Area E (volume 3, Fig I.1.1.4). Most were Early Neolithic but there were also a small number of Beaker sherds. The relict soil (31025) contained much of the pottery but some sherds were also recovered from pits and postholes. There was a high ratio of scraps and crumbs to sherds indicating that the material in this soil has been trampled. The pottery had been more abraded and fragmented in this area than in the timber building.

In Area M there were four features, which contained Early Neolithic sherds (volume 3, Fig I.1.1.5). In one of these features (22118) the sherd was probably residual but the rest formed a close group of pits and postholes representing activity of Early Neolithic date. Again most of the forms and fabrics were identical to the material from H and E. The most notable feature of the sherds from this area is that one sherd has a neatly drilled hole below the rim (sf1892 (volume 3, Fig I.1.1.5)).

Across these three areas a variety of fabrics, both vesicular and gritted, can be recognised but petrological analysis of these places them all in the same group (Group 1) demonstrating that these variations reflect the history of a particular pot, not the basic manufacturing tradition of the community (Williams and Jenkins 2008 and this report vol III Part I.2.1). Group 1 in the analyses made by Dr David Jenkins and Dr John Llywelyn Williams over many years in most of the Early Neolithic assemblages from North Wales, is characterised as a 'clast-void' fabric described archaeologically as vesicular or 'corky'. The added tempering was mainly crushed shell or vein calcite, which has largely burnt and subsequently leached out, leaving characteristic rhomboid voids.

This easily recognised fabric is remarkably uniform and widespread within the Early Neolithic of North Wales (and to a lesser extent southern Wales and Ireland) but it is a shared tradition of manufacture, rather than a matter of trade. In the case of the Parc Cybi and Trefignath pots local manufacture within Ynys Cybi can be demonstrated by occasional traces of Rhoscolyn serpentine and the use of a sandy clay with rounded quartz grains (Williams and Jenkins this report vol III Part I.2.1).

There was some variation in fabrics between Areas H and E; at the latter a fabric (Fabric 0) was present that was not found at the former. Fabric 0 is a poorly fired, red/black 'mealy' fabric with a smooth matt surface. Apart from this, in general, the material from E is more compact and rather paler than in Area H where the vesicular wares are looser and more finely finished. Grass wiping is not seen in Area E, and the use of an outer slip is more apparent in Area E. Intense black sherds and red surfaces are seen in Area H, but not in Area E, except in Fabric 0, which could be a factor of firing.

Pot forms were best defined in Area H but forms in the other areas were similar. All the pots are general purpose bowls in various sizes ranging from 120mm to 330mm in diameter. There are two main shapes: a shouldered bowl, normally with quite an open profile, and an unshouldered form, sometimes slightly bulbous but more often conspicuously straight-sided. In fact few shoulders on the reconstructable pots are sharply defined, and most forms appear to have weak shoulders, a point that was noted in the much smaller assemblage from Trefignath. There are a small number of classic simple everted rims, but the majority of rims are more developed, hooked, rolled or pinched out, and several have been constructed by adding clay strips to create a flat-topped overhanging rim. Some concave but straight necks may belong to globular amphorae-like jars such as those from Borrás Quarry, Wrexham and Clynnog, Gwynedd; a shape which seldom survives intact (CPAT unpublished and Roberts 2009).

Organic Residue Analysis

The very poor bone preservation that is usual in north-west Wales means that information about livestock and husbandry techniques is rarely available for prehistoric periods. This knowledge gap can be partially filled by detecting the use of animal products. One way to achieve this is to study organic residues in pottery, which are most frequently lipids, i.e. the fats, waxes and resins, absorbed into the fabric of the pottery. Analysis of lipids can distinguish animal from plant fats and waxes, ruminant from porcine body fat and dairy fat from body fat. As well as indicating livestock and the practice of dairying, this technique gives direct information on what specific vessels contained.

At Parc Cybi this analysis concentrated on the Early Neolithic pottery as the largest assemblage, with many sherds suitable for sampling. The existence of two considerable Early Neolithic pottery assemblages from contrasting sites, the timber building in Area H and the temporary occupation area in Area E, allowed the comparison of the use of pottery at these sites. Fifteen sherds were selected from each site for analysis. See Dunne and Evershed Vol III part I.3 for methodology and detail of the results.

Identifiable, uncontaminated lipids were recovered from 8 potsherds from Area E and 10 potsherds from Area H, which is a reasonable recovery rate. The results demonstrate that all 18 sherds were routinely used solely to process dairy products, such as milk, butter and cheese. Lipid analysis across Britain and Ireland has shown that contrary to earlier theories that the use of dairy products developed in the Bronze Age dairying was part of Neolithic farming from the start (e.g. Copley *et al.*, 2005; Cramp *et al.*, 2014; Smyth and Evershed, 2015).

However, this is the first known instance where all vessels analysed from a site were found to contain solely dairy products. At other sites, although evidence for processing dairy products is high, especially in Ireland, pottery is also used to cook meat, in some cases pig as well as ruminant meat (Dunne and Evershed Vol III part I.3). The use of pottery at Parc Cybi appears to be more specialised than on many contemporary sites.

Dunne and Evershed (current report vol 3, part I.3.2) have recently carried out analysis of Early Neolithic pottery from the Early Neolithic building at Parc Bryn Cegin, Llandygai. There 6 sherds produced identifiable lipids, and the results also suggested some vessels were used solely for dairy products but one had been used solely for processing ruminant meat products and another had probably been used for both dairy and meat. This supports the importance of dairy products but highlights the unusual status of the Parc Cybi assemblage.

Prehistoric pottery is porous and to function effectively would require waterproofing internally. Ethnographic literature has recorded milk and other dairy products being used for this function and experimental archaeology has shown this to be effective in accurate replicas of Neolithic pottery (David Chapman pers. comm.). While the use of milk to waterproof pottery may account for some of the lipid traces the data shows that this cannot account for the results seen. At both Parc Cybi and Parc Bryn Cegin lipid concentrations were high indicating sustained use for the processing of dairy products. The presence of ketones in some of the lipid profiles also suggests boiling at high temperatures over prolonged periods (Dr Julie Dunne pers. comm.), making it clear that most of the lipid residues come from cooking or other processing activities

The Parc Cybi data shows that the specialist use of pottery for dairy products was not restricted to the large timber buildings. The results from Area E indicate that even in a temporary occupation area, with no evidence of a structure large enough to act as a house or even a hut, the pottery vessels were being used in the same way as in the large timber building. In both cases it seems highly likely that meat and other animal products were being eaten but pottery was not being used in preparing meat for consumption. This suggests conventions, traditions or beliefs that associated pottery with dairy products, but currently this exclusive association seems to be restricted to Holy Island, rather than being a more general Neolithic tradition. Presumably further work will demonstrate how unusual this is. In particular work currently being carried out on pottery from the Early Neolithic buildings at Llanfaethlu will provide an interesting comparison.

The lipid residue analysis demonstrates that domestic ruminants were kept at Parc Cybi in the Early Neolithic period and that they were kept for milk, presumably in addition to meat. The analysis cannot distinguish between cattle, sheep or goat, so without faunal evidence, the composition of the herds remains uncertain. At Parc Bryn Cegin, as well as Parc Cybi, there was a complete lack of evidence for pigs from the lipid residues. This could mean that pigs were processed and cooked in a different way that did not require ceramic vessels. The restricted use of pottery at Parc Cybi makes it likely that even if pigs were present they would not be identified through lipid analysis.

Early Neolithic Pottery Comparisons

The most obvious context for comparison is the assemblage from the megalithic tomb of Trefignath (Smith 1987) where the remains of 8 undecorated pots were found under the cairn and 1 pot in the related quarry. Only the latter can be reconstructed with any confidence and it is a concave necked bowl with a simple rim and a weak shoulder, made from a Group 1 fabric (volume 3, Fig I.1.2.1). Several of the others are made from this same vesicular fabric, while 5 contain visible grit temper, which is demonstrably of local origin. Though the quantity of sherds is quite high, they are all small and mostly featureless; a situation similar to that in Area E at Parc Cybi.

The bulk of this pottery was judged to derive from domestic activity either pre-dating the tomb building or associated with it. There were four postholes, which might have been associated with this domestic activity, but their date and function was unclear. This phase at Trefignath had one radiocarbon date of 3980-3690 cal BC (HAR-3932)²⁴ which suggests a broad contemporaneity to the Parc Cybi building.

Tombs have been the context for much of the Early Neolithic pottery known from Wales up to the present century, but the finds have seldom been prolific. The major assemblage from the Portal Dolmen at Dyffryn Ardudwy, in fact provided the type site for the original definition of the 'Irish Sea ware' group (Powell 1973 and Lynch 1976). This provided the best examples of the elegant and sharply refined shouldered bowls with classic vesicular fabrics carefully finished and burnished.

24 Recalibrated. HAR-3932: 5050±70

At Din Dryfol in Anglesey (Lynch 1987) a few small sherds from one or two shouldered bowls in vesicular fabric were found in the area of the putative Chamber 1. Trefignath, Dyffryn Ardudwy and Din Dryfol belong to the classic 'Stone Box' tradition of tombs (Lynch 1997) judged to be amongst the oldest in the Irish Sea area. The other two tombs in Anglesey which have produced pottery, Pant y Saer and Bryn yr Hen Bobl, are also closed stone boxes, but of rather idiosyncratic design. Pant y Saer, excavated in the 1930s (Scott 1933), contained several sherds from an unshouldered bowl with a rather heavy rim, made from a compact fabric containing a lot of limestone tempering. There is one shoulder sherd and one showing a lug but the general impression of this small assemblage is that it is likely to be rather later than the Trefignath and Din Dryfol material.

The chamber at Bryn yr Hen Bobl, excavated at much the same date (Hemp 1935), had been badly disturbed and most of the finds came from under the cairn, from presumed settlement debris, suggesting a situation comparable to Trefignath. The undecorated pottery from Bryn yr Hen Bobl, being vesicular in texture and including several quite sharp shoulders, is closer to the classic Irish Sea Ware than that from Pant y Saer but there is no precise dating.

Two conjoined sherds from an Early Neolithic carinated bowl were recovered from buried soil under the Tŷ Mawr Bronze Age barrow about 200m north of Parc Cybi (Gibson 2012b). Worked flint and chert including a leaf-shaped arrowhead were also recovered from the site but only a small amount from the same context as the pottery (Kenney and Longley 2012, 106). The pottery may have been related to some postholes scattered across the site and a hearth that produced an Early Neolithic date but the features and the pottery were not closely related and much of the activity probably belonged to Middle Neolithic activity (Kenney and Longley 2012, 110).

Early Neolithic pottery was also found in two evaluation trenches in Cae Glas just east of Parc Cybi. This was found in small pits from which charred cereals including emmer wheat grains and glume bases were recovered. One pit also produced a radiocarbon date of 3800-3650 cal BC (SUERC-57570²⁵) on a hazelnut shell (Wessex Archaeology 2015, 10, 13, 15, 20).

More recently large scale 'strip and map' excavations have revealed the substantial wooden buildings, **which** had previously been missing from the Welsh Early Neolithic. The ridge to the east of Bangor, between the rivers Ogwen and Cegin, in the parish of Llandygai is the site of two of them standing some 500m apart. One was found in 1966 during excavation of the later Henge monuments (Houlder 1968 and Lynch and Musson 2004, 26-36) and the other in 2004, further south on the ridge at Parc Bryn Cegin (Kenney 2009, 14-33). Neither building produced a great many finds but what was found is consistent with that from other houses, in both pottery and stone working. All the pot sherds are small pieces, badly broken and often eroded, suggesting domestic rubbish. The pottery is mainly classifiable by fabric and small pieces of rims and shoulders, since few good profiles survive. Shouldered bowls and unshouldered bowls exist and the fabrics are closely comparable to Group 1 at Trefignath and Parc Cybi (Williams and Jenkins 2008). It is likely that necked globular pots like that from Borrás Quarry, Wrexham existed in both Llandygai assemblages but were reconstructed as the more familiar open shouldered bowl (Lynch 2018). Since the Parc Bryn Cegin assemblage was exclusively associated with the postholes of a relatively short-lived building it can be dated to a start date of 3760-3700 cal BC and end date of 3670-3620 cal BC (68% probability) (Marshall *et al* 2008, 188).

The most recent discoveries of Neolithic houses have been made at Llanfaethlu on the north Anglesey coast only some 14km from Parc Cybi (Rees and Jones 2017). Here there are three rectangular buildings set close together at the foot of a slope with a fourth some 25m away, closer to a small stream. All four buildings produced pottery of Early Neolithic 'Irish Sea' type. The closeness of houses 1-3 would suggest that they are not all contemporary, but there is no significant variation in the style of pottery used. The rims are mainly simple and neatly everted, but some are definitely out-turned and thickened. The shoulders are weak; most just have an S curve but one or two have a defined change of direction. The upright neck with a globular body (Borrás type) is probably present here, as at Parc Cybi. Another Borrás type with a globular body and sharply out-turned rim may also be present. The pottery from House 4 shares the same styles but there is a contrast in that the find groups often contain several sherds of the same pot and so more can be meaningfully reconstructed.

Neolithic pottery was found at Clynnog, Gwynedd from a series of pits randomly distributed over the west-facing nose of a slight ridge about 250m from the present coast. The site looks suitable for settlement but no structures were recognised during excavation for road improvements on the A499 (Roberts 2007, 2009, forthcoming). Some

25 Calibrated to 95% probability. SUERC-57570: 4962±28

fifty pits and eleven post or stakeholes and a few amorphous linear features were scattered over an area of 1625 square metres. Both Early and Late Neolithic pottery was found on the site and for the most part the distributions of the various styles were distinct. Sherds of undecorated vesicular Ware probably represent the scanty remains of 11 pots. One Pot (A) is an unusually large intact segment of a necked bowl, which confirms this unusual profile; but the others are all small pieces of traditional Irish Sea Ware (Lynch 1976). The bulk of the material came from the fill of Pit 37.04, from which two radiocarbon dates were obtained (both c.3750-3650 cal BC²⁶). Another pit (37.210) which contained a fragment of polished stone axe and sherds of an undecorated lugged pot produced two radiocarbon dates (both also c. 3700-3640 cal BC²⁷) (Roberts forthcoming).

Borras on the outskirts of Wrexham is a very large gravel quarry which in prehistory was a rolling landscape of glacial clays with several kettle holes whose water-holding qualities made it attractive to man and animals over thousands of years (Grant 2015). The Neolithic component of the settlement there does not include any recognisable structures but there may have been ovens with hearths and there are certainly pits with pottery. The earliest pottery there may be judged to be Ebbsfleet Ware, a lightly decorated style thought to lie behind the development of the heavily decorated Middle Neolithic series of Impressed Wares (Piggott 1954). The relationship of this pottery to the Western Neolithic/ Carinated bowls/ Windmill Hill-Abingdon Bowls/ Irish Sea Ware series (Sheridan 1995) is fluid, perhaps because the geographical distributions have seldom overlapped. At Borras there are shouldered bowls and a necked bowl like that from Clynog but the rim forms are more complex and the numbers that are lightly decorated is high. The seven dates from Borras for the Ebbsfleet pits are all, like the pottery, astonishingly consistent within a range of 3700-3370 cal BC (Jones and Grant forthcoming). The Ebbsfleet Style has not been much studied in isolation and few radiocarbon dates relate directly to it and the Borras dates must constitute the largest group so far (Ard and Darvill 2015).

The settlements in the north-west of Wales are slightly earlier than this Ebbsfleet occupation in the north-east and their cultural background, with simpler pottery shapes, lack of decoration and substantial buildings, looks much more Irish than the activity at Borras. However, this Ebbsfleet link is indicative of how contacts to the east were developing in the mid-third millennium to bring westward a style of richly decorated pottery with little connection to Middle Neolithic Irish styles and a way of living, which no longer included the use of great wooden buildings.

Middle and Late Neolithic pottery

The majority of the Middle and Late Neolithic pottery comes from pits situated on the slopes below Trefignath megalithic tomb and the Early Neolithic building in Area H, about 100-200m away from these earlier centres of activity. The Mortlake pits are at the bottom, probably close to the contemporary edge of the marsh (Area K) and those containing Fengate and Grooved Ware are a little bit higher up the slope to the east (Area J). There is also a pit with Grooved Ware across the valley in Area D3.

The quantity of Mortlake pottery is not especially large and it is restricted to the 5 pits in Area K9, except for a few sherds from the eastern chamber of Trefignath tomb, probably associated with its closure (Smith and Lynch 1987). Nine different pots may be recognised but only two, Pots A and F, can be reconstructed in any meaningful way. Pot A is a classic Mortlake bowl and Pot F is the lower half of a similar bowl with a flattened base and carelessly scored lines (volume 3, Fig I.1.1.6). The bulk of the material came from one pit but four others contained some sherds. Three of those pits contained sherds of the recognisable pots from the main deposit, indicating that they were all active in some way at the same time. These pits also contained variable amounts of flint flakes, charcoal, charred hazelnut shells, tiny fragments of burnt bone and fire-cracked stones. This mix of materials is suggestive of domestic waste.

There are some 13 identifiable vessels, which can be ascribed to the Fengate Style of the Peterborough or Impressed Ware series (volume 3, Fig I.1.1.7). Traditional typology and, to some extent, radiocarbon dating suggest that they are slightly later than the Mortlake pots and a bit earlier than Grooved Ware. All three styles are normally found in pits and are very seldom associated with domestic structures or burials, but at Sewerby Cottage Farm, North Yorkshire, it is interesting, but puzzling, that Fengate Ware is only found in domestic rubbish dumps and not in

²⁶ NZA-34255: 4914 ± 20 BP, 3710-3640 cal BC (95% probability); NZA-34258: 4946 ± 20 BP, 3780-3650 cal BC (95% probability)

²⁷ NZA-34265: 4890 ± 20 BP, 3710-3640 cal BC (95% probability); NZA-34266: 4860 ± 20 BP, 3700-3630 cal BC (95% probability)

any 'pot pit' (Fenton-Thomas 2009, 151).

The Fengate Ware is more widely distributed than the Mortlake at Parc Cybi. It occurs in a tight cluster of nine pits in Area I, and in five more widely dispersed pits in Areas I and J. It has also been recorded in evaluation excavations by Wessex Archaeology in an area just to the east of the limits of Parc Cybi, some 100m below Trefignath tomb (Wessex Archaeology 2015). There two sherds of a collared jar were found with a largely complete pot. The latter is a small conical jar with a narrow inturned collar and a rim with a corrugated edge (volume 3, Fig I.1.2.1). The rim and body are covered with fingernail rustication in approximately horizontal rows (Lynch vol III part I.1.2). The medium-sized conical jar is the commonest form among the Fengate pots at Parc Cybi, where Pot G is the closest parallel (volume 3, Fig I.1.1.7). The very heavy rustication is not common, but preference for the use of fingernail decoration is everywhere, and this pot from Cae Glas is obviously the product of the same community.

Of the nine pits in Area I most of the pottery came from one pit (21221), representing three different pots (L, N and sf1151), and there were several linkages with the few sherds in the neighbouring pit (25054) (volume 3 Fig I.1.1.8). Pits 18065 and 21210 each contained only two sherds from a single pot (pots G and K). There were no linkages between the other pits, but at least six more pots are represented. Also within Area I were two other pits (19075 and 21037) some 30-50m apart from the cluster and from each other, which contained three Fengate sherds. Some 100m further north in Area J there were two pits, just over 2m apart. Pit 70173 contained sherds of a typical Fengate collared jar; and pit 70181 with fragments of compatible fabric (volume 3, Fig I.1.1.7). Some 16m north from these pits was another pit or multiple postholes (70202) with a featureless fragment of pottery, which may be Fengate.

Grooved Ware occurred in Areas B, D and J, with the largest assemblage in Area D3. A single sherd came from the disturbed central chamber of Trefignath tomb; identified as Grooved Ware largely because of its use of grog as a temper (Jenkins 1987, 71) and the presence of a single groove (volume 3, Fig I.1.2.1). Like the Mortlake material it demonstrates the continuing interest of the community in this ancestral monument (Smith 1987b, 76-8).

Analysis of the Grooved Ware from Parc Cybi shows a certain continuing vesicularity but also a rather greater use of grog as a temper, which was not a significant element of the Mortlake and Fengate fabrics (See Williams and Jenkins, vol III, part I.2.1). The pottery was made locally, like all the other Neolithic ceramic material.

Unexpectedly the roundhouses in Area B2 produced occasional sherds of Grooved Ware (volume 3, Fig I.1.1.9), and this may have originated from a Late Neolithic occupation identified under roundhouse A by radiocarbon dating. There is a single base sherd (sf 4070) from a small bowl, which, based on the soft, lightweight fabric is considered to be Grooved Ware; broadly similar to a small jar from Clynnog (Roberts forthcoming). A small sherd and other fragments (sf4316) in a similar soft fabric from a deposit below roundhouse C might also be Grooved Ware. This deposit (92550) was probably from activity on the old ground surface sealed by roundhouse C and the pottery may have been largely *in situ*. An incurved rim (sf801) from a stone surface in use with granaries linked to the roundhouse group is also probably a bit of residual Grooved Ware, since it is similar to Pot X from Area D3.

The Grooved Ware from Area J comes from two pits, pit 70503 cut 70529, and a possible posthole (70480). Five vessels can be identified from this area, mostly coming from the two pits (volume 3, Fig I.1.1.8). Pieces of some of the most distinctive pots can be recognised in both pits and in the posthole. Not much of any one pot survives except for pot Q, with a substantial piece of base and some body sherds, and a small tub, pot R, which has a large part of the rim and body showing decoration of incised horizontal grooves topping a broad band of jagged filled triangles. Body sherds suggest that some of the larger pots had quite prominent cordons bordering bands of grooved or ribbed decoration.

The only other occurrence of Grooved Ware at Parc Cybi was in Area D3 some 500m away to the west, with two pits, only one of which (60093) contained any significant quantity of pottery. Pit 60093 contained 26 sherds and other fragments all in approximately the same fabric: hard, compact with well-crushed stone grits (volume 3, Fig I.1.1.9). Five pots could be identified but only one was present in any quantity; Pot W, a tub-like bowl. Pot W is decorated all over with neat vertical lines of sharply cut impressions. They are so uniform in size that they must be made with a stamp but some appear to be triple, like a tiny bird footprint, and others double. The fabric is compact, well-fired and smooth with well-crushed grits.

Two other upright rims are present. One (Pot Y) is very hard with a diagonal slash across the top and a firm stab-mark on the outer surface. The other (Pot Z) is also flat-topped with three rather carelessly drawn grooves on the

outer surface and is probably from a tub with a band of grooves around the top. Another grooved body (sf1656) is not part of the same tub because of difference of fabric and style of grooving. The final pot (Pot X) is represented by a narrow segment of a rounded incurving rim with a band of decoration of horizontal grooves and oblique square-ended stab marks. Pot X was analysed and is slightly different in fabric from those from Area J, but does contain both grog and stone filler.

Mortlake Pottery Comparisons

The nature of the Mortlake pottery from Parc Cybi is very typical of the style across the country, in the use of large pieces of quartz and other light coloured stone tempering in a predominantly pinkish clay matrix, in the rather careless impressed decoration in varied techniques, and in the shape of the bowls and their rims (Gibson 1995b).

The single analysed sherd from this assemblage (sf5720 Pot A) unfortunately included an area without large grits, but the bulk of the material has the characteristic large inclusions. The detailed analysis demonstrated that it, and the pots from the tomb and all the other Middle to Late Neolithic pots, were made from local “clays” and local stone fillers from within Ynys Cybi (see Williams and Jenkins, vol III, part I.2.1)

Impressed Wares were relatively rare in the archaeological record of North Wales until the advent of large developer funded excavations, which uncovered the non-monumental pits in which it is usually found. Since 2000 (Lynch 2000) their distribution has considerably expanded and there are now several large assemblages from across the region.

In Anglesey the style has been known since 1935 when a small group of sherds was found beneath the ‘terrace’ at Bryn yr Hen Bobl megalithic tomb (Hemp 1935). The Trefignath Chambered Tomb produced pottery judged to be Mortlake, though Smith (1987b, 78) originally suggested that it was in the Fengate tradition. The large wooden houses at Llanfaethlu are followed by the puzzling phenomenon of pit digging which is carried through into the Late Neolithic with Grooved Ware (Rees and Jones 2017a). Just 200m north of Parc Cybi sherds of a bowl of Peterborough ware, probably of Mortlake style, were found from buried soil under the Tŷ Mawr ring ditch monument (Gibson 2012b). These may have been associated with a scatter of postholes, two of which produced Middle Neolithic dates (Kenney and Longley 2012, 106-110).

On the mainland, Parc Bryn Cegin near Bangor shows the same sequence with an Early Neolithic building and limited pottery finds and then a series of pit clusters containing Mortlake, then Fengate and finally Grooved Ware pottery (Kenney 2009). Further south on the mainland at Clynnog there is no building, but some Early Neolithic pottery in a pit and other pits containing some rather untypical Mortlake Ware, Fengate/Grooved Ware and some Beaker (Roberts 2007, Roberts forthcoming).

Further east at Brookhouse near Denbigh a small excavation produced evidence for 13 pits of which 7 were filled exclusively from a midden containing Mortlake pottery (Rees and Jones 2017a). At Borrass Quarry in Wrexham a very large area has demonstrated a shifting occupation with clusters of chronologically distinct pits, which contain a lot of Ebbsfleet Ware, some Mortlake, some Grooved Ware, virtually no classic Beaker, but a lot of Domestic Beaker (Grant 2015, Jones and Grant forthcoming). Sites around Fourcrosses near Welshpool have produced an Ebbsfleet pot with an early single burial (Warrilow, Owen and Britnell 1986) and some pits with rather fine small Mortlake bowls (Fourcrosses by-pass), similar to some at Borrass.

Detailed comparisons can be made with local contemporary sites. It could be argued that those who were using/closing the tomb at Trefignath would have been part of the community living just down the hill at Parc Cybi, but in fact, the pottery is not especially close. Trefignath pot B (volume 3, Fig I.1.2.1) is the most standard Mortlake pot with a ridged rim decorated with twisted cord, which is also found on the rounded body (Smith 1987, 73-9). The rim shape is comparable to Pots C and perhaps D at Parc Cybi (volume 3, Fig I.1.1.6), but they have no twisted cord. In fact, all the Parc Cybi pottery is decorated by fingernail impressions or broad incisions. Trefignath pots A and C, probably the same pot, have a lozenge-shaped rim carelessly decorated with whipped cord herring bone (volume 3, Fig I.1.2.1). Rims of this shape and the use of whipped cord are popular at Llanfaethlu but neither is seen at Parc Cybi. Trefignath pot G has an odd damaged rim with twisted cord on the top edge.

A flat base at Trefignath is thought to belong to pot A/C, which has led to its designation as Fengate Ware, of which the rim is not very typical. It is worth noting that Pot F at Parc Cybi definitely has a flattened base, and so, less obviously, does the base sf5714. A very straight-sided narrow pot from Carrog, Llanbadrig in very typical Peterborough fabric must also have had a flat base (Smith *et al* 2014); as does a small elongated pot (E) from

Brookhouse, Denbigh (Rees and Jones 2017b). This all points to the fact that we are dealing with a continuum and typological distinctions are fluid.

The four rims at Parc Cybi are all relatively narrow and Pot A has a style of rim which is widespread, the lines of deep dots on a rounded rim profile is popular at many sites, including Bryn yr Hen Bobl (Lynch 1991 fig 28.13) and Borras (Grant 2015). What is perhaps surprising is that there are none of the ridged lozenge-shaped rims, which occur at Bryn yr Hen Bobl (Lynch 1991 Fig 28, 17) and are particularly popular and often most carefully made at Llanfaethlu (Rees and Jones 2017a). Nor are there any of the sloping T-shaped rims which seem to be a feature of the Marches and South Wales (Gibson 1995b). Though Peterborough styles are easily recognised around the country, there are regional preferences, some of which may even be personal preferences of particular potters.

Fengate Pottery Comparisons

There are several very close similarities between the shape and decoration of the vessels from Parc Cybi and Parc Bryn Cegin, which with 27 vessels probably has the largest Fengate assemblage from Wales (Kenney 2009). All the jars at Parc Cybi are collared, most of them with a relatively narrow incurved collar and a bevelled rim with herring-bone decoration. The characteristic pits under the collar occur only in Pot J; in Pots G and L they are clearly not there (volume 3, Fig I.1.1.7). These jars would normally have a conical body coming down to a narrow base.

Pot I is larger and has a straight collar, looking very much more like an Early Bronze Age Collared Urn, but decorated sherds from the lower body suggest that it was fully decorated (volume 3, Fig I.1.1.7). In fact, it is closely comparable to PGVI.A from Parc Bryn Cegin where the fingernail marks come right down to the base, which is very seldom the case with Collared Urns in Britain (Longworth 1984). Rather surprisingly, the use of fingernail impressions is relatively rare at Parc Cybi. They occur on Pots J and L, but on A it is incision and on I the lines are created by a 'stab and drag' technique with a thin stick (volume 3, Fig I.1.1.7). The inserted base of Pot L is unusual and may have been a repair during manufacture.

The fabric of all these pots contains a lot of very conspicuous angular stone grit, some of it dolerite and sandstone. Analysis of two sherds demonstrated that, like all the other Neolithic pottery, these jars were made with local materials. The walls are quite thin and the grits protrude from the surface making them look rather rough.

Parc Cybi and Parc Bryn Cegin both have pits containing the triple range of pottery style: Mortlake, Fengate and Grooved Ware that are most frequently found through the Middle to Late Neolithic. Of the three, Fengate seems to be the rarest in Wales. For instance Borras in north-east Wales has Ebbsfleet, Mortlake, Grooved Ware and Domestic Beaker but no Fengate. Nor does Llanfaethlu in Anglesey have typical Fengate, though there is much Mortlake and Grooved Ware. At Ogmere in Glamorgan all three styles are present, as they are at Walton, though the identifications are fluid and there is clearly not very much Fengate material (Gibson and Kinnes 1997 and Gibson 1999). At Clynnog, Gwynedd, there is a problem in distinguishing Grooved Ware and Fengate, as there is at Llanfaethlu where the appropriateness of modern typological classification may be in question. If it was a matter of distinguishing Mortlake and Fengate, this would be no problem since they clearly overlap in date, but there does currently remain a chronological separation between Fengate and Grooved Ware (Garwood 1999) and this is maintained by the dated Grooved Ware from Parc Cybi (see below).

Fengate Ware seldom appears in any context except Pit Groups, but there is a characteristic sherd from beneath the Late Neolithic enclosure bank at Castell Bryn Gwyn, Anglesey (Lynch 1991, 101) and from a single pit within a probably unrelated enclosure at Brynderwen, Powys (Gibson and Musson 1990). In southern England it appeared notably in the filling of the West Kennet Long Barrow chambers (Piggott 1962) and in the ditches of Causewayed Camps such as Windmill Hill (Keiller 1965) alongside all the other Impressed Wares, collectively categorised as Secondary Neolithic by Stuart Piggott in 1954. The Fengate style was first distinguished by Isabel Smith in 1956 (Smith 1956, 106-16) but, though it is widespread across Britain, it has not received much exclusive discussion since then. It has been occurring frequently across the Midlands and in Yorkshire in recent years because, as in Wales, large scale commercial excavations have revealed the pits in which it is normally found. In Yorkshire it has been usefully studied by Terry Manby in the course of many specialist reports. His discussion of the material (Rudston, Mortlake, Fengate and Grooved Ware) from Sewerby Cottage Farm near Bridlington contains a useful résumé of the stylistic ranges, contexts and dates for the northern material (Manby in Fenton-Thomas 2009, 175-85). The Yorkshire Fengate material in particular is extremely close to the Welsh material, reinforcing the impression that there is a good deal of contact between North Wales and Yorkshire in the Later Neolithic and the

Early Bronze Age.

Grooved Ware Comparisons

The majority of the pots can be reconstructed as some kind of tub with a flat base, gently sloping sides and an upright rim with various forms of elaboration (volume 3, Fig I.1.1.8). Body sherds (Pots S and T) suggest that some of the larger pots had quite prominent cordons bordering bands of grooved or ribbed decoration. The small tub (Pot R) is a classic Clacton-style pot typical of many found widely across Britain. In Anglesey, pottery recently found in pits near Bryn Celli Ddu (excavations by the University of Central Lancashire) belongs to this style, as does the pottery from Pit Group VIII from Parc Bryn Cegin, Bangor. The two analysed sherds (sf6381 and sf6394 from Pits 70503 and 70529 respectively) contain significant grog and are rather soft and lightweight, as are the pots from Parc Bryn Cegin and Bryn Celli Du. Both these sites can also provide parallels for Pot Q with its rather haphazard bands filled with sharp triangular stab marks. The scraps of angular grooved decoration from various pots (volume 3, Fig I.1.1.8) belong to the same style though the curvilinear pieces are less common, but not unknown (e.g. at Durrington Walls (Wainwright and Longworth 1971)). The elaborately decorated rims (Pots ?Q and P) probably come from similar, but slightly larger tubs. The internal ridging and the raised wavy cordons are found frequently, especially in Scotland (Sheridan 1999, Fig 12.6) and in the Woodlands style which is judged to be contemporary with Clacton (Garwood 1999, 158). The large, more curvaceous jar (Pot O) (volume 3, Fig I.1.1.8) is a much bigger vessel with a very elaborate internally moulded rim (a distinctive feature of Grooved Ware) and a grooved and stabbed exterior. The wavy cordon inside the rim links it with Pot P even though the shape of the jar is not common in Grooved Ware.

No parallels have yet been found for the decoration of Pot W, resembling tiny bird footprints (volume 3, Fig I.1.1.9). The grooves round the rim of Pot Z can be compared to Pot PGVIII B at Parc Bryn Cegin (Kenney 2009, Fig 15). Pot X is represented by a narrow segment of a rounded incurving rim with a band of decoration of horizontal grooves and oblique square-ended stab marks. This incurving profile is common in the Durrington Walls style, but usually on much heavier, coarser jars (Wainwright and Longworth 1971, Figs. 36-49). In Anglesey, notably at Llanfaethlu and at pits near Penmynydd (Davidson *et al* 2010, 12-17), this profile appears frequently, often with rather richly carved grooves and cordons embellished with nicks and complex stab marks. The impression gained is that these are rather finer bowls than the heavy southern jars and that this particular style may have been become more refined in north-west Wales.

Grooved Ware has become more common in Wales since 2000 (Lynch 2000, 112-15 and gazetteer in Cleal and MacSween 1999) and in Anglesey alone there are now 6 significant assemblages: Parc Cybi, Llanfaethlu, Wylfa estate Evaluation 9, Penmynydd, Bryn Celli Ddu and Capel Eithin, as well as the single sherds from the tombs at Lligwy and Trefignath. These collections, most of them not yet published, differ in the styles of Grooved Ware preferred. The Clacton style with sharply incised bands and triangles on tub-shaped vessels occurs at Bryn Celli Ddu and amongst the Area J pits at Parc Cybi. At Capel Eithin the style was described at Woodlands (Longworth in White and Smith 1999, 76-77) and was characterised by bowls with multiple raised cordons in a very lightweight fabric. This style occurs again in the much larger and more varied assemblage at Llanfaethlu where it is associated with vases with incurved rims and deeply cut grooves and also with wavy 'pie crust' cordons, both of which are seen at Parc Cybi. The pits at Penmynydd produced bowls with incurved rims and gently waved cordons in a particularly richly embellished style, which is also seen at Parc Cybi D3, Llanfaethlu and Wylfa. This may turn out to be a distinctive feature of the pottery from the island at this period.

Beaker pottery

By Frances Lynch

Beaker pottery was generally rare on the site appearing only as small eroded sherds in Area E and a near complete Beaker in a cist in Area M. In Area E the majority of the material was Early Neolithic, but there was a small amount of Beaker pottery, some 14-16 small sherds in all, from features and from the relict soil, with an additional 14 sherds found in Evaluation Trench 6, cut through the same area in 2004 (Davidson and Roberts 2004). All this material occurred as small eroded sherds, from at least 7 different pots (volume 3, Fig I.1.1.10).

Only one of these Area E Beaker finds (851) was analysed. The sherd proved to contain a mixture of grog and clasts, finely crushed and, like all the other Neolithic and Early Bronze Age pottery, most likely to have been made locally. The other sherds were assessed macroscopically and were judged to be characteristic in both fabric and decoration of Early Beaker styles, with horizontal bands of hyphenated or rouletted lines in simple designs. Comparison with other Welsh Beakers (Lynch 2000 Fig 3.13, p 117) would put them in Lanting Steps 2 or 3

(Lanting and Van der Waals 1972) at a chronological horizon of 2500 – 2250 cal BC (Needham 2005 Period 1 – Pre-Fission). However, there are no rims present and no indication of the shape of the body so this is not a firm conclusion. More pertinent is the condition of the sherds and their scattered distribution, which suggests that they are essentially domestic rubbish and comparable to a number of similar scatters often found beneath the protection of later monuments or in patches of eroding soil.

In Anglesey the collection from the Newborough sand dunes (Lynch 1991, 123-5) is the best known and has been compared to other coastal sites at Merthyr Mawr Warren, Glamorgan, Dalkey Island south of Dublin and Glenluce Bay in south-west Scotland. A more recent find of similar material was made at Cromlech Farm, Llanfechell where some 20 small sherds with zoned hyphenated decoration were found in a crack in the bedrock close to the remains of the fallen megalithic tomb at Cromlech (Smith 2013a, 60). Sherds from two vessels were found in an isolated pit at Hidre-faig Farm, Penmynydd (Davidson *et al* 2010, 10-12). Elsewhere scatters of Beaker sherds have been found beneath Bronze Age monuments at Brenig 51 (Lynch 1993, 104-5), Trelystan (Britnell 1982, 165) and throughout Britain (Gibson 1982).

Beyond Area E at Parc Cybi fragments of Beaker are very rare. There are a couple of classic decorated sherds from Cae Glas 2 to the east, excavated by Wessex Archaeology (Wessex Archaeology 2015, 10, 13; Lynch vol III, part I.1.1.2), and there is one small fragment with possible decoration (sf5416) from Area F1, from the old ground surface beneath the platform for Roundhouse I.

Although complete Beakers were very carefully buried in 3 pits within Henge B at Llandygai I (Lynch and Musson 2004, 65-7) there were none at nearby Parc Bryn Cegin within the virtually contemporary 'broken pot pits' (Kenney 2009) and there are none within pits here, nor at Llanfaethlu. Whatever the role of these pits, Beakers do not seem to be involved. They seem to be either trodden under foot or reserved for more formal roles, normally accompanying burials.

On Ynys Cybi itself the only other Beaker finds come from one of the barrows at Porth Dafarch, which were excavated by W.O. Stanley (Stanley 1876; Lynch 1991, 126, 130-2). The virtually complete Beaker from this site is Long-necked and belongs to Step 5, probably dating to around 2000 cal BC. Two small sherds from another Beaker, perhaps never complete, were also found in the central cist. They look very similar to sf2323 from Parc Cybi (volume 3, Fig I.1.1.10) and demonstrate the difficulty of precisely dating very small remains.

Over the country as a whole Beaker pottery is found more frequently in the formal context of burials where a complete pot may have served to hold refreshment for the journey to the underworld. In the barrow in Area M one of the stone cists (cist 7) contained just such a complete pot (volume 3, Fig I.1.1.11).

This pot (sf4102) is a rather wide but short Long Necked Beaker decorated with two similar panels, on body and neck, of exuberantly scored chevrons. The gently everted rim is encircled with short vertical strokes. The decoration suggests rapid work by an experienced hand. The fabric is pale beige and contains a good deal of stone grit, including serpentine which indicates local manufacture (See Williams and Jenkins, vol III, part I.2.1). The pot is complete, barring a damaged foot but had been broken. This revealed that it was constructed from two broad coils (neck and body) with the foot added to a gently rounded base.

A close parallel to this Beaker is the one from Linlathen, Angus, which was associated with a flat bronze dagger, which can be dated to 2200-1950 cal BC. The pot is judged to belong to a class of Weak-Carinated Beakers (WC) in the Fission Period or middle stage of Beaker currency (Needham, 2005, 189). In Clarke's 1970 *Corpus* the Linlathen pot and several others with largescale angular decoration are designated S4 (Final Southern), something of a 'dustbin' category. Needham also admits that his WC Beakers are morphologically mixed and suggests that they may reflect more domestic styles, the formality of funerary wares having by this stage diminished.

A single worn sherd from close to the collared rim of another Beaker comes from Cist 2. This is very unlikely to have been part of a funerary vessel in the cist. The fabric is typical and it is decorated with one clear hyphenated line and perhaps another below (volume 3, Fig I.1.1.11).

The lipid analysis of the Beaker (Dunne and Evershed Vol III part I.3) provides some information about its use and history. Lipids were recovered in much lower abundance from the Beaker than from the Food Vessel in cist 3. It is suggested that this indicates that the Beaker was used minimally, possibly only once, before being placed in the grave. This vessel therefore may have been made specifically for deposition in the grave.

The analysis shows that the Beaker contained dairy products. As the lipid concentration was low it is possible that this residue originated from waterproofing the pot with milk rather than from its contents. If so the contents did not contain any fats other than dairy fats, and the prevalence of dairy fats from Beakers analysed across Britain suggests that the contents were based on dairy products.

Beakers have been suggested as drinking vessels that contained alcoholic drinks or narcotic substances used in rituals. Some support for this has been obtained from pollen and residue analysis from Beakers. Recent analysis of Bell Beakers in Spain produced physical and chemical evidence of fermented cereals suggestive of their use for ale and the authors argue that this supports the interpretation of Beakers as related to drinking rituals (Rojo-Guerra *et al* 2006, 251, 262). However most Beakers analysed show evidence of dairy fats suggesting their use for milk based drinks, possibly fermented rather than ale (Šoberl 2009). A Beaker from Udny Green, Aberdeenshire contained dairy fats as well as traces of beeswax and meadowsweet pollen, interpreted as possibly a milk drink flavoured with honey (Mukherjee and Evershed 2007). The Parc Cybi beaker may have held a similar beverage as an offering to the dead.

Food Vessels

A complete bipartite Vase Food Vessel (SF 2038) was recovered from Cist 3 in the multi-cist barrow (volume 3, Fig I.1.1.12). This small Vase Food Vessel is 144mm in diameter and 135mm tall, decorated to the foot with deep horizontal grooves creating a corrugated profile in which there are three broader bands, which are variously decorated with vertical incisions created with a squared stick. The central band has alternate vertical and horizontal lines reminiscent of the lugged Bowl Food Vessels, just as the three broader bands reflect the Tripartite Bowls. Two intermediate ridges have a row of squared dots, which are also present on the inner slope of the rim. The pot is complete except for some damage to the top of the rim, suggesting that the pot was not specially made for the funeral, but taken from a domestic shelf.

Lipid analysis from this pot showed that it had contained dairy products (Dunne and Evershed Vol III part I.3). The lipid concentration was high suggesting that this vessel was regularly in use for processing or cooking dairy products before being deposited in the grave. This evidence, with the rim damage suggesting previous use, supports the suggestion that this vessel had a life as a domestic pot, possibly a cooking pot, before being selected for inclusion with the burial. The fine decoration was therefore made for its everyday function, although it possibly influenced its selection for the burial. The final contents included when the vessel was deposited in the grave would be difficult to separate from the residues of normal use, though it cannot have contained fats other than dairy fat, as these would have been detected. It is likely that the final offering was also of dairy products. Pollen from a deposit in a Food Vessel from North Mains, Strathallan revealed high percentages of meadowsweet pollen as well as fairly high percentages of cereal pollen. This was interpreted as indicating that the contents were either a porridge of cereals or a fermented ale, flavoured with meadowsweet flowers (Bohncke 1983, 180). There is no reason why the Food Vessel could not have contained a milk drink, perhaps fermented and perhaps flavoured as might also be suggested for the Beaker in the neighbouring cist.

This type of ovoid Vase Food Vessel is not especially common in Wales, but is quite widespread, having been found in cairns at Llanllechid and Llandygai, near Bangor (RCAHMW 1956), at Trelystan and Fourcrosses in Montgomeryshire (Britnell 1982) and at Welsh St Donats 2 in the Vale of Glamorgan (Charlton *et al* 1982). It is also to be found in Ireland, especially in the north (Waddell and O'Riordain 1993 nos 73, 509, 511, 556) and the Isle of Man where the pot from Lhergyveck, Kirk Michael, was a chance find without funerary context (Woodcock 2008, no.19). Anna Brindley (2007, Figs 63 and 153) places these Bipartite Vases of ovoid profile in her Stage 1, overlapping with the Bowl Food Vessels, with a date range of 2000-1900 cal BC. The date from Trelystan (Britnell 1982, 167 and 191 (CAR -279 (3750 +/-70 BP), which, recalibrated, would be 2460-1950 cal BC²⁸. Such a date would allow this Vase and the Beaker from Cist 7 to be contemporary within the same cairn.

Food Vessels were also recovered from the ditch of the D-shaped Enclosure in Area M. Sherds from an Undecorated Vase Food Vessel and a single sherd from what is probably another Vase Food Vessel come from three different points in the ditch fill of this enigmatic feature whose date and purpose is unknown (volume 3, Fig I.1.1.12).

There are seven sherds and scraps from a small undecorated Vase Food Vessel (Sf 1090 /1094) from two different points in the ditch of the enclosure. There is no suggestion that these sherds belong to a container or

accompaniment to a cremation burial, beyond the fact that it is not far from the Multiple Cist Cairn and has been broken and thrown away, perhaps at a later date.

This pot has a rim diameter of 200mm and a probable height of 220mm, a sharp inwardly bevelled rim and an unusually high shoulder. The fabric is beige throughout with plentiful well-crushed grits, which is generally typical of Food Vessels. Analysis has shown that there is local serpentine amongst these grits and the composition of the matrix and fillers is similar to that of a Cordoned Urn from Area K1 (see below) and Beaker 4102, as well as some of the earlier pots from Trefignath (see Williams and Jenkins, vol III, part I.2.1)

The sharp high shouldered profile puts this pot into the class of Tripartite Vase Food Vessels (Waddell and O’Riordain 1993 no 409). The lack of any decoration is rare but not unknown in Ireland, though a glance through Abercromby’s catalogue (1912) reveals none, emphasising the normal density of decoration on these vases. In Anglesey the Vase Food from Cerrig Dewi (Lynch 1991 Fig 53.7) is very much the same size and has a high shoulder, but is covered with the ubiquitous herring bone incision. Elsewhere in Wales the vase from Candleston on Merthyr Mawr Warren in Glamorgan (Ward 1919), found with a flat bronze dagger similar to the one from Linlathen, judged to date from 2200-1950 cal BC, is similar in shape, though it has some limited decoration. This burial has been dated by Anna Brindley for her larger project of dating Bronze Age pottery in Ireland (Brindley 2007, 367). The date is 2120-1900 cal BC²⁹ (3620 +/- 25 BP) which corresponds with the Irish series (Brindley 2007, 265).

The other pot is represented by a single large sherd (sf1074) with 2 lines of fingernail marks, one on edge of rim, the other set between very shallow grooves (volume 3, Fig I.1.1.12). The rim is lightly expanded, with a slight inward bevel. The fabric is hard and well-fired with a lot of stone small-medium grit; mica and hornblende. Analysis by Patrick Quinn (vol III, part I.2.2) concludes that the fabric is similar to that of the Cordoned Urn from Area K1, and to a lesser extent, the Beaker from Cist 7 and the Undecorated Food Vessel from this same ditch. These pots belong to Williams and Jenkins Group 3a.1 containing ultramafic rocks suggesting local manufacture.

The dating of this sherd has been the subject of much debate because it was at first thought to be a piece of stamped Malvernian Iron Age pottery. This was categorically rejected by Elaine Morris on grounds of both fabric and decoration (Morris vol II part I.1.3). The fact that the subsequent detailed microscopic analysis (Quinn, vol III, part I.2.2) demonstrates that it must be a local product has turned attention to earlier periods. Comparison with the not very plentiful Middle and Late Bronze pottery in North Wales (Castell Odo (Alcock 1960), Rhuddlan (Berridge in Quinnell and Blockley 1994 132-8) Glanfeinion (Britnell *et al* 1997) and Llandygai (Lynch and Musson 2004, 74) is not very close.

Since the other sherds from the ditch of the D-shaped Enclosure can be identified reasonably confidently as part of a Vase Food Vessel, it is worth looking for possible parallels within that group. Close parallels do not occur but the burial urn from the foot of Maen Llwyd, the Standing Stone in Glynllifon Park south of Caernarfon (Wynn 1875) is an undecorated pot of much the same size, with a similar rim. This is normally identified as a Vase Food Vessel (Savory 1957 no.B3) for which its context is appropriate.

Another couple of sherds (sf 4327 and 6339) (volume 3, Fig I.1.1.12) come from a tree hollow, 40199, close to the edge of the group of cists. These have the same fabric as the Vase Food Vessel discussed above, but are rather thicker and clumsier. Sf4267 is a fragment of an out-curved rim with oblique incisions on the exterior and sf6339 is undecorated and from a gently curved shoulder. Identification as a large Vase Food Vessel or Food Vessel Urn is dependent more on fabric than shape or decoration, but a reasonable parallel can be found in the pot from a cairn at Garthbeibio, Montgomeryshire (Savory 1957, Fig 4.3).

Two other fragmentary rims (sf1635 and 6352) from Areas K and J might belong to Vase Food Vessels or perhaps an Early Collared urn. SF 1635 (volume 3, Fig I.1.1.12) is part of a well-made everted rim with twisted cord and slashed decoration in a fabric with well crushed grit, typical of many Food Vessels. SF 6352 from J3 is a fragment of a pointed rim with whipped cord in herring bone pattern on both sides. This could be a Food Vessel rim or perhaps an Early Collared Urn where the use of whipped cord and of herring bone patterns is more popular than in the Late Neolithic styles. Neither of these pieces is significant beyond demonstrating that there is non-funerary Early Bronze activity on the site, some 650m to the east of the burial cairn and the Standing Stone.

Cordoned urn

Sherds of a Cordoned Urn (SF 1031 and 1476) (volume 3, Fig I.1.1.12) were found in a pit 20081 in Area K1, some 20m west of the Timber Roundhouse. There are 26 sherds from probably a single Cordoned Urn in this pit, confirming the non-funerary nature of the Early Bronze Age activity on the lower ground. Cordoned Urns are normally associated with cremation burials but they do occur on settlements on the northern Irish coast, notably at Downpatrick where sherds from several urns were found in occupation layers associated with two round wooden houses (Pollock and Waterman 1964).

The sherds are all abraded and there are no joins on ancient breaks though they all come from a segment, amounting to about 25% of the circumference, of the upper part of the pot. The fabric is distinctive: brick red on the outside at the rim with a sharp distinction between the red and a dark inner core/surface. Lower down the pot this distinction is less sharp and the surface is a reddish brown. Fresh breaks show the fabric to be compact with a lot of well-crushed stone grit. The decoration is made by lines of thick cord carefully impressed in the upper section between the simple upright rim and the cordon. Not enough of the pot survives to show whether there was a second cordon.

Cordoned Urns are most frequently found in burial contexts and occur in Scotland (more than 150) and Ireland (more than 80) and in smaller numbers in the Isle of Man and in coastal areas of Wales (Waddell 1995, Fig 11.3). It is interesting that the Early Bronze Age material at Parc Cybi, such as it is, follows an Irish Sea style, so prominent in the Early Neolithic but lacking in the design of Middle and Late Neolithic material. However, like all the pottery on site, this very Irish looking Cordoned Urn was locally made, containing a very rare hornblende from intrusions of ultramafic rocks in the Rhoscolyn area (See Williams and Jenkins, vol III, part I.2.1).

In Anglesey Cordoned Urns have been found at Treiorwerth, Llanddyfnan and Menai Bridge (Lynch 1991); in Caernarfonshire at Braich Lwyd, and at Circle 278 on the hills above Penmaenmawr (RCAHMW 1956). In mid and south Wales they have been found at Fan y Big on the Brecon Beacons (Briggs *et al* 1990) and at Mount Pleasant, Glamorgan (Savory 1952). In Ireland they have been part of an extensive dating programme and typological study (Brindley 2007).

This pot with its simple upright rim and its large-scale open ornament is typical of Stage 3 urns in Ireland and elsewhere (Brindley 2007, 287-92). Stage 1 Cordoned Urns overlap with Collared Urns and look very similar; Stage 2 is the largest group, current from 1650-1600 and the final Stage 3 urns are judged to be current from 1570-1500 cal BC.

Middle Bronze Age Pottery

In general Middle Bronze Age pottery was represented only by scattered sherds but appeared in several locations across the site (figure 131). Possible later Bronze Age pottery in Area K hints at a continuation of activity from the Early Bronze Age and a scatter of Middle Bronze Age sherds and radiocarbon date of the same period are associated with at least some of the settlement activity in this area. Whereas Early Neolithic occupation seems to prefer the higher ground (Areas H and E) activity from the Middle Neolithic, through the Bronze Age to the Iron Age, Roman and post Roman periods seems to concentrate in the lower parts of the site. A rim sherd and other fragments from two earth ovens (pits 31306 and 31513) in Area E represent more scattered activity. The rim (sf952) has a slight internal bevel and may have been gently in-turned (volume 3, Fig I.1.1.12).

A group of intercut pits and hollows (70054 and 70126) in Area J have produced 6 small sherds, one of them a rim (sf1703) and Middle Bronze Age radiocarbon dates of 1450–1300 cal BC (SUERC-81339) and 1400–1210 cal BC (SUERC-83269). This is the strongest evidence for pottery of this date at Parc Cybi and has influenced the interpretation of other undated deposits with essentially featureless pottery in this part of the site.

The rimsherd (sf1703) is small, flattened and slightly out-turned in a hard but smooth fabric with small grits (volume 3, Fig I.1.1.12). It is not distinctive but it is compatible with other pottery of this date. There is another featureless sherd in this same find which contains rather more grit and is closer to some of the other possibly Middle Bronze Age material from Area B. A small number of sherds and fragments of a similar fabric were also recovered from the ploughsoil in Area J.

Further west in Area K1 lies a pit (18124) which contained two quite large but featureless sherds (sf3051) from two different pots. One is hard, with orange/pink surfaces and slightly darker core and relatively sparse angular grits. The other piece shows clear indication of coil building and is pale grey with beige surfaces and is rather soft. Neither of these sherds is dateable but they could belong to a Late Bronze tradition.

Near the clay walled roundhouses (PRN 31595) were 4 pieces of hard abrasive pottery with visible grits but otherwise entirely featureless (sf4482/4375). A few sherds, which are residual finds in the stone-walled roundhouse settlement, which might be Middle Bronze Age, but they lack good diagnostic features. The small structure (22171) in Area L3 produced from the central hearth 6 sherds of a brown, very hard, sandy and abrasive fabric with angular stone grits that could be Middle Bronze Age.

Near this structure in Area B1 was a group of 19 pits (Pit group 25046). Three pits contained pottery crumbs but a fourth (Pit 10001) contained a single rimsherd (sf1210) in a compact heavily gritted fabric, well fired and brown throughout (volume 3, Fig I.1.1.12). The bevelled rim has a slight inward curve, and this sherd could be Middle Bronze Age, though there was also some Iron Age activity in this area.

Later Bronze Age pottery is both rare and undistinctive in Wales, as in many areas of the west and north of these islands. The reduction in funerary pottery and the elusiveness of settlements is undoubtedly a factor, but it is also likely that pottery was no longer valued and used in the way that it had been; no longer are there regional styles expressive of cultural identity or pride in craft skills, and because of the functional uniformity there is little evidence of trading networks. Analysis suggests that the vast majority is locally made. The appearance of boundaries and of possibly defensive enclosures in this period gives an impression of societies more turned in on themselves and more anxious than in the past.

There are not many assemblages of Later Bronze Age pottery in Wales. The best is from Glanfeinion in the Severn valley near Llandinam (Britnell *et al* 1997) where there is a good wooden round house, 258 sherds from some 10 pottery jars and secure radiocarbon dates in the range of 1400-1170 cal BC. The pottery is all heavily gritted, rough surfaced and simple in shape with very tentative and minimal decoration. The profiles are largely straight-sided with upright rims, often with an internal bevel. All the decoration is carelessly applied without much coherent design but there is a variety of technique: impressed cord, incision and fingernail/tip slashing on poorly defined cordons.

The parallels quoted by Britnell *et al* in 1997 include the pottery from the Late Bronze Age hillfort on the Breiddin (Musson 1991) and various of the late burial urns from Bromfield (Stanford 1982) as well as one with a Middle Bronze date from Pennant Melangell (Britnell 1994). Comparable collections of coarse and simple pottery were also quoted from the Peak District and the north of England, from Yorkshire to Northumberland.

The pottery from the Breiddin is well-stratified within the Late Bronze Age timber-laced rampart, from under the Iron Age rampart and Bronze Age deposits behind it (Musson 1991, 118-23). There are 47 vessels represented, but few profiles are complete. Most of the rims are simple upright rims as at Parc Cybi and there are straight-sided jars and bowls with a gently curved profile. Some of the fabrics are very coarse, which is not the case at Parc Cybi, but there are smoother surfaces amongst the bowls, comparable to the material from Area L3. However, the calibrated dates from the Bronze Age hillfort range from at least 11th to 5th centuries cal BC (Musson 1991, 195) and closer analysis would be necessary to improve the precision. Dates associated with the pottery are 1020-540 cal BC (HAR-1223) and 800-430 cal BC (HAR-1415) (95% confidence, recalibrated).

Another hillfort, Castell Odo on the Llŷn Peninsula, has pottery (some 158 small sherds) from an early phase of occupation. Its stratigraphic position under the first rampart is not in doubt, but the date remains uncertain. However, the upright and slightly everted rims are comparable to those at the Breiddin and the red, rather smoother fabric may bring them closer to the Parc Cybi material.

Another north Welsh site mentioned in relation to Glanfeinion is Rhuddlan where the major excavations of the 1970s (Quinnell and Blockley 1994, 132-9) produced a good deal of pottery but, because of later mediaeval disturbance, the context was less clear. The largest group was from a pit, C46 on site A, which contained the remains of 15 large jars, many with well-formed internally bevelled rims, and most with perforations below these rims. Fingernail slashing on cordons and incised decoration on the upper part of the jar were also present. There were no direct dates from Rhuddlan but arguments from comparable sites suggested a horizon between 1300 and 900 cal BC; before Breiddin and after Fourcrosses. This material in turn was compared to a smaller assemblage from the upper levels of the ditch at Henge B at Llandygai (Lynch and Musson 2004, 73-5) and a far smaller group from Bush Farm (Longley *et al* 1998, 230 Fig 19). The perforations or pits beneath the rim were a particular feature of these groups. The Llandygai material had a date of 1210-940 cal BC (2890 ± 30 BP (GrN-26821) (Lynch and Musson 2004, 121).

In Anglesey pottery with perforations below a simple rim, as seen at Rhuddlan, appears at the multi-period site at Capel Eithin (White and Smith 1999, Fig 28) in two very rough-surfaced jars C14 and C15. A radiocarbon date for the poorly preserved C15, which contained a little cremated bone, indicate a very late (after c. 800 cal BC³⁰) example of funerary use of this crude pottery, which is not represented at Parc Cybi. Though there is a parallel between the smoother but abrasive pottery from L3 and a pot from Pit 38, Capel Eithin with a date in the Middle Bronze Age, other parallels are not close. There are a few sherds of a very hard brown/black pottery, one with a simple upright rim, from within the 'cairn', which are relatively smooth surfaced, though containing a good deal of grit. These are broadly similar to the undistinctive 'Middle Bronze Age' material from Parc Cybi and might be contemporary since the cairn overlies a surface containing a few Early Bronze Age sherds.

Recent work on the Wylfa Estate³¹ in north Anglesey has produced evidence of two possible Bronze Age settlements. One at approximately SH 350 927 (Hotspot 14) produced evidence of a small (c. 4m) wooden round house associated with five sherds which probably were part of two Early Bronze Age Food Vessels. Other sherds excavated by Wessex Archaeology in the same area, but less clearly associated with the structure, represent two further Food Vessels. The discovery of Early Bronze pottery in a settlement context is rare but is seen at Stackpole Warren Pembrokeshire, Site A where it is found in a building, perhaps a house later associated with burial and ritual, as the site was eventually covered by structures related to the Devil's Quoit Standing Stone (Benson *et al* 1990, 185-9, 216-8).

The other Wylfa site was not far away at SH 350 933 and produced some 24 body sherds, 1 large rimsherd and 2 pieces of base. Not all are from the same pot but they share a broadly similar fabric, hard, heavily tempered with variably sized stone grits, which are visible on the surface. The surfaces are quite smooth but lumpy. The one rimsherd is rather clumsily out-turned but crisply finished and has a row of fingernail marks 30mm below it. It is very similar to Pot 7 from Glanfeinion and the Wylfa site has a comparable Middle Bronze radiocarbon date.

Cheshire Salt Containers

By Elaine L Morris and Jane Kenney

See volume 3, part I.1.4 for full report

Two contexts from different areas of the site produced examples of Cheshire salt container material. Two conjoining sherds (sf422) were found in posthole 91442, in roundhouse E, Area B2. These form a body sherd derived from the concave zone at the middle of a vessel (volume 3, Fig I.1.1.13). Three minute pieces (sf2067) of similar material were recovered from pit 05026 in pit group 25046 (PRN 31592), in Area B1, about 40m NW of the stone roundhouses.

These pieces derived from a type of ceramic container used to evaporate water from brine and transport the dried salt crystals from brine springs located in Cheshire to settlements and hillforts in the West Midlands Welsh Borderland and Wales during the second half of the first millennium BC (Morris 1985, 353-370, figs. 7-10; 1994). During the past 30 years, excavations at many more Iron Age sites in these areas have revealed dozens of additional examples of these containers throughout the area (figure 132) (Morris 1985 figs. 9-10; 1999; 2002; 2012, 2015; Evans 2012; Griffin 2012; Hancocks 2006; Philpott 2010, fig. 5.5; Powell and Mudd 2017) demonstrating an extraordinary distribution of Cheshire salt to sites from Anglesey to Nottinghamshire and from Powys to Leicestershire.

The Parc Cybi sherds display the typical characteristics of vessel form and manufacturing technique recognised elsewhere, including the flared profile of the upper part of these vase-shaped cylinders, walls measuring 12-18mm thick and bulbous mounds of clay from finger-pressing efforts by the salt makers to keep the collar/rings together. Evidence from several excavated assemblages has indicated that examples probably measured approximately 190mm tall with a rim diameter of c.180mm and base of c.95mm with rims either folded over to the interior or simply rounded (Morris 1985, figs. 7-8; Britnell 1989). These vessels were industrial ceramics; practical, functional containers with flaring profiles that allowed for steady evaporation of water from brine and a construction method that held together during brine processing and transportation of the salt but were easy to crack open when necessary to extract the salt.

30 CAR-455 2530±70 BP (810-430 cal BC at 95% probability)

31 Horizon Plc, Iwan Parry of Brython Archaeology and Cat Rees and Matt Jones of CR Archaeology kindly gave permission to mention these sites before final publication

The examples found at Parc Cybi reinforce this dynamic network of contacts between Wales and the Midlands during the Iron Age, and provide tangible evidence for this connected world. The presence of small fragments of this type of ceramic in pit group 25046 (PRN 31592) supports the Iron Age date for these pits. These pieces indicate that the acquisition, fragmentation and incorporation of salt container sherds into deposits occurred at both the main settlement and at other occupation sites.

Roman pottery

By Peter Webster

See volume 3, part II for full report and figures

Fig II.1

The assemblage of Roman pottery is small with most sherds being small and most contexts only producing only one or two fragments. The material is spread both in terms of context and date, though there is a concentration of finds from Area K9. Chronologically, only a limited number of vessels (29) are capable of reasonably precise dating within the Roman period. No sherds need be first century and South Gaulish samian (imported up to c.A.D.110) is totally absent. There is, however, both samian and Black Burnished Ware of second century date. There is pottery likely to be of the third century and the Black Burnished Ware series certainly runs into the fourth century.

If the sample size for an overview of this large site is a small one, then that for any specific feature or area is inevitably even smaller, but the majority of the Roman pottery came from the building complex in Area K9 (PRN 31596), with the square stone building (structure 80526) and the clay-walled structure (structure 80527). Here, the majority of the ceramic finds are Black Burnished Ware with such a preponderance of 3rd-4th century jars as to be unusual. Normally one would expect more bowls and dishes and a rather limited cuisine or some specialized use seems to be implied. The small number of diagnostic rims makes precise dating difficult but the lattice decoration gives a broad outline of the date, and most vessels date between the mid third and the early-mid 4th century. However, there are also a number of second century pieces, all Central or East Gaulish samian ware. All but one of these came from the clay-walled structure (80527), from the upper demolition layers or from cleaning over the top. The one exception (sf6165) came from a fill of pit 81041 in the middle of structure 80526, along with the base sherd of a grey Ware bowl (sf6164). The samian sherds are the only fineware from the area, apart from two small sherds possibly from a mortarium and a flagon (sf6016 and sf5701). A sherd from a flanged bowl (sf6011) and a small Black Burnished Ware sherd (sf6015) may also be 2nd century. These are also from demolition deposits (80844) from structure 80527.

The samian poses a problem. In common with the other three pieces from elsewhere on the site it is restricted to two bowl forms, 31 and the decorated 37. The eroded condition of the samian Ware sherds and their presence in the demolition deposits of structure 80527 could suggest that they were incorporated into the clay wall of this structure and originated from Antonine occupation nearby. However, in this case, one would have expected to see more certainly second century coarseware present. Could it be that these are antique and perhaps second-hand vessels still in use in the mid-late third century and another indicator of the unusual character of the pottery in this area?

The samian pottery originates from Central Gaul with one sherd from Eastern Gaul. The Black Burnished Ware is from Dorset and other sherds were from Oxford, Cheshire, Wroxeter and Mancetter-Hartshill. In terms of trading connections, the collection is not unexpected for the region. The far reaching nature of Roman trade is evident as is the way in which North Wales drew from both northern and southern Britain in the later Roman period. However, the total absence of amphora shows how selective the Parc Cybi residents were in their choice of available pottery.

Medieval pottery

By Jon Goodwin

See volume 3, part III for full report and figures

The assemblage of medieval sherds was very small and was present in three fabric types. The most common type is a sandy fabric with an abundance of well-sorted, rounded and sub-rounded quartz inclusions. The fabric colour

is typically pale orange with a reduced grey core and interior surface with a green or brown glaze. Of vessel types there are present at least one bowl with a glazed interior and a large jar with an applied thumbled strip below the rim (sf156 (volume 3, Fig III.1)). The fabric has some affinities with wares produced from the fluvio-glacial clays of the Cheshire plain and north Clwyd (Courtney and Jones 1988, 10). Locally-produced quartz-tempered sandy redwares found in Montgomeryshire and Breconshire have a similar fabric composition and range of colours (Knight 1990/1, 8-9). These comparable wares were recovered from 13th-century contexts.

All sherds of this fabric were recovered from Area B2, some from the ploughsoil over the roundhouse settlement but sf156 was from the fill of pit 90310 and sf163 (volume 3, Fig III.1) was from the fill of pit 90423. These pits formed part of a group of elongated pits that were assumed to relate to the Pen y Lôn farmstead, but these two sherds hint at much earlier, 13th century activity in this area. The scatter of three other sherds of similar fabric over Area B2 supports the idea that there was medieval activity in this general area. A tiny sherd of a moulded glass vessel from pit 90254, near pit 90310, may also be medieval in date.

Two conjoining jug sherds (sf305 (volume 3, Fig III.1)) are of a fine pinkish-white fabric with rare rounded quartz inclusions. A pale yellowish-green glaze is present on the exterior and interior surfaces, although coverage of the latter is patchy. This fabric appears similar to 13th to 15th century iron-poor, coal-measures clays with green to amber-yellow glazes identified from excavations in Powys. Coal measures fabric from Pool Road, Montgomery (Courtney and Jones 1988, 20) was thought to derive from Shropshire, with comparable wares (fabric B.9) recovered from Montgomery Castle attributed to a similar source (Knight 1990/91, 9). This latter fabric seems to have had a wide distribution area, which included Worcestershire, Staffordshire, Cheshire, Montgomeryshire, Flintshire and Gwynedd. This sherd was also from Area B2 and supports the medieval date for some activity here.

The third fabric was represented by one small sherd with a fine sandy fabric and a brown glaze on the interior (sf46). This was from one (01066) of a group of stakeholes next to a pit (12003) in Area B3. The pit contained a sherd of a mortarium, suggesting a Roman date, so it is likely that the stakeholes were from a small isolated agricultural feature.

Post-medieval pottery and glass

By Jon Goodwin

See volume 3, part III for full report and figures

The majority of the ceramic assemblage is from ceramic vessels, with the exception of some sherds of a decorative 19th-century chimney pot. The material is dominated by coarse earthenware vessels, in a limited range of vessel forms, most commonly pans or storage jars. The fabrics are typically hard and iron-rich, ranging in colour from orange to reddish-purple, though a small number feature buff fabrics. Many of the iron-rich coarse earthenware fabrics are characterised by the presence of white or cream laminae within the ceramic body; a trait often attributed to 17th- and 18th-century coarsewares produced at the Buckley potteries in Flintshire (Davey 1987, 98). Similarly laminated fabrics were, however, produced in Prescott, south Lancashire (McNeil, 1982/83, 59; Davey 1987, 98) and both production centres were distributing their wares into north-west Wales by the 19th century (Davey 1987, 98).

The date range for the coarse earthenwares is potentially quite wide, as the Ware was produced in a relatively static range of utilitarian forms from the 17th to 20th centuries. A small number of dense, highly-fired sherds have some affinities with Midlands Purple Ware and may represent transitional 17th-century wares. Similarly, the buff coarse earthenwares are comparable in terms of fabric colour and consistency with some of the late 17th- to early 18th-century slipwares from the assemblage.

Other post-medieval coarsewares within the assemblage include a possible transitional Cistercian/blackware cup sherd (sf179 (volume 3, Fig III.1)), perhaps of mid-17th-century date and a single mid-late 17th-century blackware fragment, again from a cup. Fragments of a 17th-century Midlands Purple Ware jar are present (sf2122 (volume 3, Fig III.1)) and late 17th- to early 18th-century press-moulded slipware vessels. Mottled wares of a similar date appear as bowls and a possible mug. A buff-bodied, slip-coated Ware bowl dates from the first half of the 18th century.

Eighteenth and 19th-century refined wares are well-represented within the assemblage. There are single examples

of early to mid-18th-century dipped and white salt-glazed stonewares. Mid-18th-century redwares with applied slip are present and undecorated creamwares, mainly dating to the early 19th century, appear in several contexts in a limited range of tea and tableware forms. Pearlwares and white-bodied earthenwares are, however, by far the most common refined wares in the assemblage. Pearlwares, with their distinctive bluish lead glaze and white ceramic body were produced throughout the late 18th to the mid-19th centuries, although all the Parc Cybi examples seemingly belong to the latter part of this period. Tea and tableware forms (saucers, bowls, plates etc.) are present, most of which feature either under-glaze transfer-printed or painted decoration.

Whitewares, characterised by their clear lead glazes and dense white fabrics, were produced from the second quarter of the 19th century onwards. Tea Ware forms predominate, with cups, bowls and saucers present. Table Ware forms are mostly plates, whereas toilet wares are represented by single sherds of a wash basin and a possible ewer. Only a few mid-late 19th-century bone china sherds are present, typically representing cups or saucers. Yellow wares are few in number and are limited in their forms to bowls, a chamber pot and a dish. Mid-late 19th-century red earthenwares, blue-bodied earthenwares and late 19th-century majolica are represented by only one or two sherds.

The production source of the refined wares is difficult to pin-point with any certainty, as many centres produced such material in a standard range of forms and marketed their goods widely. North Staffordshire is perhaps the most obvious candidate for the wares, although Welsh potteries such as Swansea and the factories of Liverpool and Bristol could equally have been responsible for the material.

Forty-one clay pipe fragments were recovered, mostly undecorated stem fragments, probably of 19th-century date. Of the small number of bowls present, three are decorated, two of which have foliate moulding on their seams. The latter of these examples also features a moulded stag on the bowl body. The remaining decorated bowl is the most complete example within the assemblage and features a moulded harp and shamrock design (sf2158 (volume 3, Fig III.1)). This motif was common during the late 19th century and although it may suggest an Irish production source, variations on the harp and shamrock design are known to have been produced in mainland Britain, possibly for Irish Republican supporters during the Home Rule debate of the late 19th and early 20th centuries (Green 1991 48-49).

Sixty-nine glass fragments were recovered. The assemblage comprises bottle sherds, window glass, three vessel parts, two beads, and one button. Most of the material that is datable belongs to the 19th century, although a number of items may well be earlier. These include a small fragment of an apparently mould-blown green glass vessel with decorative bosses that may be medieval or early post-medieval, and two faceted glass beads of unknown date.

Most of the post-medieval finds are from ditches, furrows and land drains or from the ploughsoil, with occasional finds in isolated pits. There were no dense concentrations of finds suggesting dumps of rubbish and most of the material is suggestive of material from manuring the fields or small scale, casual rubbish disposal. Very occasional pieces had been incorporated into earlier deposits through disturbance and animal activity. Some of the features relating to the farmstead of Pen y Lôn contained post-medieval pottery and glass but the numbers of pieces were low and many features of probable post-medieval date from this area contained no pottery. One of the robber trenches dug to remove stone from roundhouse E (91225) contained the most pottery (11 sherds) dating to the mid and late 19th century. The assemblage as a whole represents the type of material used in the small farms in the vicinity. The scarcity of pottery before the late 18th century is suggestive of the poverty of the farms before that period, or at least their limited trading connections. By the 19th century a wider range of pottery is available, including some fine wares, probably reflecting cheaper mass produced pottery and easier access to pottery from the English Midlands and elsewhere.

Roman Glass

By Hilary Cool

See volume 3, part IV for full report and figures

Three fragments of vessel glass, four beads and one counter were recovered (volume 3, Fig IV.1). The vessel glass can be broadly dated to the first to third centuries but each fragment shows re-working indicative of the pieces not having been used on site as vessels, but rather have been exploited at raw material. The beads include one frit melon bead of first to second century date and the counter is likely to be contemporary with that.

The vessel glass appears to represent the reprocessing of glass rather than the use of glass vessels on this site. Sf019 is a fragment of a blue/green prismatic bottle, a very common type of glass container in use from the later first century to the earlier third century. This fragment is triangular and the short edge preserves a sharp cutting edge. The use of bottle fragments as raw material to be flaked like flint is a regular feature of Romano-British glass assemblages. This fragment does not show the careful flaking as often seen, but it could well have been present on the site as a result of this type of use. Sf164 is a rim fragment of a blue/green vessel that had an out-turned folded rim, probably from a jar or a bowl. The blue/green colour would indicate a first to third century date. The folding of the rim has left a small void running through the length of the piece. No deliberate evidence of cutting or flaking can be seen, but the piece is so regular that it might be surmised that this fragment has been re-used as a bead. The third fragment (sf016) is also a very regular rectangular body fragment that has been subject to heat so that all the edges are now fire-rounded. Again the combination of features is unusual on accidentally broken fragments, possibly suggesting that the fragment was being exploited here as raw material to manufacture other glass items such as beads. The re-use of blue/green vessel glass for the manufacture of such items has been suggested at Cefn Cwmwd on Anglesey where melted glass waste was also found (Cool and Bevan 2012, 152) and at Parc Bryn Cegin where only the blocks prepared for melting were recovered (Kenney 2009, 92).

All three pieces of vessel glass came from Area B2; sf016 and sf019 from the ploughsoil over roundhouse A and a little west of the settlement, and sf164 from a pit (90425). Pit 90425 was part of a group of pits, many elongated, in the eastern part of the area, which are interpreted as being post-medieval in date, although occasional medieval artefacts were recovered from them. Sf164 was therefore presumably residual in this context. The wide scatter of these few pieces means that it is not possible to identify a focus for glass reworking and it is possible that these pieces came from elsewhere and were distributed in manure spread on the fields. They certainly post-date the roundhouse settlement by several centuries, unlike the examples at Cefn Cwmwd and Parc Bryn Cegin where glass working appeared to be taking place within or close to roundhouses that were used into the Roman period.

Of the three deep blue beads, sf5388 is a small annular bead of an extremely long-lived type that occur in contexts dating from the sixth century BC into the eighth century AD (Guido 1978, 67 Group VI_{iva}) so it could be contemporary with the Iron Age date for its context, a floor deposit within roundhouse I (92946). This is the only one of the glass items that can be directly related to the roundhouse settlement and one of the very few objects suggesting the use of personal ornament by the occupants of the settlement.

There are many problems dating minute beads such as sf1291 as they have only started to be found with the advent of regular environmental sampling, and of course being so small can easily be displaced in the soil by worm activity etc. They are sometimes found in Roman contexts. A range in a variety of colours was noted at Segontium in second to very late fourth century contexts at Segontium (Allen 1993c, 227 no. 63). They were also encountered in some numbers in seventeenth century and later contexts at Chester where they could be interpreted as materials for beaded embroidery (Cool 2008a, 302 nos. 19-22). Sf1291 came from the upper fill of pit 10001, part of Group 25046 in Area B1. This pit produced both a sherd of Bronze Age pottery and a radiocarbon date of 60 cal BC–cal AD 70 (SUERC-83280). It seems highly unlikely that the bead is of a Bronze Age date because glass is an extremely rare find so early. The other two dates from this pit group suggest late Iron Age and Early Roman period activity as do fragments of Cheshire Salt Containers, so the bead probably belongs to this period, although its small size makes it possible that it is much later and intrusive.

Sf6464 is a fragment from what was probably a globular bead. During the Roman period such beads are commonest in the fourth century, though they are occasionally found in the second and third centuries. It should be noted though that relatively undiagnostic globular beads have a long history appearing again in the late post-medieval and modern periods so a fragment such as this cannot be assigned to the Roman period with total certainty. However, a fourth century AD date fits with the context in which it was found, a layer within the later reuse of structure 80527 in Area K9.

The final bead (sf001), unfortunately found unstratified but located just south-east of roundhouse B, is the most closely dateable item to be considered here. It is a frit melon bead in use in Britain on Roman sites between the mid first and mid second century (see for example Crummy 1983, 30). On military sites of that date they are extremely common and such a site may well have been where this example originally came from, but there is no way of knowing how long such an exotic item might have been curated. Frit melon beads generally show high degrees of wear with much of the glaze worn off and it is rare to find a melon bead where the glaze is so well-preserved as on sf001. This may indicate that it was carefully looked after as a special object, perhaps a talisman,

and might possibly have come from the suggested settlement that may exist in Area K5, which is proposed to have continued into the Roman period.

Sf6175 is a plano-convex object with a smooth upper face and a pitted lower face. This is the shape of purpose made glass counters and these often have pitted bases like that of sf6175 (see for example Crummy 1983, 92 fig. 95). Sf6175 was found within structure 80527 in Area K9 where there was evidence of industrial activity and it was initially suggested that this was a waste droplet. However waste on glass working sites does not normally form this regular shape and so the item should probably be regarded as a finished object. Gaming counters are another artefact that is very common on military sites, but Roman glass gaming counters tend to be larger. The set (or sets) found in a late first century cremation burial at Gloucester show the normal range of sizes (Cool 2008b, 106, Table 5.2). As can be seen there, though small counters of 13mm diameter are known, the average diameter is 15-16mm. Not only is this 'counter' smaller than the normal gaming counters but it is also an unusual colour. It is made of translucent deep blue glass with a small amount of opaque white visible. Roman glass gaming counters of the first to second centuries are overwhelmingly either 'black' or white. The rare occurrences of other colours are made in opaque glass, not translucent as here. It is uncertain whether the bichrome nature of the piece was deliberate as there is no attempt to make any decorative pattern and only a very small amount of white glass is present. The appearance might have come about if polychrome vessel glass was being re-used. The deep blue glass vessels decorated with opaque white marvered streaks and dots are which not uncommon in Claudio-Neronian or early Flavian assemblages might produce the effect seen here. It is very possible that this piece is of local manufacture, just as the similar 'counter' from Parc Bryn Cegin appears to be (Kenney 2009, 92). That too was unusual in being made of blue/green glass, though at 15mm its diameter falls more into the normal size range for Roman glass gaming counters. What these local 'counters' were used for is unknown, but sf6175 is certainly of a size and colour that would be appropriate for a setting in an item of jewellery.

Knapped stone

By George Smith and Jane Kenney

See volume 3, part V for full report and figures

The knapped stone assemblage comprises almost 2000 pieces from across the site, though certain areas, particularly the Early Neolithic activity in Areas E and H dominate the collection. The raw material used is mostly flint and chert. The flint used is generally small pebbles, probably from the local beaches. The chert is also mainly from cobbles from the glacial drift or the beaches. Black chert was used throughout the Neolithic period and probably later at Parc Cybi but generally it was less used than flint, with the exception of the Early Neolithic timber building in Area H, where much more black chert was used than flint. The assemblage from old land surface under the nearby Trefignath chambered tomb was also predominantly of black chert. In contrast the Early Neolithic temporary occupation activity in Area E used mainly flint, emphasising a difference between these two sites not seen in the pottery from them.

Other types of stone were used on a much smaller scale but they are of considerable significance. Clear crystal quartz was knapped and occasionally retouched to produce very small tools. Usewear analysis has demonstrated that some of these pieces have been used, for cutting and scraping. Most of the quartz crystals were found in the Early Neolithic building, with a small number being found in the temporary occupation in Area E, including a core, and few pieces from elsewhere on the site. The nature of the tools that could be produced from these tiny pieces can only be speculated on, but they were presumably hafted in composite tools similar to microliths, which the retouched examples resemble. It is hard to believe that the use of this material was a practical choice; even the smallest beach pebble would have been easier to work. Suitable quartz crystals can be found quite widely in Snowdonia but they have to be searched for in eroding scree slopes, and most of the crystals that can be found are small. However this is an extraordinary material, completely transparent, and comparable in Neolithic terms only to ice that never melts. Sourcing the quartz from the mountains of Snowdonia may also have added to its perceived significance. This material was also used in the Neolithic building at Parc Bryn Cegin (Kenney 2009, 25) and in the Early Neolithic buildings at Llanfaethlu (Cat Rees, CR Archaeology, pers. comm.). The massive Neolithic structures at Dorstone Hill, Herefordshire have produced about 300 pieces of quartz crystal. This assemblage is currently being studied but the current theory is that this material used at Dorstone came from Snowdonia (Nick Overton, University of Manchester, pers. comm.). This may have been a significant and symbolic material used on many Early Neolithic sites, particularly rectangular timber buildings. Killian Driscoll (Driscoll and Warren 2007; Driscoll 2016) has been studying the use of quartz on Mesolithic and Neolithic sites in Ireland but has

concentrated on vein quartz, as a practical alternative to flint, and the probably quite different use of crystal quartz still requires much study in Britain and Ireland.

Flakes of Graig Lwyd (Group VII) stone were also found, again almost entirely in the Early Neolithic building, though one piece was recovered from Early Neolithic activity in Area M and another from pits containing Fengate Ware in Area J. Most of the Graig Lwyd stone appeared to be from stone axes, mostly deliberately flaked, rather than broken in use or from sharpening the axe blade. It has been suggested that flakes from axes buried in pits at Parc Bryn Cegin, Llandygai may have been the result of ritual destruction of axes (Williams *et al* 2011, 270-271). However, in the present case the flakes are scattered as if casually lost rather than deliberately buried and some have been found to have usewear, mostly as expedient cutting tools, so the axes seem to have been used as a source of stone for flakes for practical purposes.

Mesolithic period lithics were rare and widely scattered, suggestive of casual losses, although in Area H one isolated feature contained a few pieces and these may indicate a short-term focus of activity. Parc Cybi appears to have been little used in the Mesolithic period, with occupation presumably concentrated closer to the coasts.

The assemblage from the Early Neolithic timber building consists of 725 pieces, of which 422 were black chert and 226 were flint. The assemblage also includes a small number of pieces of worked crystal quartz and Graig Lwyd flakes. The flint and chert were used quite differently. The flint originated as small pebbles, which were mainly worked initially by splitting on an anvil, producing 'bipolar' flakes, and scalar pieces. However, most flakes and flake fragments are not bipolar or scalar so, where available, larger pebbles must have been split to produce a striking platform and then flakes removed in a normal manner. The small size of most of the available flint raw material and the manner of its working meant that most flakes were quite broad, unlike the narrow, blade-like flakes expected for an Early Neolithic assemblage. The black chert is very variable in quality although more easily available than flint and in larger pieces. Most came from pebbles from the drift, but some was tabular and may have been sourced from *in situ* deposits on Anglesey. The chert varies in texture from fine to coarse, the finest being flaked almost as well as flint but this is rare and the majority is coarse. This can only be worked by heavy impact, and then often breaks in an uncontrolled way, which results in many irregular waste pieces. Subsequent working is restricted to choosing flakes with suitable sharp edges, which are then edge-retouched, rather than used to create particular tool shapes.

There are surprisingly few cores compared to the quantity of waste, which suggests that most primary working did not take place within the building. The flint cores are very small, reflecting the size of available pebbles and the chert cores are either part worked pebbles or irregular blocks, one small chert core, however, had produced some blades.

The assemblage of retouched pieces is dominated by edge-retouched knives and scrapers; the knives mostly on black chert and the scrapers on both flint and chert. There are also piercers, nosed pieces, spurred pieces, a serrated piece and a bifacially retouched piece of flint, which could be the tip of an ovate knife (sf4412). The most distinctive piece (sf1117) is a bifacially retouched knife, made on a broad flint flake, though it could be a blank for an unfinished leaf-shaped arrowhead, rather than a knife (volume 3 Fig V.1.3). The use of chance shapes and of casual retouch and frequent utilisation of flakes shows how utilitarian the assemblage is. It is also certainly domestic in nature, with a variety of tool types, though with an unusually low number of scrapers compared to cutting tools. Serrated pieces are characteristic of Early Neolithic assemblages, but here there is only one, although functionally their place may have been taken by the edge-retouched knives. The lack of arrow points is also notable. The small number of scrapers suggests that little hide preparation was being carried out. Amongst the tools of other stone, only one heavy chopping tool was found and no spindle whorls, suggesting that there was little use of animal products at all. The lack of projectile points, the predominance of cutting tools, and the types of wear found on them could accord with an emphasis on processing of plant products such as reeds or willow for basketry or fish traps, or of fibrous plants for cordage for fishing or thatching.

There were 50 flakes and fragments of crystal quartz, including one utilised flake (sf3066). Sf3066 is a larger than usual flake of crystal quartz. It is a short, broad triangular flake, with microchipping on one edge and around its point (volume 3 Fig V.1.8). Another flake of crystal quartz (sf1198, Fig.V.1.8) was examined for use wear and shown to have been used for scraping. No stone axes were found in or around the building but twelve flakes or fragments of probable axes were found, ten of Graig Lwyd rock, one of grey chert and one of flint. These were mainly distinguished by the presence of facets with grinding/polishing striations and were quite small flakes and not transverse, axe re-sharpening flakes. There was no evidence that they had been chipped from the edge of an

intact axe, so more likely were the result of taking flakes from a broken axe or axes. Two of the Graig Lwyd flakes showed possible utilisation, and the flint piece also appeared to have been utilised (sf1671.1, volume 3 Fig. V.1.2).

Repeated temporary Early Neolithic occupation was represented by activity in a natural hollow in Area E. Considerable quantities of lithics, mainly flint, and pottery were present in a relict soil, and in related features, though fewer lithics than pot sherds were found in the features. The lithics, overall, indicate a living area, with a range of domestic tool types. The assemblage included relatively few blades for an Early Neolithic assemblage but this can perhaps be put down to the small size and quality of the available raw material. This assemblage is distinctive for the near absence of chert pieces, in contrast to the Early Neolithic building in area H and to the Early Neolithic activity at the Trefignath chambered tomb, where chert predominates numerically. There is more evidence of flint working in Area E than in the timber building, with four cores and a fair number of waste pieces, but still quite a high proportion of retouched and utilised pieces, and most notably a large number of utilised pieces. The knapping is also distinguished by a high proportion of scalar worked pieces and in this it is similar to the assemblages from the Early Neolithic activity in Area H and at the Trefignath chambered tomb. The retouched pieces are dominated by cutting tools, whereas scrapers usually dominate most domestic lithic assemblages. This may have some bearing on the activities within this area, for instance fibre and net-making as opposed to animal hide preparation.

Several of the larger retouched pieces, including edge-retouched knives, are made on quite large flint flakes. These larger pieces are made from a light grey flint, rather different to the more usual yellow-brown or mid grey pebble flint found at Parc Cybi. This suggests that a different source of raw material may have been known than the locally available small pebbles, but these pieces could all have come from one large nodule. There is one fragment of a possible transverse, chisel or oblique arrow-head (sf5256, volume 3 Fig V.1.5), which is too small to confidently identify, but might fit with the Beaker period activity that is also represented here by a few pot sherds and a radiocarbon date.

Usewear analysis gives some hints of Early Neolithic harvesting technology. A long blade (sf5373/5364, volume 3 Fig V.1.5) from the temporary occupation in Area E showed considerable polish and gloss development on both edges, with transverse and parallel striations. This indicates that the tool was used for the harvesting of grasses, i.e. plant material with high silica content. The large amount of polish development on sf1724 and 2219 from the Early Neolithic building also suggests use for cutting silica containing plants. The grasses harvested may not have been cereals but this is a possibility. Unfortunately none of these pieces provided evidence of how they were hafted.

The Middle and Late Neolithic pit groups produced fairly small assemblages of lithics of a domestic character. The pit group in Area D3, probably representing the location of a small structure, contained a fragment of what may be a chisel arrowhead (sf1963.8, volume 3 Fig. V.1.6), appropriate to the context with Grooved Ware pottery. Usewear showed tools had been used for scraping and cutting medium to medium soft material, such wood, dry hide or fibrous plants. The pit group with Fengate ware in Area Ia contained a fragment of what might be a transverse type of arrow-head, perhaps an oblique form (sf1565.1, volume 3 Fig. V.1.6). The other retouched pieces from this group are not usefully diagnostic of period but much more flint is used than chert and there is relatively little waste, although there was definitely some knapping taking place. The absence of convex scrapers, usually taken to be an indicator of domestic activity, with the presence of several cutting tools, a hollow scraper and a possible arrowhead could indicate that the pits were mainly hearth pits forming the focus of a short term camp-site rather than a longer term settlement.

The pits in Area J containing Fengate ware (PRN 74831) produced a large, thin flake from a polished axe of Graig Lwyd rock. Use wear analysis showed that it had been re-used as a cutting tool. The knapped flint and chert retouched pieces from this pit group also consist entirely of cutting tools and one of the utilised pieces was also a cutting tool. Again there was a lack of scrapers, suggesting possibly non-domestic activity. The unusually high proportion of retouched to waste pieces, together with presence of the axe flake is distinctive and could suggest some kind of special deposition. Pit group PRN 31573 in Area K9 produced lithics almost entirely of flint, and black chert was generally used much less in the Middle and Late Neolithic than in the Early Neolithic.

A large, leaf-shaped arrowhead (sf912, volume 3 Fig. V.1.5) was found under a small burnt mound dated to the Late Neolithic period (2870–2580 cal BC (SUERC-81353) and 2890–2670 cal BC (SUERC-83279)). Use wear examination identified hafting wear and possible traces of resin hafting cement. Leaf-shaped arrow-heads are mainly an Early Neolithic type, but do also occur in Middle Neolithic contexts. In Wales leaf-shaped arrowheads

tend to be small, probably because of the small size and poor quality of the locally available raw material. The large size of this arrowhead therefore is exceptional and suggests that it is an imported object or one manufactured from imported flint. The indication is that large leaf-shaped arrowheads are non-utilitarian 'fine' objects, destined for special placement, such as with a burial. Its presence here is therefore hard to explain as it was not in a pit or with any other associated objects of note. It seems to have been incorporated in the buried soil before the burnt mound was deposited and may have pre-dated the mound by some time, but the presence of this special object remains unexplained.

A substantial number of knapped stone pieces were found around and within the roundhouse settlement in Areas B2 and F1 (figure 133). Most of this material was residual in the contexts in which it was found, and there are no features that might suggest later use or re-use as part of the Iron Age settlement. The number and range of items suggested that somewhere here was a focus of earlier prehistoric activity. The assemblage is of a domestic nature with little evidence of on-site lithic working. Most notable is the presence of numerous retouched pieces but very little waste material, while there are also several cores.

None of the pieces allow close dating, but there are relatively few objects of black chert and very few scalar pieces, which suggests a period of activity later than the Early Neolithic. All of the complete flakes of flint and chert are broad, none of blade or narrow blade proportions, also suggesting a date later than the Early Neolithic. The radiocarbon dating programme for this area has probably revealed the source of this material, as features located within roundhouse A proved to be of Late Neolithic or Beaker period date. There appears to have been a small structure with a hearth and numerous other postholes and pits. These features themselves contained little material, most of the pieces recovered were natural and unworked, though there were a few fragments of black chert, including a core fragment. It does seem probable that the knapped stone recovered from the general area was from this activity.

The most notable lithic find from later contexts on the site was a bifacially retouched knife (sf6148, volume Fig. V.1.9) from the 4th century AD structure 80527 in Area K9. The knife is made on a thin blade with fine invasive flaking to thin and shape it, plus steeper edge retouch on the non-bulbar face. It also has a small amount of fine invasive flaking on the bulbar face to thin the tip. The careful thinning could have been done to facilitate hafting as part of a composite cutting tool. The use wear study showed it to have been used for cutting on the two lateral edges, probably on medium soft material such as grasses or cereals, with some development of gloss, which would support its interpretation as part of a harvesting sickle. The knife was found in the floor layer of this industrial structure but shows no signs of damage as might be expected if it was residual. It is possible that it was a found piece that had been collected from elsewhere and brought into the house as an attractive souvenir or even for use, flint being harder and sharper than iron. Its invasive flaking sets it apart from most of the Early Neolithic flint retouched cutting pieces from the building in area H so would fit best with some of the Later Neolithic activity in Area J. Although finely worked it does seem to have been made from locally available flint.

Other worked stone

By George Smith

See volume 3, part VI.2 for full report and figures

This collection of 263 objects is unusually large and therefore useful; the largest component of the assemblage coming from the main roundhouse settlement. The raw material derives from cobbles or pebbles from the local drift, the local green schist bedrock and deliberately imported material, including conglomerates from Anglesey, Graig Lwyd stone from Penmaenmawr and fine sandstone from an unidentified source.

The largest group of objects by type was that of the utilised pebble/cobble/boulder tools, and the second largest group was the spindle whorls, coming mainly from the roundhouse settlement in Area B2. Area B2 and the roundhouses in Area K7 also produced a number of larger perforated discs or slabs. The Roman period activity in Area K9 produced a wide range of objects, including various types of quern.

Outside these areas the number of worked stone finds was low. The Early Neolithic temporary occupation in Area E produced very few worked stone objects but did include a piece of a pebble of very decorative, polished banded agate, of amber-like golden brown (sf5021, volume 3 Fig. VI.5.1), possibly part of a simple macehead. Simple pebble mace-heads occur in the Later Mesolithic but more refined and often decorative mace-heads are of Later

Neolithic date and thought to have been non-functional, special items (Roe, 1979). The rock type used for this example is a semi-precious stone, rare and likely to have been imported from some distance. If it was broken here, one would expect other pieces of it to have been found.

The most significant objects found in the Early Neolithic timber building in Area H were a saddle quern fragment and a large mortar fragment. The saddle quern, sf1202 (volume 3 Fig. VI.1.4) is a large natural flat boulder of medium grained dolerite that has been worn into a wide facet by use. The remaining part is about half of its original size. The mortar fragment, sf1204 (volume 3 Fig. VI.1.6), is a similar large natural flat boulder, but of fine sandstone, with an approximately flat base and a shallow natural concavity that has subsequently been utilised. The bowl is so wide and shallow that it could be described as a bowl quern, worked by a rotating rubbing action, rather than back and forth like the saddle quern. The quern fragment was found face down in a large pit in the centre of the building, and seemed to have been a deliberate deposit. The broken mortar was found in the upper fill of a post-hole of the building and was also likely to have been deposited there deliberately. The building also contained a small number of utilised stone objects including small grinding slabs and rubbing stones, but only two hammerstones, despite the quantity of knapped stone found.

Pit group PRN 31572 in Area Ia contained a fine perforated mace-head (sf1145) made by modification of a cobble of fine sandstone (volume 3 Fig. VI.5.1). It is ovoid in plan with a slightly flattened 'working' end, 98mm long by 68mm wide and 37mm deep. The perforation is central lengthways but set towards the end away from the 'working' end. The perforation is slightly hour-glass in section but otherwise very neatly circular, from a maximum of 29mm diam., to a minimum of 22mm diameter. The stone is probably not very strong, so was probably chosen for its shape and easily worked quality. However, the 'working' end does have multiple pecking marks from some light use. The object is a type identified as of Neolithic date and of Ovoid - Class C mace-head, as classified by Roe (1979). A modified pebble, possibly an unfinished mace-head (sf1172, volume 3 Fig. VI.5.1) came from another pit in the group. It is a distinctive, natural, but perfectly rounded oval cobble of fine sandstone with small, opposing, pecked cup-marks on two faces. These could have been an unfinished perforation or as an aid to hafting in their own right.

The overall assemblage of stone objects from the roundhouse settlement in Areas B2 and F1 (See Figure 134 for distribution) is characterised by the presence of large numbers of utilised stone tools, which demonstrate a high level of craft activity within the houses. The more individual items are dominated by spindle whorls (discussed below). The utilised stone tools are numerous and varied and demonstrate a significant level of craft activities in all the houses, except roundhouse D, perhaps suggesting that this was a purely domestic building or a store. Of the structures in the southern part of the settlement Roundhouse I contained most objects suggesting a focus of craft activity there. This was made clear by the presence in the floor of the house, of a large stone block, a working stone or anvil.

The types of tools represented seem to show a greater level of activity than expected in a purely domestic, self-sufficient economy. They include chopping, hammering, grinding and polishing as well as two mortars created on sandstone cobbles (sf226, from roundhouse A and sf506 from roundhouse C (volume Fig. VI.1.5)). Roundhouse B had an exceptional selection of tools, with over twenty utilised stone tools including an exceptional ten working slabs. This type of stone, e.g. sf208 (volume 3 Fig. VI.1.6) from roundhouse A, of fine sandstone, was used mainly for grinding and polishing. Roundhouse B also contained seven smaller polishing stones and one unusual item, a large split piece of naturally cuboid boulder of dolerite (sf552, volume 3 Fig VI.1.11). This was about 250mm square, of sandstone, into one face of which a cup mark concavity, 59mm diameter had been pecked, and another, similar, 74mm diameter, on another side, perpendicular to the first. It seems likely that this large and heavy object had been used as an anvil or hold fast in which the cup mark provided a pattern or rest. The stone was built into the platform for Roundhouse B, where it seems to have just been re-used as construction material and so belonged to an earlier phase of activity. Roundhouse E also had another large cuboid boulder, sf652, set into the ground close to its wall on the north-west side. This had some wear polish on its upper surface and was clearly a working slab, whether for food preparation or some craft activity, but not the deeper wear that would have been created by use as a quern.

There were three other unusual and unclassified objects. These are stones with opposed cup-marks. One is from Roundhouse E and is a flat, approximately circular cobble of sandstone, sf753, 129mm diam. and 34mm deep, with shallow cup-marks pecked on each face, although not exactly diametrically opposed (volume 3 Fig. VI.1.10). There is no wear evidence to show how it might have been used. The second (sf239), from structure F, is a similar but larger, sub-rounded cobble of dolerite, also with cup-marks in each face but again, not exactly diametrically

opposed (volume 3 Fig. VI.1.10). Again there is no wear evidence to suggest a function. The third object, sf131 (volume 3 Fig. VI.5.1), came from the medieval ploughsoil above structure F and is rather different than the other two double cup-marked stones. This has larger and directly opposed cup-marks and is much smaller, 67mm diameter and 43mm deep. It is made from fine sandstone, seemingly by modification of a suitable pebble. It was carefully pecked around the perimeter to produce a drum-like shape, but retaining some of the original pebble surface. This object is more neatly made than the two stones described above and is in size is similar to a mace head, although the cup marks are clearly not part of an unfinished perforation.

The quantity of other stone objects, mostly tools of various kinds, suggests an almost industrial, rather than domestic, scale of activity at the settlement. If that is so, then it shows that some kind of trading must have been taking place. Apart from the possibility of spindle whorl manufacture there is no evidence of any other specific type of activity taking place.

There were two saddle quern topstones, sf 288 and sf647, one from roundhouse B, one from structure F, both of breccia, probably originating in Anglesey (volume 3 Fig. VI.1.4). Generally though, the lack of querns, with only two saddle quern rubbers, and two mortars, one of dolerite (sf774) and one of sandstone (sf825) (volume 3 Fig. VI.1.5 and VI.1.12), is remarkable, since querns and mortars are a frequent component within excavated roundhouses in North Wales. This is possible evidence that the houses were dismantled or at least deliberately abandoned and valuable objects such as querns removed. Alternatively, it could be that grain processing was actually taking place elsewhere, or even traded for. One object may be a fragment of an unusual small cylindrical rotary quern, sf574 (volume 3 Fig. VI.1.7). It is made of coarse sandstone, a neatly made cylinder 230mm diameter with a central hole 89mm diameter, which could be a grain hopper. It is rather small for that purpose, but could have been designed to grind something other than cereal grain. However, there is no evidence that it ever had a handle, although it is possible that could have been on the broken-off fragment. It was set upright in the floor of roundhouse C, close to a hearth. This would be a typical place to find a quern but it seems this may have already been broken when it was set in place so perhaps was being re-used for another purpose. Whatever it was used for it is a technically remarkable object, and undoubtedly of specialist manufacture.

One exceptional item is a fragment of a cylindrical column of local schist, sf729 (volume 3 Fig VI.1.12), 710mm long and carefully shaped to a round section, with a maximum 250mm diameter and tapering to its end, where there is a neatly shaped round tenon. It was found re-used, set horizontally in the doorway of roundhouse. Another stone, of similar size, but not so neatly worked was found in the post-hole of a granary near roundhouse I in the southern area of the settlement. In comparison to small schist columns found still *in situ* in the Tŷ Mawr, Holyhead Mountain settlement (Smith, 1985, 30-3), it is suggested that these were pillars for granaries, though sf729 is much more finely worked.

There are various perforated stones, mainly of schist, including two small examples with off-centre perforations, suggesting that they were meant for suspension (sf294 and sf651, volume Fig. VI.1.7). The small examples are discs with central perforations (e.g. sf245, sf292, sf385, sf723, sf775 and sf829, volume 3 Fig. VI.1.7). They are neatly manufactured objects and their resemblance to large spindle whorls is noted but their actual use is unknown. They may be weights but are not loom weights (see Walton Rogers below). Similar sized perforated stone discs from the Iron Age and Romano-British settlement of Porthmeor, Cornwall (Hirst 1937) have been shown to be lids, with holes probably for cord handles, for storage jars. Other similar objects have been shown to be lids or stoppers for flagons or amphorae at Wroxeter (Moffett 2018) and at the post-Roman site of Tintagel, Cornwall (Moffett, 2107). Obviously there is no pottery at Parc Cybi, but wooden vessels would have been in use, although rarely preserved. The quality of these discs is similar to that of the spindle whorls and so may have a related use, perhaps as flywheel weights for bow drills to drill holes in spindle whorl blanks. Such use has been shown for similar native North American artefacts (Barnett, 1973, 13-15).

Four of the perforated stones are very much larger and are an unusual and unexplained category of artefact. One, stone (sf751, volume 3 Fig. VI.1.8), is a broken half of a large, heavy, flat disc of local schist, 608mm diam. and 68mm thick, roughly chipped to a circular shape. The large central perforation, 95mm diam., appeared to have been worn by rotary motion, whether in manufacture or in use. It had been re-used in the external paving around roundhouse B.

A similar large stone (volume 3 Fig. VI.1.8) was found at Bonc Dêg Farm by the late Ken Gray from Holyhead. It was donated to Oriel Ynys Môn in November 2007 (accession number 12/07). This stone measures 435mm by 390mm by 120mm, weighs approximately 26kgs, and has a hole about 77mm across (Ian Jones pers. comm.). As

Bonc Dêg Farm was a short distance north-west of the roundhouse settlement, it is likely that the stone originally came from the settlement and might be considered alongside sf751. Large perforated stones were also found in the clay-walled roundhouse, structure 80248, in Area K7. A large, broken, perforated stone disc, sf5393 (Fig. VI.1.8), was used as a capstone for a drain. It is a fragment of a much larger split slab of local schist, roughly chipped to an approximately circular disc *c.* 410mm in diameter, with a large central perforation. Another capstone was an oval slab (sf5394), roughly edge-chipped to an irregular ovoid outline, *c.* 440mm by 385mm by 63mm thick. A pit (80372) at the start of another drain contained two other perforated stone objects (sf5391 and sf5392, volume 3 Fig. VI.1.8), both are large, heavy objects, broken across the central perforation. Both are made from slabs split from the local schist bedrock. Sf5391 is *c.* 420mm wide and 59mm thick, while sf5392 is *c.* 360mm wide and 37mm thick. Both of these could be unfinished circular discs and perhaps broken before completion. If so this suggests that the perforation was cut first, before chipping to a circular shape.

All these large objects are of local schist and those from structure 80248 are of similar sizes and thicknesses, suggesting that they were for a similar purpose. It is notable that the perforations are all fresh with no wear, in contrast to the smaller perforated discs from the settlement in area B2, which all had worn and rounded perforations. Other similar objects have been found in Iron Age settlements in Cornwall, for instance from the cliff promontory fort of The Rumps (Brooks, 1974) where they were suggested to be thatch weights, or from a settlement at Camelford (Quinnell, 2015), where they were of local slate and suggested to be covers for pits, because of the careful shaping of the perforations.

Three similar objects were found in and near roundhouse I. These were not perforated but were neatly shaped. Sf5518 and 5412 were large, up to 410mm diameter and sf5518 was chipped to almost perfectly circular shape, while sf5412 may have been nearly circular but was broken. However, it did have a circular cupmark in the centre. Sf5456 was smaller, 260mm by 225mm, and oval. They were all used as post-pads in the base of postholes but may have had different original functions.

As well as the large slabs discussed above the clay-walled roundhouses in Area K7 produced a small, thin disc with a central perforation (sf837, volume Fig. VI.1.7). There were also two utilised stone tools, a polisher or whetstone, sf4229 (volume 3 Fig. VI.1.2) and a heavy hammer (sf4461).

The late Roman period activity in Area K9 included burnishers, polishers, hammerstones and possible gaming pieces, representing a range of food processing and cooking as well as craft, and possibly gaming activities. There was also a possible shaft smoother, sf6182 (volume 3 Fig. VI.1.3), a type usually associated with arrow making, but here it seems more likely to have been for another purpose. However, this area was particularly notable for querns. A fragment of a small rotary quern topstone (sf6173, volume 3 Fig. VI.1.6) was found in the backfill of pit 81041 inside structure 80526. It is *c.* 230mm diam. and 60mm deep, made from coarse sandstone, possibly not from Anglesey, and imported as a finished object. Structure 80527 produced three types of quern; a slug-shaped rubbing stone for a saddle quern (sf6065), a flat disc rotary quern top stone (sf6176) and a fragment of the topstone of a beehive quern (sf6180) (volume 3 Figs VI.1.4 and 6). Built into a floor surface representing the later reuse of this structure was a largely complete beehive quern topstone (sf6054, volume 3 Fig. VI.1.6) of coarse sandstone, possibly imported to Anglesey. It is 290mm diameter and 131mm deep. It has a tapering hopper hole and the remains of a handle hole. The quern has worn slightly asymmetrically with heavier wear on the handle side, which has resulted in eventual loss of the handle, making the stone unusable.

The presence of three types of quern is interesting as they are technologically different from each other and introduced in different periods. Saddle querns were in use throughout prehistory and have been found to have still been used in Roman and early post-Roman Britain. Their longevity most probably derives from the fact that the lower stone did not need specialist manufacture, although the slug-shaped rubbers were carefully shaped. Beehive querns and flat rotary querns were specialist items and would have been traded from a factory using particularly suitable rocks. Beehive querns first appear in North Wales in the Later Iron Age, perhaps reaching this part of the world in 1st century BC (Hughes 1977), whereas flat rotary querns were introduced during the Roman period, many imported from the Continent then later manufactured locally (Watts 1996).

Set into the floor near the boulder hearth in structure 80527 was a deep mortar (sf6149) of breccia (volume 3 Fig. VI.1.12). This is a sub-rectangular boulder with neatly pecked, well-worn, sub-rectangular bowl. This must have functioned with the hearth and been used for whatever industrial activities were carried on in this structure. In the upper layers of the structure there was a hammer stone (sf6022), naturally slightly waisted but this had been emphasised by pecking to aid hafting (volume 3 Fig. VI.1.3). This is a type of modification documented from as

far back as the Early Bronze Age, e.g. at the Ross Island copper mine in south-west Ireland (O'Brien 1961) and into the Roman period (Tylecote 1992). There were also two large cup-marked stones, sf6070 a large heavy slab of local schist rock roughly chipped to an oval shape with a large, shallow central cup mark, and sf6069, which is similar, but more irregular in shape, with a small central cup mark of unknown function (volume 3 Fig. VI.1.10).

Stone axes and ancient antiquarianism

Jane Kenney and George Smith

See volume 3, part VI.5 for full report and figures

Beyond Parc Cybi Neolithic activity is marked by the discovery of polished stone axes. Lynch (1991, 383) lists seven Neolithic polished stone axes found on Holy Island, and two more not included in her list (PRN 2506 and PRN 19669) are recorded in the HER (figure 2). This makes the four found at Parc Cybi a significant addition to the number of known stone axes from Holy Island. The precise stone type of previously discovered axes is often not known but two (PRN 2507) were analysed by the CBA Implement Petrology Group and are both of Group VII Graig Lwyd stone from Penmaenmawr (Anglesey 27 and 52, Clough and Cummins 1988, 246). All the Parc Cybi axes were of this stone and it is probable that most of the axes on the island came from this relatively local and important source. However, the four axes (PRN 5667) found in a hoard near Cwm, Holyhead in the mid-19th century, are described as being of flint (Stanley 1874, 296-7). One of the axes was acquired by Stanley, and it is now in the British Museum (Lynch 1991, 383), but the others were lost. Another axe, found near Tŷ Du, Holyhead, also sent to the British Museum (PRN 5668³²), is said in the Royal Commission Inventory to be of flint (RCAHMW 1937, lxi). Flint axes are quite rare on Anglesey and these finds suggest a concentration on Holy Island. Stanley claimed that pieces of flint large enough to make an axe could be found on a beach nearby and concluded that the Cwm hoard was made locally (Stanley 1874, 297). However, the axe from Cwm given to the British Museum (accession number 1875,0424.1) looks remarkably fresh (plate 229), raising a question about the origin and authenticity of the hoard. Parc Cybi has provided some evidence for flint polished axes on Holy Island, as a reused flake from such an axe was found in the Early Neolithic building, although this was made of patinated grey flint, rather than the suspiciously high quality black flint of the Cwm axe.



Four polished stone axes from Parc Cybi did not come from Neolithic contexts, although waste flakes from Graig Lwyd axes were also found in the Early Neolithic building. All came from Area B2; sf229 from roundhouse B, sf650 from roundhouse C, sf326 from roundhouse E, and sf102 from a post-medieval pit (90055) (figure 135). A possible axe or macehead fragment (sf248) was also found in Area B2 while cleaning ploughsoil from an area lacking features. Sf229, a complete axe (volume 3, Fig VI.5.1), was found embedded in the surface of the remaining foundations of the latest wall addition (90847) within roundhouse B (context 90508, the wall core) (plate 230). This seems to have been built into the wall, possibly incidentally, but possibly deliberately. The axe

*Plate 229. Flint axe from Cwm, Holyhead ((PRN 5667),
British Museum accession number 1875, 0424.1 (image:
British Museum)*

may have been kept within the roundhouse before the additional wall was built. Sf650 was incorporated within the main floor deposit (91626) in roundhouse C. This axe is broken and it is presumed that its inclusion in the floor was incidental but there was a floor pre-dating 91626 (figure 77) so the axe could have been brought into the house and kept there before being abandoned, possibly because it was broken and incorporated into the reflooring deposit. Sf326 was discovered while cleaning over roundhouse E, but many features were directly beneath the ploughsoil or ploughsoil-like over-burden. The axe, which was complete, was found directly over pit 91223 and could have originated from this.

³² On figure 2 this is shown near Tŷ Du (approx. SH 242 816) where it is said to have been found rather than at the HER location.



Plate 230. Polished stone axe (sf229) as found in the core of wall addition 90847 within roundhouse B

Sf102 was also a complete axe but was not found in the roundhouse settlement, but in a small pit (90055) presumably associated with the Pen y Lôn farmstead (plate 231). The pit contained post-medieval material and a sherd of late glass was found at a lower level than the axe. Sf248 was found not far away also within the farmyard of Pen y Lôn, but this was at the interface of the ploughsoil and boulder clay and not within a feature.

Such a concentration of finds in an area with only few other traces of Neolithic activity suggests that polished axes were being concentrated here by later activity. As three of the axes were from within roundhouses this implies that the Iron Age occupants of the settlement were collecting these objects. Sf102 may have been collected like the others in the Iron Age but rediscovered during stone robbing of the settlement in the 18th century. Sf248 could have arrived at its final location by any manner of means, and could have been a chance loss of a broken fragment. However, its presence so close to the other axes does suggest that it was also brought to this area.

Polished stone axes can still be found in the fields of Anglesey, where they were presumably lost during use. In fact, most axes held in museum collections are casual finds of this sort and unrelated to Neolithic settlements. The presence of the chambered tomb on the hill and Neolithic settlement discovered in Parc Cybi demonstrates Neolithic activity and the loss of polished axes in the area is to be expected. The evidence from Area B2 suggests that when the Iron Age occupants found such axes in their fields they recognised them as something other than ordinary stones and collected them. It is possible that sf229 was placed in the wall foundation and sf326 in a pit as deliberate acts, though the inclusion of sf650 as a pebble in a floor layer seems less deliberate. All three axes may have been disposed of without much thought, but that does not negate the possibility of their being kept as curiosities for a while or even preserved as magic or talismanic objects. How they might have been displayed in the houses cannot be known.

For sf102, which was discovered or rediscovered at a more recent date, speculation of what it meant to the finder can have some support from tradition. Stone axes were considered to be elf bolts or thunder bolts with magical and possibly dangerous connotations. This could have been buried to neutralise its possibly baleful influence from the home of the finder.

What the Iron Age people considered the axes to be is unknowable. They may have recognised that

Plate 231. Polished stone axe (sf102) being discovered in post-medieval pit 90055



they were made by earlier people or they could have seen them as supernatural. Intriguingly the axes are not the only examples of possible collection of antiquities by the occupants of the Iron Age settlement. A cup-marked slab (sf564 (volume 3 Fig VI.1.11)) was incorporated into the lowest floor layer (90990) in roundhouse B. This is a slab of local schist rock with five small cup-marks on it. It appears to have been deliberately split off from an outcrop by means of drilling three vertical holes around it, probably by use of an iron bar. The cupmarks are typical of others occurring on bedrock outcrops and boulders elsewhere on Anglesey, probably of later Neolithic or Bronze Age date. It is assumed that they adorned an outcrop nearby, attracted the attention of the Iron Age inhabitants and the section of outcrop was carefully removed. This removal incidentally provides indirect evidence for the use of iron tools, which are otherwise poorly attested in the settlement. None of the other stones used in the roundhouses had such evidence of quarrying, though many of the flat slabs used for post pads or paving were presumably removed from outcrops. However, the position of the drill holes around the cupmarks suggests that the aim was to remove this particular piece of rock for the marks. It might be speculated that this was a foundation deposit during the building of roundhouse B, but it cannot be known if the stone was displayed before being buried.

There are some other hints from Holy Island of Iron Age people collecting ancient artefacts. Smith (1984, 81) lists “a rough celt” from Stanley’s excavations at Tŷ Mawr, Southstack, from near building J. This apparently did not come directly from a building and could have been incidentally lost in the area but could indicate collection of axes by the inhabitants of the roundhouses. However, the identification of this as a Neolithic polished axe must be in some doubt. Smith, in his excavations at Tŷ Mawr, also found two axe-shaped stones, but these were made of sandstone and are therefore unlikely to be axe roughouts. One he considered to be possibly a grinding stone incidentally worn to an axe-like shape but the other had wear consistent with being dragged through the ground. It was too small for an ard tip but might have been part of a type of hoe (Smith 1986, 39).

The macehead (sf1145) from the pits in Area I at Parc Cybi was securely dated to the Middle Neolithic period, but similar objects have been found on Holy Island apparently from Iron Age contexts. Stanley (1869, 321) reports the discovery of a “hammer of trap rock” from Pen y Bonc. The drawing of this (Stanley 1869, Fig. 17) quite closely resembles the Area I macehead. Stanley (1869, 321) also mentions a similar object of “decomposed granite” from the Tŷ Mawr roundhouse settlement. This raises the question of whether similar objects were in use in the Iron Age or, like the axes, Neolithic examples were collected and brought into Iron Age settlements.

From further afield an axe-head shaped stone object was found in a hut circle at Gwern Engan, near Conwy (Lowe 1912, 202). As this is not very far from the Graig Lwyd stone source it may indeed have been a polished axe or roughout but Lowe provides no drawing and it may just have been an axe-shaped stone. An axe-shaped stone found at Braich y Dinas, Penmaenmawr in a roundhouse was drawn (Hughes 1915, 31, fig 11). It has a slight waist and does not taper to the butt, making it probably not an axe. Hughes gives no indication of the stone type. These axe-shaped stones cannot be used to demonstrate an interest in Neolithic stone axes in the Iron Age.

A genuine Neolithic stone axe was found in a pit associated with an Iron Age triangular timber structure interpreted as a shrine at Manor Farm, Garforth, West Yorkshire (Chadwick 2009, 120). Bradley (2002, 54) quotes cases of early objects found apparently deliberately deposited in later contexts, including a Neolithic axehead in a foundation trench for a Bronze Age hillfort. However such finds are often assumed to be unique or incidental cases with little attempt to identify patterns of deposition.

Spindle Whorls and Perforated Weights

By Penelope Walton Rogers

See volume 3, part VI.4 for full report and figures

Introduction

Thirty three of the 38 stone spindle whorls from the excavations were associated with the Iron Age roundhouse settlement in Areas B2 and F1 (figure 136). Most of those from elsewhere on the site have a possible or definite Iron Age association.

Spindle whorls represent the craft of spinning, in other words, the production of yarn for textiles and cordage. As a simple piece of equipment, commonly used, they tend to represent local traditions of craft practice. The shapes and method of manufacture of the Parc Cybi whorls have proved to be in many ways typical of northern Britain and Ireland in the Iron Age, but made out of local materials. The distribution of the whorls across the site and

the presence of part-worked unfinished whorls alongside whorls with signs of use is noteworthy. Other features of interest include deliberate markings that repeat on several whorls and a single whorl, 1042, with an unusual incised decoration, which could, perhaps, have cryptic meaning.

The characteristics of the whorls

The spindle whorls are notable in all being made of the same light-weight stone. This appears to be phyllite, though a specific form of this variable stone. One of the spindle whorls was studied by Dr Jana Horák of the Department of Natural Sciences, Amgueddfa Cymru National Museum Wales. Preliminary inspection led to the suggestion that the stone was actually a fine grained sandstone. A thin section revealed the stone to have a high proportion of voids caused by leaching or heavy alteration of volcanic material, which explains its low density. The results of the thin section are consistent with this stone being phyllite (Mike Ridealgh pers.comm.).

The shapes of the whorls are typical of prehistoric whorls from Britain made from rocks other than chalk. They can be categorised as Form B, with two equally sized transverse flat faces, and include examples of Form B1 with straight vertical sides and B2 with convex sides (volume 3 Fig VI.4.5) (Walton Rogers 2007, 24-5). Most have a relatively small spindle hole diameter, 3.5-6.5 mm, which is consistent with the established range for Iron Age spindle holes of 4-8 mm diameter, with 4-6 mm as the most common measurement (Walton Rogers 2007, 23-4). Only two whorls, 415 and 272, both from secure Iron Age contexts, have spindle holes over 8 mm diameter. The B2 whorls have on average a larger diameter and are heavier than B1 whorls, but the spindle-hole diameters are much the same in both groups.

The process of manufacture can be reconstructed from the unfinished whorls. There are two blanks cut to shape, and a third with the beginnings of a spindle hole on one face (volume 3 Fig VI.4.1). Fine striations on all surfaces show attempts to grind the whorl to shape (there is no evidence for lathe-turning) (volume 3 Figs VI.4.2-3, 6a) and grinding stones such as 1039 (found close to spindle whorl 1042), could perhaps have been used for the purpose. The spindle hole seems to have been made after the grinding of the edges. There are sometimes preliminary gouge marks and the hole itself must have been made with either a slow drill or a tool such as a burin (as suggested by Timberlake 2018, 235) to produce a conical or cup-shaped depression. First and second attempts at the spindle hole can be found on 205 (volume 3 Fig VI.4.1) and 195 (volume 3 Fig VI.4.6a). The spindle hole has usually been worked from first one face then the other, which has often given it an exaggerated hourglass shape. At least nine whorls that appear to be unfinished, or to have irregular shapes and off-centre spindle holes, have been interpreted as failed attempts, discarded during manufacture (for a selection, see volume 3 Fig VI.4.2).

In contrast, at least ten whorls are symmetrical with a centrally placed spindle hole and have particularly smooth surfaces (for a selection, see volume 3 Fig VI.4.3). These are finished whorls and it is likely that the smoothing has been caused by handling. When used for suspended-spindle spinning, the whorl is jammed on the end of a spindle (usually of wood, sometimes of bone or iron), where its function is to keep the spindle stable as it rotates, and to keep up the momentum of spin. The constant rubbing of the rotating whorl against the hands, clothing and yarn causes whorls to develop a smooth finish over time. One of these whorls, 4248, and perhaps also 370, 409 and 1042, has dark patches on the surface, which may represent the build-up of grease that is seen on whorls used for spinning sheep's wool.

The failed whorls and those with worn surfaces were spread equally through the roundhouse settlement. The location of the unfinished and finished whorls from Roundhouse E is discussed further below.

Some of the whorls have markings, which are difficult to interpret. Three whorls, 195, 387 and 769 and perhaps also 370, have incised lines within a single quadrant, radiating from the spindle hole (volume 3 Fig VI.4.6a-d). The lines can be thin scratches or deeper grooves. In 387, the grooves are combined with an arc of peck-marks which suggests deliberate ornament (volume 3 Fig VI.4.6b), although an arc of tiny marks on one of the blank whorls, 366 (volume 3 Fig VI.4.1), might equally indicate that they were part of the manufacturing process. Each of the three whorls, 195, 387 and 769, weighs 17 g, which might suggest a deliberate weight marking, although they were variable in other measurements. Scratched marks on 473 more obviously represent a rudimentary form of decoration, made up primarily of diagonal lines, with an additional encircling line on one face (volume 3 Fig VI.4.6e-f).

Ornamented whorl

Whorl 1042 is made from a dull grey, slightly porous phyllite. It is thicker than the other whorls (thickness was measured along the opposite axis to the diameter) and has a medium-sized spindle hole, 7 mm diameter. It has a

deep encircling groove around its girth and incised decoration (volume 3 Fig VI.4.7). On one transverse face there is a star formed from five inward-curving arcs. On the opposite face there is a grid made up of two vertical and two horizontal lines with the addition of two diagonal lines. On the sides, in the zone above the encircling groove, there is a band of ornament made up of a single zig-zag, which breaks into parallel diagonal lines with linking bars for part of the circuit. Between the dips on one side of the zig-zag are single +-signs. There is no ornament in the zone below the encircling groove.

This whorl was recovered from an earth oven, radiocarbon-dated to the Iron Age, in Area I (figure 85). This was about 200m from the main Iron Age settlement and, as described above, it is a slightly thicker variant of the whorls from the roundhouses. No exact parallels have been identified in other sites, although an encircling groove – an unusual feature in spindle whorls – was recorded in a chalk whorl from an Iron Age site at Trumpington, Cambridge (Timberlake 2018, 235-6). Ornament other than radiating lines on prehistoric British whorls is comparatively rare and, as others have remarked, the decision to ornament something usually plain must have had some social significance (Chittock 2014, 315). One comparison can be drawn with an asymmetrical design with two inward curving arcs separated by hatching on a whorl from Glastonbury lake village (Tuohy 2004 105, fig.4). Examples of incised ornament are a little more common in the early medieval period and amongst the simple lines, dots and circles, there are some whorls with inscriptions, in ogham on a Pictish whorl (Stirling and Milek 2016, 58-9), in runes on lead whorls from England (Green 2014; PAS LEIC-38FE80; WMID-646AC5; LVPL-84880E) and pseudo-runes on a chalk whorl from Lurk Lane, Beverley (Walton Rogers unpublished a). It is therefore worth noting that the zig-zag motif with +-signs seen on the sides of 1042 also occurs on a Roman Iron Age brooch from Fårtoft, Thisted Amt, Jutland. It appears on the catch-plate, a zone of the brooch, which would often carry runes and other meaningful symbols (Przybyła 2015, 352, 373, fig.9). It is not impossible, therefore, that the ornament on 1042 had some symbolic meaning behind the artistic creation.

Comment

Whorls of the shapes recorded at Parc Cybi are typical of prehistoric Ireland and northern Britain. Maria Fitzgerald, in her survey of Irish spindle whorls, noted that this was the most common shape for Bronze Age and Iron Age whorls made of stone and that radiating lines (although not grouped in a single quadrant as they are in the Parc Cybi whorls) were the most common decoration (Fitzgerald 2000, 98-105, 118). No comparable survey has been conducted for Britain, but similar whorls have been recorded at a variety of Iron Age sites, stretching from Orkney, through the Yorkshire Pennines, to southern sites such as the hillfort at Danebury and the Somerset lake villages, although collections of stone whorls from southern and eastern sites include a wider variety of shape (Bulleid 1926, 40-1, 61-74; Henshall 1950, 142-4; Cunliffe 1984, 398-402, 422-5, 438-9; Coles 1987, 64-5 88, 157-168; Stirling and Milek 2016, 55-9; Walton Rogers unpublished b and c). Radiating lines were recorded on a proportion of these. Where the lithic origin has been determined, the material of the whorls reflected the local geology, at least in northern sites. As well as stone, bone whorls were recorded in Orkney (Stirling and Milek 2016, 55) and lead disc whorls and clay whorls in a range of shapes in southern and eastern Britain. Bone may not have been preserved at Parc Cybi, but clay was present at the site. There may be temporal variations hidden in this material, but, on the evidence as it stands, the absence of clay and lead whorls and the narrow range of shapes seem to align Parc Cybi with the north and west more than the south and east.

The weights of the Parc Cybi whorls suggest a range of different yarns being produced. They mostly fall within the range 12-38 g, with three whorls 46-55 g (volume 3 Fig VI.4.4a). In the Irish material there was also a wide range of weight, but 73% of whorls (of all dates) weighed 5-35 g, and it was suggested that the heaviest whorls may have been used for plied yarns and cords (Fitzgerald 2000, 90-95). These weights are also comparable with the stone whorls from Iron Age Orkney, although the Orkney examples fell into two main groups, one 10-14 g and the other 35-39 g: this was interpreted as indicating the production of two main yarn categories (Stirling and Milek 2016, 64). Several useful experiments have been conducted with whorls of different shapes and sizes to see how they function during spinning, but in this author's view, it is not possible to deduce from this the precise use of individual excavated whorls without supplementary evidence, because the length and weight of the spindle, the type of fibre and the spinster's technique are unknowable variables. Nevertheless, a site with a range of weights is likely to have been producing yarn for a range of different textile types and cords.

The whorls were most commonly recovered from inside the roundhouses. At Danebury this was not the case, only two stone (chalk) whorls being in roundhouses and the remainder being scattered over the excavated area of the fort (Brown in Cunliffe 1984, 422). A further significant finding is that the part-made whorls and the used whorls were often found close together. In the most completely preserved roundhouse at Parc Cybi, Roundhouse E, they clustered immediately to the right of the eastern entrance, in what must have been a well-lit area during the

day (figure 137) (Pope 2007, 216). Since they were often recovered from small pits or postholes, it is difficult to interpret this evidence, and the formation of abandonment deposits at the end of the building's life is in any case a complex subject (Pope 2007, 215-17). If, however, the distribution of whorls is taken at face value, it implies that the stationary task of whorl-making and the portable craft of spinning were both practised in the well-lit area just inside the entrance to the roundhouse.

Perforated weights

A number of relatively heavy stone objects with a single perforation in each were also found in the roundhouse settlement. These have been identified as being made from phyllites, with one exception made on a similar chlorite schist. Ten of these are disc-shaped weights, or parts of weights, with a central perforation, of a type that have sometimes been classified as weights used to tension the warp when weaving on the warp-weighted loom, although there is no general consensus on this matter. There is evidence to suggest that the warp-weighted loom was not used in Ireland before the Viking Age, though some convincing loomweights have been found on Iron Age sites in England. Loomweights should be found in sets, not scattered, as is the case with the Parc Cybi weights. The Parc Cybi disc-shaped weights would function well as loomweights for weaving fine-to-medium cloths, but their limited numbers, lack of clustering on the site and the absence of supporting evidence in the form of the hand-tools commonly used with the warp-weighted loom leaves this matter open to doubt. Only a rigorous review of Iron Age textile-manufacturing evidence, taking into account regional and temporal variation, can hope to resolve the problem.

Site distribution of spindle whorls

Jane Kenney

Figures 136 and 137

Table 10. Summary of the location of spindle whorls at Parc Cybi

Area	Roundhouse or sub-area	Description of provenance outside Area B2/F1	Find No	Context No
B1		From the ploughsoil some distance NW of the main settlement	35	2064
B2/F1	NW Area		2261	801
B2/F1	NW Area		780	92597
B2/F1	Outside RHA		61	90009
B2/F1	Outside RHA		375	91233
B2/F1	Outside RHE		525	91474
B2/F1	Pre-RHC	In deposits pre-dating the roundhouse	769	92561
B2/F1	RHA		205	90021
B2/F1	RHA		272	90646
B2/F1	RHA		473	90668
B2/F1	RHB		246	90002
B2/F1	RHB		344	90883
B2/F1	RHB		571	90990
B2/F1	RHB		642	90992
B2/F1	RHC		362	90002
B2/F1	RHC		531	91289
B2/F1	RHE		244	90002
B2/F1	RHE		366	91171
B2/F1	RHE		370	90002
B2/F1	RHE		386	91247
B2/F1	RHE		387	91247
B2/F1	RHE		391	91247
B2/F1	RHE		409	91406

B2/F1	RHE		412	91367
B2/F1	RHE		415	91343
B2/F1	RHE		533	91444
B2/F1	RHH		2260	904
B2/F1	Outside RHI		5457	93507
B2/F1	Outside RHI		5463	93507
B2/F1	Structure F		132	90002
B2/F1	Structure F		189	90300
B2/F1	Structure F		195	90300
B2/F1	Structure F		201	90299
B2/F1	Structure F		219	90501
I		From earth oven of Iron Age date associated with pits and hearths of group 19073	1042	21041
K5		From a post-med culvert running through probable roundhouse settlement. Found in evaluation trench 13	2217	1313
K7		From clay-walled roundhouse, structure 80249	4248	80187
L3		From over a possible capped drain close to structure 22171	1375	22183

Thirty three of the spindle whorls came from Areas B2 and F1 within or close to the main roundhouse settlement. Some of these came from deposits directly over the roundhouses but it is assumed that they originated from the houses these deposits overlay. Not all the spindle whorls were found inside or directly over the houses; five were from outside areas close to the houses. Two spindle whorls (5457 and 5463) from the remains of a small structure to the east of roundhouse I could possibly suggest that this was specifically related to spinning, though they may just have been discarded from the roundhouse. One spindle whorl (sf769) may have pre-dated the settlement and be related to earlier activity. It is notable that this spindle whorl is an outlier in diameter and hole size, perhaps supporting its earlier date.

Three spindle whorls were associated with roundhouse A, four with roundhouse B, two with roundhouse C and 10 with roundhouse E, and one may possibly have come from roundhouse H. The date of Structure F is uncertain, though it may have been contemporary with the main settlement. It had 5 spindle whorls in the deposits immediately overlying it, which are likely to have originated from the structure (figure 137). Most of the main structures in the settlement therefore seem to have been used to some extent for spinning, if the location of loss of the spindle whorl can be related to its use. The main exception is roundhouse I, which may have had spinning outside the house and not inside. No spindle whorls were recovered from inside structure D, which might support the interpretation of this not having been a domestic structure, however relatively little survived in this building so the lack may be due to poor preservation. Both spindle whorls in the NW Area (immediately to the north-west of the main settlement) either came from or directly over the remains of a small structure of uncertain date (structure 94016), possibly supporting the suggestion that the structure was contemporary with the main settlement.

There were spindle whorls from both the early and late phases in roundhouses A and B. Roundhouse E was used only in the earlier phase of the settlement's use and roundhouse C only in its later phase so spindle whorls in both these structures suggest their use continued throughout the life of the settlement. However, the most significant element of the distribution of these finds is that more than twice as many were found in or over roundhouse E than any of the other houses. This suggests that there was an emphasis towards spinning in this building and in the earlier phase of the settlement. As mentioned above most of the spindle whorls in roundhouse E were concentrated close to the eastern entrance (figure 137). This small area also contained a number of other stone objects, including three perforated discs, a hammer stone, two whetstones, a rubber, a double cup-marked pebble, a bead and a probable gaming counter. This may suggest that spinning, as well as other craft activities took place predominately in this area.

The number of spindle whorls recovered from the roundhouse settlement as a whole, including blanks, shows that spindle whorls were being made here. Some at least of the spindle whorls had perforations that had been neatly drilled and it is likely that some kind of rotary grinding equipment had been used. Drills could have used the larger perforated discs found on the site as fly-wheel weights to assist the rotation process. There are numbers of stones

that might be used for grinding and polishing, but there is no evidence of drill points. This might be because iron was being used, which being a precious and recyclable material, was never discarded.

Of those spindle whorls found outside Areas B2 and F1 sf35 may have been a casual loss from the main settlement as it was found not far to the north-west. Sf2217 from Area K5 contributes to the evidence that there was a roundhouse settlement in this area as suggested in the evaluation trenching, although this spindle whorl was displaced as it had been incorporated into the fill of a post-medieval culvert. Sf4248 from structure 80249, a clay-walled roundhouse in Area K7, suggests that some spinning was taking place in this house, though at a low level. The neighbouring roundhouse did not produce any spindle whorls, so it appears that spinning was not a significant activity in this part of the site. Sf1375 from Area L3 may have originated from the excavated structure nearby but the presence of a stone-capped drain suggested that there were other roundhouses beyond the limit of the excavated area and this spindle whorl does no more than hint at the other activity that might be present in this area.

Sf1042 is perhaps the most significant individual spindle whorl due to its extensive and complex decoration. It was found in what appeared to be a fairly isolated pit (21039) but a date of 420–230 cal BC (SUERC-83271) from this is very close to a date of 390–200 cal BC (SUERC-81341) from a complex of pits and hearths to the north (group 19073) (figure 85). All these features were probably part of the same activity. Pit 21039 appears to have been an earth oven and the other features are perhaps suggestive of temporary occupation with perhaps a small structure. The spindle whorl supports the suggestion of domestic activity here but its decoration possibly hints at a more ritual aspect to this activity.

Regional context for spindle whorls

Jane Kenney

Spindle whorls are a common find on Iron Age settlements in north-west Wales but have rarely been studied in detail. The closest site to Parc Cybi that produced spindle whorls is the Trefignath Chambered Tomb where Iron Age activity was indicated by two undecorated spindle whorls and a part of a third as well as two perforated stones similar to the Parc Cybi perforated weights. There was also a small stone object exactly like a spindle whorl but only 24mm in diameter, and therefore presumably too small (Smith 1987b, 81). ‘Squatter’ occupation in the tomb entrance was dated to 410–60 cal BC (HAR 3933)³³ (Smith 1987b, 45), so possibly contemporary with the Parc Cybi roundhouse settlement, though the date has a broad error. However the spindle whorls were found unstratified on the cairn and were probably casual losses. The cairn would have been an ideal place to sit and spin while watching livestock, and the spinners could have come from the Parc Cybi settlement.

The site of the Tŷ Mawr barrow, now under the A55, also produced two spindle whorls, although one is misshaped and presumably not finished, or not actually a spindle whorl. One is made of phyllite and one of siltstone (Smith 2012b, 174). One was found in the fill of a grave and one in the barrow ditch so neither can be associated with Iron Age or Roman period settlement.

For the distribution of spindle whorls in Iron Age and Romano-British settlements across north-west Wales the identification of sites is greatly aided by Waddington survey of settlements in the area (Waddington 2013). Below is a table of sites with spindle whorls mentioned in that survey (table 11), with additional information from the relevant site reports.

33 95% probability, recalibrated; 2210±70 BP

Table 11. Iron Age and Roman period sites with spindle whorls in north-west Wales

Site	County	Community	Site type	Number of spindle whorls	Found in	Period	Reference
Braich y Dinas	Conwy	Penmaenmawr	Hillfort	6	Roundhouses	Iron Age	Waddington 2013, 125. Hughes 1923, fig 8, 255, 260
Conwy Mountain (Caer Lleion)	Conwy	Conwy	Hillfort	12 (3 unfinished)	Roundhouses	Iron Age	Waddington 2013, 126, 127, 128. Griffiths and Hogg 1956, 77-79
Pen y Gaer	Conwy	Caerhun	Hillfort	1	Roundhouses	Iron Age	Waddington 2013, 133
Pen y Coed	Conwy	Penmaenmawr	Enclosed settlement	2 (one stone, one ceramic)	Location not determined	Iron Age	Waddington 2013, 134. Newstead 1899, 148
Bryn Eryr	Anglesey	Cwm Cadnant	Enclosed settlement	1	Not specified	Iron Age	Waddington 2013, 144. Longley 1998
Din Lligwy	Anglesey	Moelfre	Enclosed settlement	3 (1 ceramic), plus 2 possible and 3 blanks	Roundhouse, rectangular structures and outside buildings	Romano-British	Waddington 2013, 150, 151. Baynes 1908, 194, 199, 202. Baynes 1930, 377, 381
Plas Bach	Anglesey	Aberffraw	Enclosed settlement	“a quantity” (including 1 decorated, and a possible blank)	Roundhouse (mostly redeposited on the fields)	Iron Age	Waddington 2013, 157. Griffiths 1892, 242-3
Tŷ Mawr, Holyhead Mt (Smith)	Anglesey	Trearddur	Enclosed settlement	1	Roundhouse	Iron Age	Waddington 2013, 158
Tŷ Mawr, Holyhead Mt (Stanley)	Anglesey	Trearddur	settlement	14, one decorated ¹	Roundhouses	Iron Age	Waddington 2013, 166. Stanley 1869, 304
Cefn Cwmwd	Anglesey	Llangefni	Settlement	5 stone 1 lead	Pit circle/ roundhouse	Iron Age/ Romano-British	Waddington 2013, 160, 162. Cool and Bevan 2012, 151, 153
Plas Meilw	Anglesey	Trearddur	Settlement	Several	Roundhouses	Iron Age/ Romano-British	Waddington 2013, 172. Stanley 1869, 309
Porth Dafarch	Anglesey	Trearddur	Settlement	several	Roundhouses?	Iron Age/ Romano-British	Waddington 2013, 173
Bodrwyn	Anglesey	Cerrig Ceinwen	Settlement	1 possible	Roundhouse	Iron Age?	Waddington 2013, 175

T11.1 Tŷ Mawr and Plas Meilw have been confused by Waddington

Site	County	Community	Site type	Number of spindle whorls	Found in	Period	Reference
Cae Metta	Gwynedd	Llandeiniolen	Enclosed settlement	1	Roundhouse	Romano-British	Waddington 2013, 179
Caerau II	Gwynedd	Llanllyfni	Enclosed settlement	1	Roundhouse	Iron Age	Waddington 2013, 184
Coed Uchaf	Gwynedd	Llanllechid	Enclosed settlement	1	Roundhouse	Iron Age/ Romano-British?	Waddington 2013, 186
Llandegai A (Llandygai Industrial Estate)	Gwynedd	Llandygai	Enclosed settlement	4 (2 decorated)	Upper fill of henge ditch and unstratified	Iron Age	Waddington 2013, 192. Lynch and Musson 2004, 103
Parc Bryn Cegin South	Gwynedd	Llandygai	Settlement	2	Roundhouse and boundary ditch	Iron Age/ Romano-British	Waddington 2013, 204. Kenney 2009, 83, 93
Parc Bryn Cegin B	Gwynedd	Llandygai	Settlement	1	Roundhouse	Iron Age	Waddington 2013, 204. Kenney 2009, 85
Afon Rhaeadr Fawr	Gwynedd	Abergwyn- gregyn	Single roundhouse	1	Corn dryer	Iron Age/ Medieval	Waddington 2013, 196
Meillionydd	Gwynedd	Rhiw	Enclosed settlement	At least 3 (2 unfinished)	Roundhouse	Bronze Age / Iron Age	Waddington 2013, 220
Tre'r Ceiri	Gwynedd	Llanallhaearn	Hillfort	several	Round and rectangular structures	Iron Age/ Romano-British	Waddington 2013, 221
Cefn Graeanog II	Gwynedd	Clynnog	Enclosed settlement	1	Roundhouse	Romano-British	Waddington 2013, 227
Graeanog East	Gwynedd	Clynnog	Enclosed settlement	2	Layers under round-houses	Iron Age	Waddington 2013, 227
Melltym Uchaf	Gwynedd	Botwnnog	Enclosed settlement	1	Ploughsoil over round-houses	Late Bronze Age/ Early Iron Age	Waddington 2013, 231
Crawcwellt West	Gwynedd	Trawsfynydd	settlement	2 plus blank	Stake-walled round-houses	Iron Age	Waddington 2013, 255

The table shows that the number of spindle whorls is usually low. In many cases this is due to only a small area of the site being excavated, but even on sites that were largely or entirely excavated numbers are few. In almost all cases the spindle whorls were recovered from inside buildings, mainly roundhouses. At Mellteyrn Uchaf and Parc Bryn Cegin South spindle whorls came from the ploughsoil over the settlements, though they must have originated from the settlements. Graeanog East had spindle whorls from cobbling or levelling layers under roundhouses at different phases, possibly having been introduced from the activity above. However, one spindle whorl was found in a boundary ditch between Parc Bryn Cegin North and South settlements. Two spindle whorls were found at (Llandygai Industrial Estate in the fill of the henge ditch (two more were unstratified). The Iron Age settlement inside the ditch contained few finds and the spindle whorls were associated with a possible structure in the largely infilled ditch (Lynch and Musson 2004, 100-104), perhaps suggesting spinning taking place on the edge of the settlement or even after most of the settlement was abandoned. Loss of spindle whorls therefore seems to occur mainly but not entirely within houses. The concentration in houses is partly perhaps due to houses often being targeted by excavations, but in many fully excavated settlements spindle whorls are not recorded as being found in yards or between houses, so it appears that they were normally used and lost inside buildings. However, the discovery of spindle whorls at Trefignath Chambered Tomb (Smith 1987b, 81) and the Tŷ Mawr barrow and cemetery (Smith 2012b, 174) suggest that if reports on other site types were examined a scatter of spindle whorls lost away from settlement sites might be identified.

The sites with the largest number of spindle whorls are generally ones dug or explored in the 19th century so the distribution of the finds within houses is unclear. However, one of the spindle whorls found at the Tŷ Mawr settlement was found near a hearth (Way 1867, 249). Hughes lists finds from each house at Braich y Dinas but gives no description of where in each house finds were discovered (Hughes 1923). There are no other local sites with which to compare the detailed distribution of spindle whorls in Parc Cybi roundhouse E.

The spindle whorls are mostly made of stone, although a lead whorl was found at Cefn Cwmwd (Cool and Bevan 2012, 153), a ceramic one is described at Pen y Coed but not illustrated (Newstead 1899, 148), and one from Din Lligwy was made from a sherd of samian Ware (Baynes 1908, 202). In many cases the type of stone is not reported or the identification has not been done by a geologist. However, those from Cefn Cwmwd were inspected by a geologist and of the five stone spindle whorls three were of chialstolite hornstone, described as coming possibly from the Lake District or Brittany. It seems probable that the stone was a component of the glacial tills rather than being imported but it was selected for making these objects. The other two were made of local siltstone and sandstone (Jenkins 2012, 202, 205). One spindle whorl from Tŷ Mawr was made of sandstone (Way 1867, 249). The three spindle whorls from Parc Bryn Cegin were made of sandstone, lignite and schist, all with quite distinctive and decorative appearances (Smith 2008, 75-6). There was also a probable lignite spindle whorl from Conwy Mountain (Griffiths and Hogg 1956, 77-79). The twelve examples from this site were made on a variety of different stone; as well as lignite there was basalt, gritstone, local volcanic rock, slate and sandstone. This is a contrast to Parc Cybi where all the spindle whorls were made of the same type of stone, which seems to have been deliberately chosen for its specific properties.

Occasional unfinished spindle whorls are found and at Meillionydd it is specifically suggested that they were being made on the site (Waddington 2013, 220). At Conwy Mountain two blanks and one with an unfinished hole were found (Griffiths and Hogg 1956, 77-79). One spindle whorl at Din Lligwy is described as having an unfinished hole and there are two stone discs and one tile disc from this site; probably spindle whorl blanks (Baynes 1908, 194; Baynes 1930, 377, 381). It seems likely that spindle whorls were locally made on the sites on which they were used.

The number of decorated examples is fairly low, with one or at the most two in the larger assemblages. Stanley found a fine decorated example at Tŷ Mawr (Holyhead Mountain), which had incised lines in a herringbone pattern between concentric circles (Stanley 1869, 304). One spindle whorl from Plas Bach was decorated with inscribed lines forming overlapping arrows (Griffiths 1892, 243). At Llandygai one spindle whorl had radiating lines in two opposing quadrants and another had a concentric groove on each face around the central hole (Lynch and Musson 2004, 103). As the hole in the latter object had not been fully bored through it seems to have been discarded before completion and the groove may have been a result of manufacture not decoration. There were also radiating lines on a spindle whorl from Braich y Dinas (Hughes 1932, fig 8, 255), and one from Conwy Mountain had intersecting scratches forming a very basic decoration (Griffiths and Hogg 1956, 77, 79).

The Rural Settlement of Roman Britain Project found that in the Late Iron Age and Roman period spindle whorls were more common on sites in south Wales than in the north, while querns were more common in the north (Brindle

2016, 381). This suggests a concentration on wool production in south Wales and grain in the north, which might seem counter intuitive given the areas of upland in North Wales. However, Anglesey is likely to have been a grain producing area. The search of sites in north-west Wales confirms that wool processing as represented by spindle whorls seems to have been relatively unimportant in the area, though carried on at a low level on many sites. In general sites with many spindle whorls have many roundhouses so the number per house is still low. This is most clearly demonstrated at Braich y Dinas where 6 spindle whorls were found but 35 huts were excavated (Hughes 1923, fig 8, 243, 255, 260); spindle whorls were clearly not common on the site. However at Conwy Mountain where 4 huts were excavated all but one produced spindle whorls (hut 1: 5, hut 3: 4 and hut 4: 3) (Griffiths and Hogg 1956, 78-79), so they seem to have been more numerous here. Some of this scarcity is probably due to the small scale of some excavations but the trend is consistent and reflected on fully excavated sites so it does appear to be genuine. The concentration of 33 spindle whorls in the Parc Cybi roundhouse settlement, and particularly 10 spindle whorls just from roundhouse E, therefore appears unusual for the region may indicate a focus on certain specialised activities at least during the earlier phases of the settlement.

Metal objects

See volume 3, part VII for full report and figures

Forty nine iron, 34 copper alloy and 9 lead or white metal objects were catalogued. There was also one object composed of leather and copper alloy pins and a silver coin. Nine of the objects of Roman and possibly late Roman or Early Medieval date were considered of importance. Some of these are from the building complex in Area K9 and securely dated to the Roman period, but some are from the long cist cemetery. It is unclear whether the latter were intrusive and if so which period they belong to. Grave goods are not normal in long cist burials and it may be significant that all the finds from the graves were metal. They may have originated from the smithing activity carried out within the cemetery, which is radiocarbon dated to the late Roman period.

Apart from post-medieval contexts very little metal survived on the site so the 14 pieces from Area K9 were significant. All but one came from structure 80527, and had probably been used in the structure despite some being found in demolition layers. Nine pieces came from features and deposits relating to the use of the structure. Most of these metal objects were iron but there are two small lumps of copper alloy. Most of the iron objects are amorphous lumps too corroded to identify or are parts of nails, including a hobnail (sf6166). However there were two distinctive iron objects; a socketed mortice chisel (sf6064) and a cleaver with a socket for the handle (sf6186) (volume 3, Fig VII.1). The former was from an abandonment layer but the cleaver was embedded in the clay of the flat hearth next to the boulder hearth. It seems probable that these were tools used during activities carried out in the structure and around the hearths.

A knife with a blade of a similar shape to sf6186, but with a tang for the handle, was found at Caldicot, Gwent. This was smaller than the Parc Cybi example with a length of about 140mm compared to 177mm for sf6186. The Caldicot example is described as of a “common Iron Age and Romano-British type” (Boon 1988, 99). A similar tanged example was found at Sudbrook, Monmouthshire from inside an Iron Age roundhouse (Nash-Williams 1939, 79, plate IX). A large knife or chopper with a socketed handle was found at Coygan Camp, Carmarthenshire and attributed to the Roman period, though it was an unstratified find (Wainwright 1967, 100-101). However, it had a triangular blade set at a right angle to the handle, so was not identical to sf6186.

Special Objects

Small numbers of objects made of uncommon materials or particularly carefully worked have been included under the class of special objects. These include beads of amber and cannel coal, a gold object and a small group of shale bangles.

Shale objects

See volume 3, part VIII for full report and figures

Eight shale objects were catalogued including fragments of bangles and annular beads. One bead was nearly complete but the rest were all broken fragments. One piece appeared to be a waste piece from making one of these objects and might indicate local production. They all came from probable Iron Age or Roman contexts. The two bangle fragments (find nos. 27 and 275) would fit with an Iron Age/Roman date, while some of the other shale

items could well be earlier. As these objects are not closely datable they are best dated from their context than from typology.

With the exception of a fragment from Area K9 (sf2165), which might be natural, the only find that did not come from the Iron Age roundhouse settlement was bangle sf27. This was from a pit (03029) in Area B3, within an area enclosed by a possibly Iron Age or Roman period ditch (figure 84). A neighbouring pit (12003) contained a sherd of a mid-2nd century mortarium. A Roman date is therefore likely for this bangle. A fragment of a similar bangle (sf275) with an oval section, like sf27, came from the interior of structure F on the edge of the roundhouse settlement (figure 137.2). This structure was not well-dated but did contain a sherd of Roman pottery and this bangle fragment may add to the argument that this structure was used in the Roman period.

Sf772 was a similar object, a well-made and polished ring of dark shale or cannel-coal, but with an internal diameter of only 20mm it was much too small to be a bangle, but as the width of the ring was 12mm it is too thick and bulky for a finger ring. Sf772 came from the old ground surface pre-dating the roundhouse settlement but probably in use with roundhouse E (figure 138). It could easily have been trodden into this deposit, but as this layer was sealed under layers that extended beneath the wall of roundhouse B, this could only have occurred when roundhouse E alone was in use.

While not common shale armlets or bangles are occasionally found on Iron Age and Roman period sites across north-west Wales. At best half a bangle is found but usually smaller fragments are recovered, with rarely more than one per site, though two were found at Braich y Dinas, Penmaenmawr (Hughes 1922, 352). The closest find was not from an Iron Age site but was found unstratified on the cairn of the Trefignath tomb. This was half a shale bangle with a D-shaped in cross section, and at 76mm internal diameter was significantly larger than the 50mm diameter of sf27. The Trefignath bangle was subjected to XRF analysis, which showed it to be cannel-coal and locally produced (Beswick 1987; Smith 1987b, Fig. 26).

A fragment of a shale bangle or armlet was found at Cefn Du. This had an oval cross-section and an external groove running round the bangle. A smaller fragment of a shale bangle was recovered from Cefn Cwmwd, Rhostrehwfa (Cool and Bevan 2012, 150). Both these sites were roundhouse settlements used into the Roman period. At Cefn Graeanog II, Clynnog a fragment of a bracelet or armlet, D-shaped in section, was found in courtyard near hut C. This structure was part of the Roman activity on the site and dated after AD 150 (Mason and Fasham 1998, 41).

Hillforts have also produced pieces of bangle, with two pieces being found on Braich y Dinas, Penmaenmawr, one from each of two roundhouses. One bangle had a circular cross-section and one D-shaped (Hughes 1922, 352). A fragment of a jet-like or shale bangle was recovered from the enclosed roundhouse settlement at Meillionydd on the Llŷn Peninsula (Waddington and Karl 2016, 24). Current dates suggest a Late Bronze Age or Early Iron Age date for this settlement but excavation and analysis is on-going. Griffith (1892) found a part of a shale bangle from an enclosed roundhouse settlement at Plas-bach, Cerrig Ceinwen, Aberffraw. The catalogue entry for this collection shows that half a jet-like bracelet, as well as four other fragments, was found (Lynch 1986, 74). Two pieces of shale bangle were recovered in the enclosed settlement at Hafotty Wern Lâs, Rhostryfan, again one with a circular cross-section and one with a flattened oval or more D-shaped cross section (Williams 1923, 104).

A Roman date for this object type is confirmed by fragments of shale bracelets found in the fort of Segontium, Caernarfon. Pieces of four bracelets were found, one with a D-shaped cross-section, two with oval sections and one with a rectangular section. This last example was decorated with incised lines. These were black in colour and highly polished, so closely imitating jet (Allason-Jones 1993, 165, 206, 208). It is not possible to date plain bracelets. Though finer examples and those that are decorated are likely to be Roman and made with a lathe there were still heavier undecorated examples being produced in the Roman period (Lawson 1976, 248), so not all these can be assumed to be Iron Age especially in north-west Wales where lathes may not have been widely used in the Roman period.

Smaller shale rings more similar to sf772 from Parc Cybi than the bangles have also been found. At Castell Odo, close to Meillionydd on the Llŷn Peninsula, a ring described as being of jet or lignite was found (Alcock 1960, 132). This reconstructed as having an internal diameter of only 38mm, too small for a bangle, even for a child but too large for a finger ring. It also had a D-shaped cross-section. A similar shale ring was found at Cefn Du, Gaerwen. This had an internal diameter of 25mm but the ring itself was wide at about 17mm. The Cefn Du ring is suggested as a possible harness loop (Cool and Bevan 2012, 150). Stanley also found a similar small stone ring made in a white stone at Tŷ Mawr (Stanley 1869, 304), which he suggested was a brooch. It seems likely that these

smaller rings were not for personal ornament but had other, practical functions. Lawson (1976, 247) suggests these small rings were used as hair rings or dress fastenings.

Unlike jet objects those made of shale or cannel-coal “appear to have been locally produced items of low status value” (Beswick 1987). The fine workmanship of these objects makes the interpretation of low status as questionable, especially in the Iron Age on Anglesey where objects of fine workmanship or exotic materials are rare, at least ones that survive.

Bangles or armlets were made of materials other than shale, but these were even rarer. A twisted bronze bangle was found at Din Lligwy (Bayes 1930, 380) and pieces of at least seven glass bangles at Bryn y Castell (Crew 1980a, 30). These do show that these items of personal ornamentation were desirable in the Iron Age and into the Roman period and the shale versions may have been the more affordable end of the range.

The other shale objects from Parc Cybi were all small rings (sf353, 381 and 739) or in one case (sf413) probably a piece of waste from making a ring. These were all small with an external diameter of no more than 20mm and an internal diameter of up to 11mm. Sf381 came from over roundhouse E, sf413 from inside roundhouse E and sf739 from a floor layer in roundhouse C (figure 138). Sf353 came from the Early Iron Age layer under roundhouse A and over the stone platform, so it is possible that this is of an earlier date than the others. While these are quite well-made they are not finely finished like the bangles and were probably for practical purposes, and were made on the site.

Cannel coal and amber beads

Alison Sheridan and Lore Troalen

See volume 3, part IX for full report and figures

Two special beads were found; a roughout for a large cannel coal bead from a pit just north of the Early Neolithic rectangular building, and about a third of a large bulbous amber bead from east of the main roundhouse settlement.

Cannel coal bead roughout

The cannel coal bead was actually an abandoned roughout for a bead found in the fill of posthole 50010, just north of the Early Neolithic Building in Area H. Material from the posthole fill was radiocarbon dated to 3660–3530 cal BC (SUERC-81332) and 3790–3660 cal BC (SUERC-83265). The bead roughout measures 31.7 mm long, 25.3 mm wide and 10.5 mm in thickness, and weighs 6g (volume 3, Fig IX.1.1). It is essentially a partly-modified pebble, sub-rectangular in plan, with one flattish lower side and one naturally-domed upper side. The latter seems to preserve some of the pebble’s original outer surface, which has a medium to high, satiny sheen, which is probably natural: there are no obvious signs that it had been polished. The object is of a black, compact material that has been identified analytically as cannel coal.

The roughout displays a particularly interesting chaîne opératoire, since there had clearly been a change of plan part-way through its shaping. First, the outer edge of the pebble was ground to create a faceted edge. The shape of the lower side was also amended through grinding, presumably with the aim of flattening the surface. The top of the domed surface was ground, to level it off, although the grinding has actually created a shallow dished area.

It appears that the maker then started to cut the piece in half along its short axis, since on the upper and lower surfaces there are shallow linear hollows that are cut by a subsequent attempt to drill a hole through the pebble; that on the lower surface runs virtually to the edge of the roughout. On the upper surface, the linear hollow just extends across the dished surface, not beyond it. The shallow, flattened U-shape of the linear hollows suggests that a cord, plus abrasive and water, had been used to effect the cuts.

At this point, there seems to have been a change of plan, from cutting the item in two to perforating it instead, with a hole being initiated roughly at the centre of the object from both sides, cutting through the linear hollows. A broad drill with a pointed end seems to have been used, and rilling from the drill’s rotation can be seen in each of the hollows; in neither case is the outer edge of the hole a neat circle. The observed marks could theoretically have been made using a flint drill. For an unknown reason, the process of drilling the hole was abandoned and the roughout seems to have been discarded.

The raw material is a compact black material, warm to the touch, and finely laminar. Elemental analysis using X-ray fluorescence spectrometry, undertaken at NMS, confirmed that the material is definitely not jet. Compositionally it matches cannel coal, and this is consistent with the satiny sheen of the upper surface, an identification as cannel coal seems the most likely. Whether the material had been obtained locally can only be determined by sampling and comparative analysis of superficial material from the Coal Measures on Anglesey. Cannel coal is available at many locations in Wales; since this item seems to have been made from a water-worn pebble, it may well have been picked up from the coast or a riverbed, where it will have stood out by its colour and sheen. It is suspected that the pebble had probably been found within a few kilometres of Parc Cybi.

This is a most intriguing object that finds no ready parallel among Early Neolithic artefacts of cannel coal, shale, lignite or jet anywhere in Britain. It does not appear to have been destined to be one of the large, so-called ‘monster beads’, belonging to the second quarter of the fourth millennium BC, that have been found in various locations in England and Scotland. It differs from these distinctive beads in that it is neither flattish-circular nor elliptical, and its perforation is transverse, rather than longitudinal. Moreover, it is smaller than most ‘monster beads’. Nevertheless, the desire to perforate and wear a piece of black, soft stone may conceivably relate to a Neolithic (and later) belief in the apotropaic and/or healing power of jet – and, by extension, to other materials that look more or less like jet (Sheridan 2017). What makes jet special is its ability to float and be burnt, and its electrostatic property. Other similar-looking materials lack jet’s electrostatic property, although some, including cannel coal, can be burnt. Artefacts of jet and jet-like materials are not associated with the earliest Neolithic in Britain; they appeared several generations later, by which time extensive connections between farming communities were long established. Ideas and beliefs, including beliefs about the specific qualities of certain materials, could have circulated widely around such networks of contacts. Whether the cannel coal pebble had been selected because of a belief in its special abilities to heal or protect, or simply because it was unusual, shiny, attractive and easy to work, is impossible to determine.

Within the broader context of Neolithic jet and jet-like artefacts in Wales, the Parc Cybi bead throughout is the oldest such object. The only other Neolithic objects are a throughout for a Middle Neolithic belt slider found at Ogmores-by-Sea, Glamorgan (Burrow 2011, 30) and two finished belt sliders, described as being of jet, found at Gop Cave, Clwyd, in 1886/7 (Boyd Dawkins 1901; McInnes 1968; Sheridan and Davis 1998; Sheridan 2012). By analogy with dated examples elsewhere, these are around half a millennium later than the Parc Cybi object, and they are wholly unrelated. As for the pre-Neolithic use of jet-like material in Wales, there is the intriguing Mesolithic find of nearly 700 finished and partly-worked beads, roughly disc-shaped, at Nab Head, Dyfed (David 1997); these are made of local blue-grey shale, and again they are wholly unrelated to the Parc Cybi object. There is no suggestion that the choice of material there had been related to a desire to emulate artefacts of jet.

Amber bead fragment

The amber bead fragment (SF639) was found in context 92129, an old ground surface under a post-medieval stone surface to the east of the roundhouse settlement in Area B2. The layer also produced a light hammer stone (sf634). The fragment constitutes around a third of a bulbous, chunky, irregularly-shaped opaque amber bead, measuring 13.7 mm by 19.8 mm, with a longitudinal perforation 2.8 mm in diameter, and weighing 1.64g (volume 3, Fig IX.2.1). The bead’s overall shape had probably been sub-globular, its irregularity partly due to the shape of the pebble from which it had been made. The perforation had been drilled from both ends and there are clear traces of the rilling left by the rotation of the drill. There are no obvious traces of use-wear.

The bead had broken in antiquity and the cause of the breakage was almost certainly an attempt to cut or saw the bead in half. The sharpness of the cut, and the compression of the amber surface along the cut, suggests that a narrow metal tool had been used, although examination of the bead at high magnification failed to reveal any trace of metal residue in the cut.

Assigning a date to the bead is not easy, although it is most unlikely to be earlier than Late Bronze Age, both on typological grounds and because the kind of blade used to cut it (assuming that it was not very old when cut). Indeed, one cannot rule out a medieval or post-medieval date for the bead, although it is clearly not a medieval rosary bead, nor is its shape that of the 18th–19th century ‘lammer’ (l’ambre) beads that were popular in Scotland (Ross and Sheridan 2013) to ward off evil and to cure eye ailments. Amber beads were also worn in Wales for the same purpose, up to the 20th century (Jones 1980, 66; Roelf 1997, 108). As far as potential *comparanda* are concerned, several Late Bronze Age and Iron Age amber beads are known from Wales (Beck and Shennan 1991), including two Late Bronze Age finds (of five and 16 beads respectively) from hoards at Holyhead and Llangwyllog on Anglesey (*ibid.*, 192, 193 and fig. 11.23; Lynch 1991, 246, 242; Sheridan and Davis 1998). The beads from

Holyhead were found close to the Tŷ Mawr ‘hut circles’. The Anglesey beads are more slender than the projected shape of the Parc Cybi bead, but are of comparable size. The Iron Age bead from the Caerau promontory fort, Henllan, Dyfed (Beck and Shennan 1991, 192 and fig. 11.22.3) is also more slender than the Parc Cybi example.

As for why the bead was being cut up, it may be that the rarity of amber was such that its owner wished to share this precious object with someone else; the cutting does not seem to have been a deliberate act of destruction, as it would have been far easier to smash the bead by hitting it, if destruction was the aim. It may well be that amber was ascribed special powers and used as an amulet, due to its natural properties of being an unusual type of stone, warm to the touch, capable of floating and being burnt, glowing with the sun’s rays and being electrostatic. As noted above, various healing powers have been ascribed to it at various periods up to the present, including a post-medieval belief in rural Wales and Scotland of its ability to treat blindness (Jones 1980, 66; Roolf 1997, 108; Ross and Sheridan 2013).

Gold penannular ring

Adam Gwilt and Mary Davis

See volume 3, part X for full report and figures

A small gold penannular ring (sf784) was found within the lower fill of a ditch (92615) located on the edge of the roundhouse settlement (figure 61). There were no associated finds from the ditch and no radiocarbon dating was possible as there was no suitable material for dating. The ring, 14.8mm in external diameter, is made of sheet gold with a hollow interior (volume 3, part X, fig X.1). It is now formed into an unevenly shaped open tube of penannular shape, the internal edges being separated by a gap of 1-1.5mm. The terminals are simple, but have been trimmed back and folded at the sides to give a slightly curved profile. There is no evidence of decoration but the exterior surfaces around the outer circumference have a series of pronounced dints, which are likely to have been created during the shaping of the hollow ring. On a top surface at the back of the ring, there is an angular compression crimp, resulting in a small tear through the sheet along the top and down the interior surface of the sheet-ring.

In style and making technique the Parc Cybi ring invites parallels both with small ring forms of the Middle Bronze Age and with ‘hair-rings’, also sometimes termed ‘ring-money’ of the Ewart Park phase of the Late Bronze Age. In Wales, a close parallel, in terms of style, size and technique, with the Parc Cybi ring has been found with a small C-sectioned penannular ring of sheet construction in the Middle Bronze Age gold jewellery and bronze tool hoard from Burton, Wrexham (Gwilt *et al* 2004, No. 5; 2007, No. 4; Gwilt 2005; 2009; Barton 2011; Davis and Gwilt *in prep.*; AC-NMW Mus. Acc. No.2005.68H/8), which included objects that may be securely dated to the Penard phase of the Middle Bronze Age (1300-1150 BC). While simple C-sectioned rings, such as the Burton example, are rare in Britain, one appears to have been found in Windsor, Berkshire (Byard 2009) and there is another recent find from Norfolk (Finds of the Month June 2018). Very similar gold penannular rings, formed of two or three C-sectioned rings soldered together to give a composite and corrugated cross-section have recently been discovered and recorded at Wix, Essex; Gayton Le Marsh, Lincolnshire and on the Isle of Wight (Basford 2005; McLean 2009; Daubney 2011). These small gold penannular rings of Middle Bronze Age date were probably items of personal adornment, although their precise location on the body has not been defined or specified. Where found in hoards, they have repeatedly been discovered threaded onto larger gold torcs, bracelets or gold bars.

Despite these observed similarities, the Parc Cybi penannular ring also shows divergent characteristics. The inward curve in the sheet on the interior side, to generate an irregular-shaped open tube, might in some ways appear to anticipate the development of round-sectioned hair-rings with solid cores. Furthermore, the quality of working and forming of this hollow ring has been executed in a more rudimentary and inexpert way. These characteristics could be consistent with two further possibilities: firstly, that the penannular ring may be an early predecessor of hair-rings proper and made in the later Middle Bronze Age or early part of the Late Bronze Age (1300-1000 BC); or alternatively, that this is an atypical variation on the hair-ring theme, made during the period of their main currency during the Ewart Park phase of the Late Bronze Age (1000-800 BC).

Hair-rings were probably used as hair, ear or nose ornaments, as their small internal diameters and thick cross-sections preclude their use as finger- or toe-rings. They are abundant in Ireland, where over 130 have been recorded, however, during the last twenty years many more examples have been discovered and reported as single finds and hoard associations in England and Wales, where approaching 100 examples are now known. To this

may be added around 25 examples from Scotland (O'Connor, *pers. comm.*), now showing them also to have been common small adornments across Britain.

Dating the development and currency of hair-rings in Britain remains problematic, especially for the large number of recently discovered single metal-detector finds. However, the existing hoard associations and independent radiocarbon dating evidence does indicate a concentration during the Late Bronze Age, and particularly the Ewart Park phase (1000-800 BC), with some evidence of their continued deposition into the Earliest Iron Age (800-600BC) in Scotland and on a few hillfort sites (Eogan 1997; Learey 2018, 28-32). However, in recent years, the evidence for their possible earlier development and currency in Britain and Ireland has been growing. This raises the possibility that the Parc Cybi ring could have been made as early as the Penard phase of the Middle Bronze Age (1300-1150 BC).

The current known number of hair-rings in Wales still remains modest at five certain examples of known provenance, one example of uncertain provenance, and the gold foil deriving from another, in addition to the Parc Cybi ring. In 2013, a hair-ring of solid gold construction with inlaid electrum was reported as a metal-detector find in Cwm Cadnant Community on the south-east side of Anglesey, a component of a scattered hoard, also comprising three fragments of copper plano-convex ingots of probable Ewart Park date (1000-800 BC) (Gwilt *et al* 2014; Gwilt 2015). A further single hair-ring was discovered around 1970 on Graianog Farm, near Llanllyfni, Gwynedd (AC-NMW - Accession number 1985.127H). In south Wales, three hair-rings have been discovered as single metal-detector discoveries and reported as treasure: Brynmill, Swansea Bay, Swansea (Gwilt and Davis 2002; Gwilt 2004), Port Eynon, Gower, Swansea (Gwilt 1999; 2000; Williams 2006) and St Donats Community, Vale of Glamorgan (Gwilt and Davis 2012; 2013; Gwilt 2014; Parol and Richardson 2014). A fragment of gold foil, possibly from a hair-ring missing its core, was also discovered during excavations of a Later Bronze Age settlement at Llanmaes, Vale of Glamorgan (Gwilt and Lodwick 2008; 2010; Gwilt *et al* 2009; 2016, 302). In August 2006, a further hair-ring with a copper alloy core and a plain gold foil surface, stated as from 'Carmarthenshire', was offered for sale online but was never directly seen or reported. The variety of size, weight and decorative traits evident in the hair-rings from Wales echoes the wider observed pattern of diversity in style and technique across Britain and Ireland.

In general terms, increasing levels of deliberate copper additions are observed within gold artefact alloy compositions, as the Bronze Age progresses, from Early to Middle and Late (Davis 2005, 36, Fig. 4; current report volume 3 Fig. X.3). During the Chalcolithic and Early Bronze Age, copper levels in gold may be minimal and are typically at less than 1%, with copper levels increasing typically to 3-6% by the later Middle Bronze Age and in the range of 4-10% by the Late Bronze Age. Therefore, identifying the amount of copper observed within the Parc Cybi ring had the potential to provide independently derived information to inform the wider technical and stylistic dating discussion. Analysis of the gold composition of the ring in a small scraped area, beneath the copper depleted surface, has indicated normalised mean gold and silver compositions of 79.9% and 14.4% respectively, with a normalised mean copper composition of 5.6% (Davis, volume 3 part X). This has illustrated the importance of not relying solely upon surface analyses of gold artefacts as comparison of surface and sub-surface analyses has indicated a five- to six-fold depletion in the percentage of copper and a four- to five-fold depletion in the percentage of silver present in the surface alloy composition. The observed copper composition of 5.6% sits within the overlap zone characterising the compositions of both late Middle Bronze Age (1300-1150 BC) and Late Bronze Age (1150-800 BC) gold artefacts in Wales. Consequently, the possibilities of either a late Middle Bronze Age date or a Late Bronze Age date, both remain tenable.

In Britain, Middle and Late Bronze Age rings and hair-rings have most frequently been discovered as single metal-detector finds, but they have also been repeatedly found as components of hoards. Whereas in France, Belgium and The Netherlands, they are frequently associated with cremation burials as grave goods (Eogan 1997), in Britain, known associations with human remains are extremely uncommon (Learey 2018, 33, Fig. 14). On the basis of this wider observed pattern, it would seem unlikely that the penannular ring was disturbed from an earlier burial, whereas its deposition in association with a Middle or Late Bronze Age field system seems most plausible. While no further diagnostic artefact or ecofact finds were made in association with the ring, it is possible that the field entrance, marking the transition between the interior and exterior space was viewed as symbolically and socially significant to the community farming in this landscape locality. As such, it is possible that the ring may have been intentionally placed as a single artefact, representing a structured deposit at the internal corner of the funnel field entrance. The penannular ring could have been an heirloom, in circulation for centuries before being buried, or equally it may have had a short use-life, therefore being of similar date to the use and infilling of the field boundary.

Archaeometallurgical residues

Tim Young

See volume 3, part XII for full report and figures

See figure 139 for location of smithing sites

Material collected by hand and from wet sieving was assessed and detailed investigations were made of the three richest assemblages (see volume 3 part XII for methodology and detailed results). The samples include a variety of archaeometallurgical materials, including approximately 3.6kg of identifiable smithing hearth cakes, 1.5 kg of iron slag probably from smithing, 4.9kg of hammerscale and other smithing microresidues and 0.6kg of vitrified hearth lining. Materials that were probably not of metallurgical origin included 16.8kg of fired clay and much of the 0.8kg of 'fuel ash slag'.

The residues provide very slight evidence for iron smithing in the Iron Age, for a variety of low temperature processes in the Roman period, and for three blacksmithies of late Roman, late medieval and post-medieval date.

The low density fuel ash slag resembles material produced in long-lived fires. These slags are not indicative of metallurgical activity and the contexts in which such slags have been found on other sites include corn-drying ovens and long-lived domestic hearths, particularly of Iron Age date. It is likely that there is no one single origin behind the large quantity of fired clay. The most common type of fired clay seems likely to have been employed structurally, possibly as flooring and often within hearths and kilns.

Two pieces of a black glassy material were found in the area of the Early Neolithic building, one from the ploughsoil (2070) over the building and the other from the old ground surface (2093) beneath it. Analysis showed that these were anthropogenic, produced at a high temperature and probably from a smithing hearth near the blowhole. These are therefore obviously intrusive and not related to the building. Similar material was found in corn-dryer 21051 where it might possibly have been produced but, if so, it suggests an accidental fire in the dryer that got to very high temperatures.

A pit (30082) to the west of the roundhouse settlement produced 102g of fire clay and slag. This included fired clay from a heath wall beside blowhole, was a vitrified face thickening towards the blowhole position. There were other pieces of fire clay without vitrified faces, one small isolated slag fragment and one probable tubular concretion, as well as small fragments of ashy/charcoal-rich concretion, some pieces with flake hammerscale. It was speculated that this may be debris from smithing related to the roundhouse settlement and it was hoped to date this feature to test that suggestion, but no datable material was present in the soil samples recovered from the fill so dating was not possible.

The roundhouse settlement contained little evidence of metal-working. There were occasional small fragments of slag, some of which could be intrusive and some burnt clay but that could be from domestic hearths. Structure 93004 (part of the site recorded as structure G) and surrounding deposits produced 742.5g of slag and burnt clay. Most of this material was fuel ash slags, some in large blocks, and some containing vitrified stone, but there was also a piece of iron-rich slag possibly the lower crust of a smithing hearth cake. This latter piece came from a cobbled surface (92633) not far below the ploughsoil so it is possible that this is intrusive, but the fuel-ash slags came from postholes of structure 93003 and from a layer sealing the postholes. Structure 93003 was a granary and it is possible the fuel-ash slags were produced when it burnt down. However, there was little charcoal from the deposits containing the slags and the burning of a granary, if it was full at the time, would have resulted in large quantities of charred grain, which was certainly not found. The origin of the fuel ash slags is therefore unclear.

The three blacksmithing assemblages were analysed in more detail. These were from three separate locations: Area K7, Area E and Area B2. In Area K7 the smithing occurred in features within the area of the cemetery, including one feature that appeared to have reused a grave. This activity was radiocarbon dated to the late Roman period (cal AD 330–530 (SUERC-81362) and cal AD 250–410 (SUERC-81363)). In Area E smithing activity was found within the farmyard of the 18th century Tyddyn Pioden but features relating to the smithing were stratigraphically earlier than the farmyard. Dates of cal AD 1020–1160 (SUERC-87442) and cal AD 1020–1190 (SUERC-87443) were obtained from pit 31152, which contained the smithing residue. The smithing in Area B2 appears to have been related to the Pen y Lôn farmstead, though it was some distance from the house. In this case coal was used for fuel and this seems to have contaminated the charcoal samples recovered for radiocarbon

dating, as both samples produced background results. This smithing activity therefore could not be dated, but a late post-medieval date is assumed.

The assemblages were poor in macroscopic slag residues, therefore the investigation employed innovative approaches for the examination of microresidues (hammerscale). The analytical programme addressed the possibility of detecting differences in the smithing technology or application from the microresidues, to determine whether the character or purpose of the rural blacksmithing had changed over time.

The analysis demonstrates the importance of the hearth lining in controlling both the composition of the smithing slag and, more surprisingly, the evolution of the hammerscale. For the coal-fuelled smithing in Area B2 the fuel ash was also an important control on slag composition. The variable use of a quartz-rich smithing flux was also suggested by the bulk composition of the hammerscale and was particularly clear in the evidence from Area K7, possibly suggesting the working of carbon steels. The bulk analyses of particles from Area K7 also showed some contamination from the working of copper alloy, supported by the macro-residues and finds from the area.

The microanalyses also suggest that the phosphorus and manganese content of the hammerscale was largely inherited from the iron from which it was formed. The hammerscale from Area K7 showed high levels of phosphorus and slightly elevated manganese; that from Area E was similar, with very slightly lower average phosphorus, but with the manganese content of some hammerscale being strongly elevated. These data suggest that the iron worked in these areas was mostly bloomery iron smelted from a bog iron ore. The levels of manganese and phosphorus were generally lowest for the samples from Area B2, indicating either the use of a different bloomery iron or an industrial wrought iron.

The smithing hearth cakes from Areas E and B2 were relatively large indicating a considerable loss of iron to the hearth during the work-periods they represent. Such cakes will be generated during intense and prolonged activity, more usually encountered in continuously-working busy forges, than in smithies of low-status rural settlements. The weights of the smithing hearth cakes from Area E are high for blacksmithing assemblages of medieval date from England, and the only assemblages of comparable date from Wales are from South Hook, Pembrokeshire (Young 2010a and 2010c; a probably 8th - 10th century iron production site) and from Hen Gastell, Llanwnda (Young 2017; a site dating to the 11th or 12th century like Area E). The smithing hearth cakes from Areas E represent end use blacksmithing, rather than bloomsmithing, but with a rather high iron loss. This may indicate that the raw iron arrived at the smithy in a less than fully processed form, a mode of distribution be particularly associated with the production of split blooms.

In summary, the smiths of Area K7 were working in metals including both copper alloys and phosphoric bloomery iron, with some evidence of the use of carbon steels too. In Area E, the smithing was also of high phosphorus bloomery iron, but with either a higher manganese content in at least some of the iron being worked. In both Areas K7 and E, the smiths employed charcoal as fuel and worked in clay hearths. In contrast the ironworking in Area B2 apparently mostly, but not entirely, employed a low-phosphorus, low-manganese iron, compatible with a bloomery iron or with a post-medieval fined wrought iron, but not with a modern bulk steel.

In both Areas E and B2 the large smithing hearth cakes indicate intense activity, unlikely for smithing undertaken on an occasional basis by local farmers. However, the sparse assemblages do not appear to be compatible with the existence of busy permanent smithies in those areas, nor is there any structural evidence for smithies. One possible explanation is that the smithing was undertaken by itinerant smiths. The location of the Roman smithing phase of Area K7 within a cemetery may also possibly suggest an occasional activity and itinerant workers.

ENVIRONMENTAL DATA

Studies of the marshes and pollen analysis

See volume 3, part XX for full reports and figures

There were three principal areas of peat within the site boundary, lying within Areas K, F/G and E. The deposit within Area K lay at the north-eastern corner of the site, and formed a wet, marshy area with some open water surrounded by reeds. The deposits were known to be some 2m deep, and were partially examined for pollen in 1979 during excavations at Trefignath. The peat within Areas F and G lies alongside an open ditch in a low-lying valley. The deposits within Area E lie within a low-lying depression that is parallel to that in Area F.

These deposits all had potential for preserving environmental evidence. The level of the marsh in Area K was to be reduced to enable it to act as a drainage sump for the site. This therefore required extensive mitigation measures. In Area F and G the current works had little impact on the marsh but future works may impact at least the marsh edges, so this area had to be evaluated. The area of peat in Area E was avoided by the stripping for this phase of the project and is still to be investigated.

Pollen assessments were carried out on two cores from Area G and one from Area K and initial radiocarbon dates were obtained on these cores to allow provisional zoning. However due to the delay in undertaking the final post-excavation work the cores deteriorated and were not suitable for further work. They were therefore discarded and full pollen analysis was not carried out. The pollen results presented are therefore from preliminary data not full analysis.

Marsh in Areas F and G

The marsh in the adjacent Areas F and G fills a long, natural basin running roughly east-west. Until the present project it was drained by an open drain and a culvert constructed in the mid-19th century. Drainage has been improved as part of the current development, but water levels have been regulated to maintain the marshland.

A series of test pits and cores have established approximately the area of the peat and, over much of the basin, its depth (figure 140). Test pits were dug across the site in October 2006 as part of the geotechnical survey (J. A. Roberts 2006), including several of these test pits were located around the marsh, although most investigation intended within the marsh was not carried out. Two trenches dug for the archaeological evaluation phase (trenches B20 and B21) extended into the edge of the marsh (Davidson and Roberts 2004) and trench A34 was located on the edge of the marsh (Davidson 2002). What was initially thought to be a cobbled surface was found in trench A34 (PRN 18407), but this seems more likely to have been just stones embedded in the natural boulder clay (Davidson *et al* 2004). More test pits were dug within the marsh in 2007 specifically to determine the depth of the peat (Jones Brothers pers com). Ten core samples were taken by Birmingham Archaeo-Environmental in August 2007, one of which was selected for pollen assessment. Also in August 2007 a trench for an electricity cable was dug into the eastern margin of the marsh in Area F and the peat depth was recorded in this. In April 2008 two trenches were dug entirely under archaeological supervision on the northern shores of the marsh close to significant archaeological features in Area F1.

Taken together these investigations revealed a maximum depth of over 4m of peat and fine organic mud (gyttja), over a grey silty clay. The clay was deposited when the basin was an open lake and the gyttja represents more organic freshwater deposits. The peat is the result of this small lake filling in and becoming a marsh. The bottom of the basin seems to be fairly uneven as the peat becomes shallower towards the north-eastern end of the marsh but then becomes deeper again just before the marsh edge. The cable trench at the north-eastern end of the marsh showed the peat here to be unexpectedly shallow, being from 0.30m to 0.75m deep, but at its deepest close to the edge of the marsh. The peat is also consistently shallower towards the south-western end of the marsh. The sides of the basin seem to be very steep in places.

The trenches on the northern side of the marsh revealed the limits of the peat deposits and exposed deposits of densely packed bark (plates 81 and 82), that appeared to be the remains of fallen trees and branches (figure 59). The conditions at the time of deposition had caused the wood to rot away but the more resistant bark to be preserved. Conditions for wood preservation were better both before and after the bark deposits were laid down as wood did survive above and below this level. Under the bark deposits was a brushwood peat with randomly distributed small branches and twigs. The base of the peat was not reached in either of these trenches showing that a considerable depth of peat does survive around the marsh edges. Bark from this deposit, which was mostly of

birch, was radiocarbon dated to 8230 - 7820 cal BC (KIA40119).

The trenches revealed the relationship between dry and wetland deposits. The peat became more degraded at the edge of the marsh but continued as a thin deposit well onto what is now dryland. A gleyed clay underlay the edge of the marsh but as the substrate changed to well-drained altered bedrock the peaty soil horizon that had developed on the clay became a more typical organic A horizon. The original edge of the basin was exposed and shown to be steep and well-defined. The basin was probably formed by the uneven deposition of glacial clays in the undulations of the bedrock.

Pollen assessment and initial radiocarbon dating was carried out on two of the peat cores taken (core 1 and core 8). The lowest dated sample produced a date of 11480-11210 cal BC (Beta-263631), but this would place the basal zone of Core 1 within the warmer period of the Late-glacial Interstadial, which would seem unlikely given that there is no evidence of the cold period of the Loch Lomond Stadial (*c.* 12600-11,400 cal. BP). It is probable that the dated material included re-worked older carbon and the date obtained was anomalously old. The sequence of deposits probably started towards the end of the Loch Lomond Stadial and represents the gradual transition from freshwater to terrestrial depositional conditions in a raised bog. The pollen evidence indicates that following a period of open grassland vegetation, birch scrub or woodland expanded. The fall in grasses and disappearance of herbs after the basal zone suggests that the woodland was relatively dense and that this marks the opening of the Holocene and the basal zone represents the very end of the glacial period.

By the end of zone 3 total tree and shrub percentages have increased to around 80%, whilst the abundance of herbaceous taxa, in particular grasses and sedges, are reduced but remain sufficient to reflect some open habitats. The rise in ferns supports the evidence for dense and closed woodland canopy with a damp shady understory. The final zone is marked by a significant rise in hazel and willow at the expense of birch, marking the beginnings of the establishment of the Holocene woodland cover. Hazel is likely to have formed fringing woodland on the dryland margins of the site, whilst other trees species do not seem to have been significant locally at this time. By the close of the diagram, dated to 8280-7960 cal BC (Beta-263630), the impression is of a generally wooded landscape of mixed woodland, consisting largely of hazel, birch, alder and willow. Few herbs are recorded indicating a generally closed woodland, with common reed on the damper soils and alder expanding into reedswamp communities.

One of the most significant aspects of the pollen data from Parc Cybi relates to the presence of alder during the Late-glacial/early Holocene. Alder is generally accepted to have migrated into Britain from Western Germany or Holland, establishing itself in south-eastern England by 8,000 years BP (Tallantire, 1992). Alder then gradually spread throughout Britain over the following *c.* 1,000 years. Despite the possible problems with the dating of Core 1, alder pollen in the early part of the core indicates that alder was in northwest Wales much earlier than expected.

The early Holocene (Mesolithic) date for the close of the diagram suggests that either a significant hiatus in peat accumulation is present at the site, or that peat cutting has taken place in the historic period, resulting in much of the overlying sedimentary sequence being removed. The latter explanation is likely due to the known influence of peat cutting and the lack of the later Holocene record from other sites on Anglesey.

The pollen spectra from Area G Core 8 also suggest that Late-glacial/early Holocene deposits are present at this location, with the basal sample dominated by grasses and sedges and the uppermost sample containing high values for birch.

A monolith (sample 5039) was taken through the upper peat on the north-western limit of the marsh in Area F (figure 60.2) and assessed for pollen. This deposit incorporated a densely packed birch bark layer. In addition four pollen sub-samples (samples 5040, 5041, 5042 and 5043) were taken through a deposit identified as the A-horizon of the buried soil on the dryland (figure 60.2). The buried soil was investigated under most of Area F1, where it was sealed by a thick gravelly deposit probably related to the roundhouse settlement and discussed above (see B2/F1 section). The buried soil was found to be a more or less degraded peaty deposit over boulder clay and frost sorted stones. No human activity was recorded from this layer with the possible exception of an area of burning; charcoal from which was radiocarbon dated to 1970–1760 cal BC (KIA40120) and 2470–2210 cal BC (SUERC-83305).

The pollen sequence from the marsh edge monolith indicated a phase of early Holocene vegetation development. The landscape was initially dominated by hazel scrub, with some willow carr, and ferns in the damp, shady habitats formed by scrub on the edge of the marsh. The subsequent rise in oak and alder produced a fairly dense

woodland. At the top of the diagram heather spread onto drier contexts on the wetland itself. It is highly likely that this sequence has been truncated by peat cutting.

The four sub-samples from the A-horizon of the buried soil indicated a generally closed mixed woodland environment with limited evidence for open or disturbed areas in the near vicinity of the sampling site. The radiocarbon dates obtained on charcoal from the continuation of the same layer suggest that the pollen sequence represents a landscape that at least remained wooded into the Bronze Age, with very little evidence for anthropogenic disturbance to the vegetation. Despite the loss of the later part of the pollen record in the marsh due to peat cutting this provides some indication of later vegetation.

The marsh in Area K6

In Area K a small sub-circular natural basin, measuring some 60m in diameter, had accumulated peat deposits. In 1979 this hollow was sampled and analysed for pollen, though the author of the report states that the amount of time available was limited and that 'the intervals between the peat samples are wider than desirable' (Greig 1987, 39).

The 1979 study revealed a depth of peat of 2.1m, developed on glacial debris. The pollen analysis showed a vegetation succession through tundra to climax forest and the elm decline. The climax forest consisted of oak, elm and ivy with hazel possibly as an understory, and lime being very rare. A carr of alder and oak would have been present on the fringes of the marsh. Samples around the elm decline, therefore Early Neolithic, had very poor pollen preservation and plant macrofossils and insect remains indicated a fluctuating water table. There was also an increased amount of charcoal and mineral remains suggesting fires and erosion locally. Later samples indicated open grassland and arable fields, with heather pollen suggesting that some heathland had begun to form (Greig 1987, 39-42).

Greig (1987, 39) concluded that the basin was not a kettle-hole as there was no evidence of clay deposited in deep water. He considered that the bog had originally covered a much wider area, but was cut by the Holyhead to Chester railway line. The construction of the A55 has since reduced the area of bog to the small patch in Area K. The bog was not studied during archaeological works in advance of the A55.

For the current project, before any disturbance occurred to this marsh, Birmingham Archaeo-Environmental took a total of 13 cores on two intersecting transects across the marsh (figure 141). The deposits identified tended to be fairly shallow (up to c. 0.50 m) and consisted of stiff, grey, slightly organic clayey-silt over gravels or bedrock. The exception to this was in the western part of the area, where the capping silty clay trended into dark brown well humified silty peat with wood, grasses and sedge remains, which in turn overlay grey-green *gyttja*. These deposits were deepest at Core 13, with a total depth of nearly 3.0 m, and this core was selected for pollen assessment. Pollen samples were taken from 0.46 m and 2.10 m depth and pollen preservation was high. The deposits in Area K have probably been significantly reduced by peat cutting, but deeper sequences did survive which probably related to the early-mid Holocene. The basal pollen sample was dominated by grasses and sedges with low values for tree and shrub taxa, while the upper sample was dominated by alder with birch, pine, hazel and ivy present. Herbs are absent, but fern spores are recorded. Unfortunately the failure to obtain full analysis of this core means that Greig's study remains the most detailed record of this marsh.

The shallower outer peat deposits were entirely removed by machine with archaeological monitoring. In the deepest part of the marsh a 2m deep trench had to be excavated and backfilled with hard core to enable a mechanical excavator to reach this area. As digging proceeded spoil was checked visually and with metal detectors, and timber and other artefacts removed. No *in situ* timber features were identified. An overlapping series of monoliths and bulk samples were recovered from the deepest part of the marsh covering a peat sequence up to 2m deep.

Seven bulk samples from the marsh in Area K6 were assessed for plant macrofossil and beetle remains. The preservation of plant macrofossils was good and the range of species recorded demonstrate a transition from an acidic mire with areas of open water to a damp sedge and grass dominated fen. The preservation of beetles was poor and the range of taxa recorded does not provide significant information regarding past environmental change.

On the western edge of the marsh (figure 141) there was a deposit composed of rubble with patches silty clay and pebbles (80290). This overlay the peat and incorporated 20th century rubbish such as vehicle tyres and pieces of farm machinery. It appears to have been either a dump or an attempt to stabilise the western edge of the marsh to provide access for vehicles or machinery.

Charcoal and charred plant remains

Methodology

Bulk soil samples were taken to recover charcoal and charred plant remains, as well as small artefacts, especially metal-working debris. The sampling strategy employed was related to the perceived character, interpretational importance and chronological significance of the strata under investigation. Unquestioning sampling of all deposits was avoided so that sampling was restricted to significant contexts. Modern features and post-medieval ditches were generally not sampled. Tree hollows were not sampled unless they were in close proximity to prehistoric features.

Where the context was large enough a bulk sample of c. 20 litres of soil was collected, or where the context was small 100% was sampled. In some cases more deposit was collected than this because the deposit was large or particularly important or both. Both flotation tanks and bucket sieving were used to process the bulk samples. The volume of the sample was measured and any large stones were removed. The deposits were first placed in the flotation tank where material floating over the sluice was caught in a 0.3mm mesh and the heavy fraction was held a 1mm mesh. The residue was then sieved through a 1cm sieve and this large fraction was saved. Stones were removed from this fraction and discarded unless they were burnt, in which case a sample of the burnt stones was retained for analysis. The flotation did not separate all the charred remains from the residue so the 1mm residue was bucket floated. This involved agitating the material in water so that the charred remains were suspended long enough to pour off through a 0.3mm mesh sieve. This combined method proved to be effective at separating the charred remains from the heavy fraction. The flot was dried and both the 1cm and 1mm residue fractions were dried and retained for sorting. The residue was sorted to check for small artefacts, with samples from selected areas being tested for the presence of magnetic metal-working debris using a magnet. All samples were visually checked for non-magnetic metal or glass working debris. Once all artefacts and any other useful evidence were removed from the residues they were discarded.

The flots, composed largely of charcoal and charred plant remains, were catalogued and assessed by Pam Grinter, working for Birmingham Archaeo-Environmental (volume 3, part XIX.1). A full charcoal assessment and further work on both charcoal and charred plant remains was carried out by Rosalind McKenna.

Charcoal

Rosalind McKenna

The charcoal assemblages are generally similar from different periods, with oak usually dominating the assemblages, but a small range of other species also utilized, including hazel, willow/poplar, rosaceae, ash, alder and buckthorn.

Charcoal as a material does impose some limitations. It represents only a fraction of the material that was burnt, with the majority generally burning down to unidentifiable flecks or ash. Also, wood species differ in their resistance to burning. Soft woods such as birch, alder, hazel and willow, burn more easily to ashes than hardwoods such as oak, therefore oak tends to be over represented in the lists of identified species. Smaller wood pieces such as branches and chips also burn more easily than thick logs, and this can affect the identification results. Some woods are difficult to identify in a charred condition, or cannot be distinguished from other very similar wood species, as is the case with alder, birch, willow and poplar, while other species, such as oak and ash, can often be identified even in severely burnt conditions.

The charcoal remains showed the exploitation of several species. Oak has good burning properties and would have made a fire suitable for most purposes (Edlin 1949). Oak is a particularly useful fire fuel, as well as being a commonly used structural/artefactual wood that may have had subsequent use as fuel (Rossen and Olsen 1985). Ash is strong and tough, and makes excellent firewood, producing both heat and flame. It will also burn when green (Grogan *et al* 2007, 30). Hazel is recorded as a good fuel wood and was widely available within oak woodlands, particularly on the fringes of cleared areas (Grogan *et al* 2007, 30). Alder was also represented in the samples. This wood is a poor fuel, as it burns quickly and gives off little heat, but was used for charcoal production. This may indicate some small scale charcoal production, but given that it was only recorded in small numbers, it may merely represent a selection of available firewood. Willow/Poplar are species that are ideal to use for kindling. They are anatomically less dense than for example, oak and ash and burn quickly at relatively high temperatures (Gale and Cutler 2000, 34, 236, Grogan *et al* 2007, 29-31). This property makes them good to use as kindling, as the high temperatures produced would encourage the oak to ignite and start to burn. Common buckthorn is a species typical of scrubland (Stace 1997). The Rosaceae (rose) family are deciduous and include herbs, shrubs

and trees. Several economically important products come from the family including many edible fruits such as apples, pears, plums, cherries, and are also trees and shrubs such as rowans and hawthorns. At Parc Cybi charcoal from these species were particularly found in floors in the Iron Age settlement, presumably having been used for firewood and then been trampled into the floor. The presence of this charcoal in the Iron Age suggests that these species were more available at this period.

Dryland wood species indicates the presence of an oak-ash woodland close to the site. This would have consisted of oak, which would be the dominant large tree species (Gale and Cutler 2000, 120, 205). On the marginal areas of oak woodlands or in clearings hazel thrives. There is also some evidence of a damp area, or carr fen woodland, which would have consisted of alder, willow and poplar (Stuijts 2005, 143; Gale and Cutler 2000). Communities in the past probably collected firewood, especially kindling, from the closest possible available wooded area, giving some indication of species growing close to the site.

When the woods used over the different periods at Parc Cybi are compared, we see the continuity in the species selected. Oak dominated all of the periods associated with the various features. Ash was recorded for the first time in samples from Iron Age features, which may indicate an introduction of the species into the local environment, or it may have been more readily available or was consciously selected.

The current charcoal dataset for Neolithic Wales is limited. Despite these limitations, it is possible to extract some useful information concerning woodland composition and exploitation. A wide range of wood species were exploited throughout the Neolithic and the main taxa recorded are hazel, oak and Maloideae. These three taxa are also commonly recorded in Mesolithic sites in Wales in addition to Neolithic sites in England (Murphy 2001; Smith 2002; Huntley 2010) and in north-western Europe (Jansen and Nelle 2014; Salavert *et al* 2014). This can also be seen from the remains from this period at Parc Cybi, oak dominates the assemblages with significant amounts of hazel and smaller amounts of willow/poplar and rosaceae.

In the Bronze Age, charcoal remains are often abundant in burnt mounds due to the large quantities of wood for fuel necessary to heating stones to heat the water (Flook and Kenney 2008; Rackham and Challinor 2014). The large numbers of burnt mounds in West Wales suggests that the sourcing firewood required substantial investment and this could have had a considerable impact on local woodlands (Rackham and Challinor 2014: 150). The analysis of charcoal from burnt mounds provides the opportunity to examine the local environmental context of these sites. Taking a broad chronological view (c.2500 – 800 cal BC) there are some clear patterns in the wood species exploited in burnt mounds with oak, hazel and alder being the most common species present, with generally smaller quantities of other species such as blackthorn, ash, Maloideae-type, birch and holly (Caseldine and Murphy 1989; Thompson 1993; Denne 2002; Akeret 2007; Schmidl *et al* 2008; Carruthers 2009; Maynard 2012; Challinor *et al* 2014; Rackham and Challinor 2014). Both oak and hazel would have provided good quality firewood with a high burning temperature and both these species are also common in domestic assemblages (Grogan *et al* 2007). In comparison, alder is a poor quality firewood unless well-seasoned or converted to charcoal (Gale and Cutler 2000: 34). Alder grows in damp, wet soils (Gale and Cutler 2000: 34) and considering that many burnt mounds are situated close to water sources it is likely to have been common in the vicinity of the sites. The charcoal species present do not give an indication of highly selective wood exploitation, rather wood species present in the local environments appear to have been exploited.

Iron Age sites that have been examined for charcoal generally have assemblages that are too small and of poor quality to allow even basic discussions concerning the use of woodland resources. Caseldine (1990) states that the taxa most frequently recorded from various sites within this period are oak, hazel and ash. The remains from the various different features and phases at Parc Cybi show a consistent utilisation and dominance of oak within the assemblages, with hazel, willow/poplar, ash and rosaceae also present in the surrounding area and utilised.

Oak dominates the remains from the Roman period in Wales, with ash, hazel, willow, possibly poplar, hawthorn, cherry and birch also recorded (Caseldine 1990). The charcoal remains from Parc Cybi reflect this and oak dominates, with willow/poplar, hazel and rosaceae also utilised.

The Early Medieval phase of activity at Parc Cybi was represented by corn dryers, and the charcoal from these does differ from the earlier phases. Whilst oak is still present in high number in the assemblages, fewer are dominated by this species. Buckthorn and willow/poplar are present in higher numbers, alongside hazel, alder, ash and rosaceae. This also shows a change in the available woods during this period, as is the general consensus that the woodland and species within them expanded during the post Roman period, which can be seen in the evidence

from other sites dating to this period.

Charred plant remains

Rosalind McKenna

Thirty seven samples produced identifiable suites of plant macrofossil remains with enough material in to warrant a full analysis. A large number of seeds were present in the samples, and although the majority of the cereals were recorded as indeterminate cereal (based on their morphological characteristics and shape), where identification was possible barley dominated, with emmer, wheat, spelt and oat grains also present. Hazel nut shell fragments were also the dominant / only remains within a number of the samples.

The only significant wild species present was hazel in the form of hazel nut shell fragments, present in significant numbers throughout the Neolithic period. These may represent the exploitation of hazel nuts as a food source throughout the site during this time. Whilst it is possible these were gathered foods, they may also have entered the assemblages as the weeds of cultivation / settlement / fuel debris. Hazel-nuts are valuable nutritionally, as well as being readily available. The hazelnut shell recovered may be indicative of a food source being consumed, perhaps as a snack and their husks being added to the fires as a method of waste disposal. However, the hazelnut shell fragments show no marks typically associated with processed shells. Together with the hazel charcoal also recorded from the samples, it may indicate that they are merely representative of hazel wood being burnt for fuel.

After this initial utilisation of wild taxa, i.e. hazel nuts, there was a steady use and increase in the cultivation of cereals at the site or in its wider environs. Barley dominated throughout the various phases with wheats and oats also present alongside chaff fragments and weeds associated with cultivation. Cereal grains were present in the form of indeterminate cereal grains from the Neolithic period onwards. The shift can be seen from wheat and barley in the Bronze Age, to emmer wheat in the Iron Age, to a mixture of barley, emmer, wheat and oats in the Roman period to barley and oats dominating during the Early Medieval period. The cereals in the samples may grow in a range of soils although oats grow best on heavier soils and barley prefers lighter well drained soils. All the cereals in the samples may be sown in both autumn and spring although wheat is usually winter sown and oat spring sown as it is less resistant to frost.

Another indicator of cultivation is the proportion of remains of arable weeds that were found in most of the samples. Of the plant taxa recorded in the samples, goosefoot/orache, dock, stinking chamomile, and bedstraws all seem likely to have arrived as crop weeds, and the remains of various grass species such as rye grass and brome, identified only to genus, may also fall in this group. All these species would almost certainly have been brought to the site together with harvested cereals.

Where the remains that represented crop processing waste, there were amounts of cereal chaff and weed seeds which would have been incorporated with the grain during the harvesting process. Due to the proportion of crop processing waste in comparison with the grains, this represents the fine sieve by-product from final processing prior to use rather than debris associated with threshing and winnowing.

The use of cereal processing waste as fuel is well attested (Hillman 1981; 1984) and disposal of spent fuel either into features such as pits or ditches/gullies or directly dumped onto the site seems a likely explanation for the arrival of this material on site. Those macrofossils present within corn drier / hearth features are likely to represent the waste associated with parching / malting, or the remains of fuel waste which incorporated cereal processing debris alongside charcoal. The presence of hazel nut shell fragments, especially in pit features from Area I shows the utilisation of the resource probably as a snack food and its resulting waste. The clear remains of roofing / thatch material (extremely chaff rich / straw dominant) were present within samples from structure 80248 in Area K7, showing the collapse of a roof at some point.

As the majority of the plant remains were found together with charcoal remains, it may suggest that waste or spilt grain and pulses were put on the fire with other rubbish and a small fraction became charred without burning up, and joined the domestic ash on the rubbish heap.

Plant macrofossils over time

When the plant macrofossils from the different periods at Parc Cybi are studied, it is clear to see a development in the exploitation of species. During the Neolithic period hazel nut shell fragments are the most frequently recorded remain, along with very small quantities of indeterminate cereal grains and chaff fragments. During the Bronze

Age, evidence for the cultivation of cereals is represented by the presence of indeterminate cereal grains, wheat and barley grains, chaff fragments and weed seeds typical of cultivation. The remains from the Iron Age samples are dominated by the presence of chaff fragments and few grains of indeterminate cereal, wheat, barley and oat. The samples are from features that represent roof collapse and layers which may reflect flooring debris, rather than pits as in other periods, so direct comparison to utilisation of species is difficult.

Samples dating to the Roman period show the continuing utilisation of cereal grains, including oat, barley, wheat and emmer alongside chaff and weeds typically associated with cultivation. Samples dating to the Early Medieval period produced the most abundant suites of plant macrofossils, and were extremely grain rich. As these features were associated with corn dryers, however, that is to be expected. Barley dominated the samples, and the presence of detached embryos and sprouted grains may be indicative of brewing. Oat and wheat along with chaff fragments and weeds seeds typical of cultivation were also recorded.

Based on data gathered from several sites, it is probable that cereals were introduced into Wales in around 3700 cal BC (Treasure 2016). Emmer was the most commonly identified species, followed by barley and naked wheat. In terms of quantity, most sites from the Welsh Neolithic have produced extremely small assemblages of cereal grains consisting of between 1-25 grains, or even less. Although it is argued that cereal cultivation and wild plant exploitation were both significant dietary components in the Neolithic (e.g. Jones and Rowley-Conwy 2007; Rowley-Conwy 2004; Rowley-Conwy and Legge 2015), there appears little evidence to suggest that cereals formed the mainstay of the economy for Neolithic Wales (Treasure 2016).

Cereal grains are present in moderate quantities in Early Neolithic pits clusters at Carrog, north-west Wales (Caseldine *et al.* 2014), Cwm Meudwy B, south-west Wales (Caseldine and Griffiths 2006) and at Borrass Quarry, north-east Wales (ASUD 2010, 2013), although all of these assemblages also contained large assemblages of hazelnut shells. Hazelnuts are particularly frequent during the whole Neolithic period, and occur in greater quantities than cereal grains. On the basis of the consistent evidence for hazelnuts in Neolithic Wales (and elsewhere in Britain) it is tempting to suggest that a degree of deliberate human manipulation was involved in their growth.

Taphonomic factors may have led to the significant under-representation of cereals in Neolithic sites relative to hazelnuts. Firstly, cereals typically occur in very low densities in Neolithic sites and it has been suggested that cereals will be under-represented where only limited sampling and small sample sizes are used to recover archaeobotanical evidence (Legge *et al.* 1998, 90-91; Rowley-Conwy 2000, 43; Jones 2000, 82; Jones and Legge 2008, 476). Secondly, cereals and hazelnut shells have differing probabilities of coming into contact with fire and preserving. Hazelnut shell is a waste-product which may have been deliberately discarded onto fires or used as a source of kindling, whereas cereal grains are intended for consumption and are unlikely to become charred unless accidentally discarded onto fires or destroyed in a conflagration of a stored crop (Legge 1989; Jones 2000; Jones and Rowley-Conwy 2007; Jones and Legge 2008).

The crop record in Britain during the Bronze Age period is characterised by the gradual replacement of emmer wheat to spelt wheat (Jones, M 1981), although the change is far from uniform (Campbell and Straker 2003) based on geographical location. In Treasure's recent synthesis of prehistoric plant remains, early Bronze Age evidence for cereals is sparse in Wales, with small quantities of cereal remains, primarily barley, and hazelnut shells present. A similar pattern of low densities of cereal grains is evident for sites in England (e.g. Hinton 2004/05, 2006; Carruthers 2006; Hall and Huntley 2007; Smith 2010), with some exceptions (e.g. Ratcliffe and Straker 1996; Carruthers 1990; Pelling and Campbell 2013).

Cereal remains are present at a number of sites including middle-late Bronze Age roundhouses which have produced small assemblages of cereal grains, primarily barley (Caseldine 2001; Caseldine and Griffiths 2004). A roundhouse at Glanfeinon, central Wales, produced a large assemblage of cereal grains (Britnell *et al.* 1997), comprising of a cache of >5000 naked barley grains and smaller quantities of hulled barley, barley and emmer grains and chaff in addition to a possible flax seed and weed seeds (Britnell *et al.* 1997).

There is currently little evidence for a widespread intensification of agriculture across the Early-Middle Bronze Age transition in Wales as the dataset for Wales is too limited to analyse in detail the nature of agricultural practices. At Parc Cybi a sample from a Bronze Age pit, possibly associated with a roundhouse, was dominated by indeterminate cereal grains. The composition of the assemblage differs from others in Wales; where identification was possible, wheat dominated with smaller amounts of barley grains also present.

The Iron Age in Britain is characterised by an increase in the number of possible crops available, i.e. the addition of pulses, oat and rye. For most Iron Age sites only very limited sampling for archaeobotanical evidence has been undertaken, although in some instances this can be related to an absence of large scale modern excavations on Iron Age sites in Wales. Recent excavations have been undertaken at a small number of Iron Age sites may provide valuable contributions to the current archaeobotanical datasets, this includes projects at Llanmaes, south-east Wales (Caseldine and Griffiths 2005, 2006b, 2010; Lodwick and Gwilt 2010), Penycloddiau Hillfort, north-east Wales (Mason and Pope 2012, 2013), Moel y Gaer, north-east Wales (Lock and Pouncett 2013) and Caerau Hillfort, south-east Wales (Wessex Archaeology 2013; Davis and Sharples 2013, 2014).

Arable agriculture appears to be focused purely on cereals and there is currently no evidence for legumes in Wales during this period, although this could reflect a preservation bias (Treasure 2016). For the Earlier Iron Age in Wales, spelt wheat, emmer wheat and barley are the most common crops, although it difficult to assess the relative importance of these different crops due to the paucity of evidence (e.g. Caseldine 2001a; Caseldine and Griffiths 2011a, b; Carruthers 2011; Caseldine *et al.* 2014). Emmer wheat appears to have been an important crop in some areas at least and there appears to be a shift towards spelt wheat with free-threshing wheat also becoming increasingly important.

An Iron Age pit on Glan Morfa Farm, Abererch, produced a dense concentration of cereal grains (113 grains/litre) and some chaff, with emmer wheat dominant and other cereals included spelt wheat, barley (naked and hulled) and two free-threshing wheat grains (Challinor *et al.* 2014). Later Iron Age to Romano-British settlements have produced varying evidence for cereals, although the poor dating evidence prevents detailed assessments of the evidence. Cereals were sparse at Parc Bryn Cegin, Llandygai, including emmer wheat, spelt wheat, free-threshing wheat, barley and oats (Schmidl *et al.* 2008) and at Cefn Cwmwd (Rhostrehwfa) and Gwinlan Glan Morfa (Abererch) cereals were sparse (Akeret 2007; Ciaraldi 2012). In comparison, Cefn Du (Gaerwen) produced abundant cereal remains, dominated by spelt wheat, with considerable evidence for free threshing wheat, although only three samples were analysed and these can only be tentatively assigned to this period (Ciaraldi 2012). Spelt wheat is also reported to be dominant at Cefn Graenog (Monk 1998).

The Iron Age samples from Parc Cybi richest in charred plant remains were from deposits interpreted as floors or the remains of a collapsed roof, so comparisons are difficult with features associated with cereal processing or storage on other sites. The chaff rich remains at Parc Cybi show the dominance of wheat, as well as emmer and spelt wheat, with barley and oat also present. Whilst it confirms the importance of wheat and emmer as an important crop, it does not confirm the shift towards spelt wheat.

The only sample from Parc Cybi with significant charred plant remains of Roman date came from within structure 80527 in Area K9. This sample was dominated by oat with significant quantities of barley, a combination found elsewhere in the area at this date, including Tŷ Mawr, South Stack (Williams 1986), but usually the barley is the dominant grain. It is possible that oats and barley were sown together as a dredge or maslin, a combined crop that could be used as fodder, for brewing, or for human consumption.

In the Medieval period there is a shift in cereal use away from spelt, barley and emmer towards bread wheat, rivet wheat, barley, rye and oats (van der Veen 2013). These grains are all free threshing cereals. These are processed differently than the traditional hulled cereals, and often this is done away from the settlement. This means that the by-product of the harvest (weeds and chaff) are less frequently found within Medieval settlements.

Oats dominate the record at medieval sites in England, often forming the bulk of deposits or present as large deposits in association with barley, for example at late Saxon sites in Oxford (Robinson 2000; Pelling 2006), and similarly at sites in Ipswich (Murphy 1987; 1991). The preservation of oats in large quantities frequently appears to be a product of chance. An 11th century AD deposit of charred oats from Foundation Street in Ipswich (Murphy 1991) was found with a horse-shoe and spur suggesting that the deposit represented horse fodder which had been burnt by chance. As a crop oats were undoubtedly important in the late Saxon and medieval period, as supported by the historical evidence but their under-representation in relation to wheat and barley particularly and also rye is likely to be related to their common usage as a fodder crop and, therefore the reduced likelihood of them coming into contact with fire as a result of roasting prior to milling, or use in ovens.

Oats appear to be particularly prevalent in assemblages dating to the early medieval period onwards in northern England, Scotland and Wales (Greig 1991; Huntley and Stallibrass 1995; Carruthers 2010), which is probably due

to it being particularly well-suited to the wetter conditions and the shorter growing season of these areas (Moffett 2006).

Comparisons with other sites in Wales suggest that it was fairly typical for Medieval rural and urban sites to be consuming predominantly oats, which completely differs from the results of this investigation. Recent work at Llanbeblig Road, Caernarfon, Gwynedd (McKenna 2013) shows a dominance of oats with small amounts of barley and wheat also present. Work at Parc Bryn Cegin, Llandygai (Kenney 2008) also produced samples dominated by oats with barley, naked wheat and rye also present. Dark Age samples from Capel Maelog (Caseldine, 1990, p.102) and in a 12th century sample from Loughor Castle, West Glamorgan (Carruthers, 1994), both common cultivated oat (*A. sativa*) and bristle oat (*A. strigosa*) were present. A similar grain assemblage, containing oat, rye and bread wheat, was recovered from another early medieval site at Rhuddlan, North Wales (Williams 1985). The charred seeds of weeds of cultivated ground were also present, and had presumably been harvested with the crop. Other sites, such as Tŷ Mawr, were dominated by emmer and spelt wheat (Caseldine 1990) which also differs from the dominance of oat in samples dating to the Medieval period. Remains from medieval corn dryers at Collfryn, Llansantffraid Deuddr, Powys (Jones and Milles 1984) were dominated by oats, and also quantities of seeds from common weeds of cereal fields, which must have been harvested together with the crop. These included brome (*Bromus*), amongst other species apparently indicating fields on acid and sandy soils.

The compositions of the samples from Parc Cybi do not conform to this hypothesis. Bread wheat and rivet wheat are absent from the samples, however barley dominates with significant proportions of oats also recorded. This is similar to records at Bayvill Park, Pembrokeshire (Parker Pearson *et al* 2018). The corn dryer was dominated by hulled barley, as well as a relatively significant proportion of oat grain. A small amount of spelt wheat grains were also present, although no free threshing grains were positively identified. Weed / wild taxa typically associated with cultivated and/or disturbed ground were also present. Charred plant remains from corn-dryer contexts excavated at the early medieval site of South Hook (Pembs.) indicated that hulled barley, common oats, bristle oats and possibly dredge were being dried at different times and in different ovens (Carruthers 2010). A lack of chaff and low proportions of weed seeds indicated that the charred cereal grain is representative of processed crops that were being dried prior to milling or storage. Charred plant remains from early medieval deposits at the cemetery sites of West Angle Bay (Caseldine and Griffiths 2011c) and Brownslade (Carruthers 2011) also consisted largely of hulled barley and oat.

Animal Bone

See volume 3, part XV for full report

Animal bones were recovered from 215 contexts across the site including Middle Neolithic, Bronze Age, Iron Age, Roman period, and post-medieval contexts. The animal bone was mostly very fragmentary and poorly preserved. The unburnt assemblage mainly consists of teeth and tooth fragments, while the burnt bone is generally too small to be identifiable. Some of the smaller fragments could be assigned to approximate categories, ‘cattle-sized’ and sheep-sized’ mammal bone. For the larger fragments of burnt and unburnt bone identification up to species-level was possible, with comparatively small fragment counts of cattle *Bos taurus*, sheep/goat *Ovis aries*/*Capra hircus*, pig *Sus scrofa* and horse *Equus caballus*. Only a single fragment of unidentifiable bird long bone was recovered from the early floor layer in roundhouse B.

The very poor preservation state and preferential survival of robust and resistant skeletal elements means that interpretation of the recovery of species, carcase-part, age and modification is virtually impossible beyond a basic establishment of the presence of cattle, horse, sheep/goat and pig. The predominance of adult animals is also likely to reflect the very aggressive local soil chemistry in which juvenile bones would be highly unlikely to be preserved.

Most of the identifiable bone came from the roundhouse settlement in Area B2, where some of the lower layers seemed to have provided better preservation conditions than were general on the site (figure 142). The early ditch (91445/92516) produced a significant number of tooth fragments. Many of these were unidentifiable but several were from cattle, one from sheep or goat and 4 fragments of pig tooth; 3 of the latter being from sub-adults or juveniles. The adjacent early ditch (91783) also produced numerous fragments of cattle-sized teeth. It is probable that these teeth were originally accompanied by jaw bones and possibly other bones, but only the teeth have survived. Unfortunately they had not survived well enough to provide sufficient collagen for dating.

Buried soil layers under the settlement and in some cases sealed under the platform deposits also produced animal remains, again mainly teeth, some from cattle or cattle-sized and some sheep or goat. Some of these lowest layers (e.g. 92539 and 92578) also produced horse teeth. A stakehole near the hearth in roundhouse A (92017) produced a pig's mandible and teeth as well as sheep/goat teeth. This feature was found after the stone platform under the roundhouse had been removed and it was not clear whether the stakehole had cut the platform and was not visible within the stones or it genuinely predated the platform. The mandible may indicate the latter, though it is more likely that being under the stone layer caused its preservation and this would have occurred whether it cut that layer or not. It seems likely that most of the animal remains from directly under the roundhouses did originate from the use of the houses.

Although no conclusions can be drawn from the absence of a species in the bone assemblage even these poorly preserved remains can show which species were present in the settlement. Identifiable remains were more numerous and wide spread in the first phase of the settlement than in the higher layers, and this must be entirely due to differential preservation. However, cattle, sheep/goat and horse are represented in both earlier and later phases. Pig is represented in the later phase by a single tooth, but was present in the first roundhouse phase and in the pre-roundhouse ditches.

All species are fairly well distributed around the settlement, though the number of horse teeth in structure 94019 is notable. However, although teeth from both the upper and lower jaws were present, this could be explained by a single horse skull. Fragments of horse teeth were found in various contexts across the settlement and even in layers below. Horse teeth are large and likely to survive well but their presence in many different contexts suggests that they were a significant part of the fauna of the settlement.

A single bone from the wing of a bird recovered from a floor deposit in roundhouse B acts as a reminder of all the other species that may well have been present in the settlement, either living or dead, but from which no remains survive in the aggressive soil chemistry.

A single context from the whole site produced a significant quantity of bone. This was context 70594, the rubble around the small Z-shaped structure (03042) on top of the knoll next to Trefignath Farm (figure 123). The sample comprises 41 fragments with a total weight of 1.25kg. Most of the fragments are from cattle, with pig represented by four skull and maxilla fragments with some teeth in place. The cattle are represented by both cranial and post-cranial material and all appear to be derived from relatively large individuals. Five fragments of cattle bone display evidence for sawing, and the use of the saw in butchery would suggest a modern origin for this material. The artefacts and bones in this rubble could have been dumped there after the collapse of the building, though the top of a steep knoll seems an odd place to dispose of domestic rubbish. It is speculated from the presence of butchered bone that the small structure might have been kennels for dogs, giving them a good view to act as guards. However, no knawing was noted on the bones, though their fragmentary and fairly poorly preserved nature may have obscured such evidence.

Human bone

See volume 3, part XIV for full report

Human bone was recovered from the long cists in the cemetery in Area K7 but it was very fragmented and degraded. Human bone was recovered from 6 graves; graves A, B, D, F, G and J. Surviving fragments are predominantly from the denser skeletal elements as bone density is a key factor in maintaining preservation in hostile environments. Much of the material was too fragmentary to contain significant information but the best preserved skeleton (from grave A) could be identified as probably a male between 16.5 to 19.5 years old at death. He had enamel hypoplasia indicating three episodes of physiological stress, caused by illness or nutritional deprivation, during late infancy (c. 18 – 30 months), at around 6 – 8 years and again around 11 – 13 years. Another individual, from grave D, was possibly a female over 30 years in age. A tooth from grave B indicates an individual with a possible age range at death of 16 – 24 years, and a skull fragment suggests that the body in grave G was of an adult, or near adult, possibly male. Grave J contained the crown of a single tooth from an immature individual with an estimated age c. 5 – 7 years, and grave F contained remains of four crowns of teeth from an individual of the same age.

Teeth from graves F and J, recovered by wet sieving and held at Gwynedd Archaeological Trust, were sent for radiocarbon dating, but proved to have insufficient collagen for dating. It was intended to send replacement

samples from some of the more robust material in the main collection, which was held at University of Central Lancashire, but this collection could not be located. It was proposed to carry out dietary stable isotope analysis, which would have been done as part of the dating process. With the failure of the dates this element also could not be completed. The assemblage has also not been included in the archive of material held by Oriel Ynys Môn, but the collection may be rediscovered in future and reunited with the rest of the archive.

Soil micromorphology

See volume 3, part XXI for full report

Dr Helen Lewis visited the site during excavation to assess for geoarchaeological potential. Soil micromorphology samples were taken mainly from deposits in the roundhouse settlement including hearths, floor layers and possible buried soil layers. From these samples thin sections were made to produce slides for analysis.

Samples were taken from a series of gravelly and loamy floor layers in roundhouse A, loamy floor layers in roundhouse B, alternating gravel and sandy loam floor layers in roundhouse C, and hearth rake-out deposits and flooring in roundhouse E. One monolith was taken through the hearth deposits in structure F and into the buried soil below. The series of silt deposits in the eastern part of the roundhouse settlement were sampled. These underlay most of the archaeology and may be alluvial or buried soil layers, but some built-up against the foundations of the roundhouses and their character is important in understanding the environment immediately before and during the settlement occupation, particularly flooding events. A sample was also taken from the buried soil seen in section in Area K2.

The floor deposits from within the roundhouses included gravel, clay and earth layers. A typical method of creating a house floor was identified; a layer of gravel was laid down with an earthen floor directly on top; the gravel forming a make-up layer for the earthen floor rather than being a floor surface itself. In roundhouse B the upper part of floor layer 90882 had a line of gravel at the base of the deposit, which is very suggestive of the deliberate laying of a gravel surface. Generally the earthen floor surface had been truncated before the deposition of a new gravel layer and new earthen floor layer, but in roundhouse B and roundhouse E some of the surface levels of the floors were preserved. Roundhouse B had three distinct floor layers each with gravel covered by earthen flooring, and in roundhouse E the floor near the hearth was covered with trampled charcoal-rich material, a sequence repeated at least twice. Roundhouse A also had three floor layers each with gravel and an earthen floor surface on top, though the upper floor had lost its earthen surface. This indicates that floors in the houses were repeatedly replaced, suggesting some longevity to the houses. In roundhouse C one of the floor layers (91155) was made of clay-rich sand brought in from an alluvial source rather than gravel. All of the floors would be consistent with use as domestic space.

Under roundhouse A but over the stone platform was a charcoal-rich layer recorded as various contexts but mainly 90576. Where this was recorded as 90947 it was sampled for micromorphological analysis. This was compacted and so resembled an earthen floor but also had characteristics of a disturbed soil horizon, in particular, the evidence for earthworm sorting suggests that there was a substantial phase when this was a soil horizon proper. It is suggested that this was most likely an *in situ* soil layer that grew here for a short time, and was then disturbed, possibly by use as a floor, introducing charcoal into it. This implies a considerable period of time between the construction of the stone platform and the building of roundhouse A.

The buried soil horizons studied appear to mainly be A horizons (often probably lower A), with only one possible upper B horizon identified. They often show strong disturbance typical of agricultural soils. In some cases there is also evidence of earthworm sorting, which suggests that before the roundhouse settlement was constructed the underlying area was probably untilled for some time (possibly a stable grassland or scrub) after an earlier phase of tilling. The level of disturbance to the soils suggests the earlier tilling phase may have been from at least the earlier Iron Age, and possibly back through into the Neolithic.

Analysis of a suggested flooding deposit to the east of the roundhouses (91515) shows that while this layer is relatively clay-rich, its other features are suggestive of an agricultural or otherwise strongly disturbed soil (e.g. a lower A horizon). However, the deposit did contain occasional diatoms, which could reflect an alluvial origin, but they were mixed into a soil horizon. The generally clay-rich nature of both of this layer could reflect an alluvial parent material, but it is not itself an alluvial deposit. This layer overlay deposit 91231, which showed classic soil features, including earthworm sorting of gravels and sands to base of layer.

Potential quarrying

See volume 3, part XXII for report

Various features on site use large slabs of local schist, which were presumably quarried close to where they were used. Some possible sources on site were inspected and examined for quarrying by Dr Margaret Wood and Dr David Jenkins. They inspected outcrops at the northern and southern ends of the site, which could have been used to provide some for the Bronze Age cists and for the Neolithic chambered tomb. While they concluded that these monuments used the local rock, identifying certain quarrying scars proved difficult. The outcrop at the north end of the site was largely overgrown with vegetation and some quarrying might have been obscured. The southern outcrop was stripped of soil and partially cleaned during the excavation, so this could be inspected in detail.

The rock outcrops are *roche moutonnées*, eroded by the passage of ice giving a smooth surface on the rock face where the ice travels over it and a plucked uneven jagged surface on the leeward end to the outcrop. The southern outcrop was not well suited to quarrying, as the rock would have produced small irregular slabs. Inspection of the outcrop for possible quarried sites revealed several small scarp faces, but these were mostly south-facing and likely to represent the natural product of plucking by ice, and no convincing evidence for prehistoric quarrying was found.

It seems that not all the outcrops were suitable for producing large and useful slabs and quarrying might have been limited to specific locations not yet identified.

DATING

See volume 3, parts XXIII and XXIV for full reports and Bayesian models

Archaeomagnetic Dating

Archaeomagnetic dating was attempted on three hearths within the main roundhouse settlement. Sixty samples were taken from three hearths in roundhouse B (context 91972), roundhouse E (context 92141) and an area to the east of the roundhouses (context 91579). Only eighteen samples from roundhouse E recorded a consistent, stable magnetisation, but the strength of the magnetisation was extremely weak preventing further analysis. The samples from roundhouse B and the eastern area were also weakly magnetised but displayed much more scatter in the recorded magnetic direction. These results may indicate that the material has not been fired *in situ* to a sufficient temperature or that the mineralogy of the material does not retain the magnetic signal. Given the archaeological evidence, the most likely explanation is that the material does not contain appropriate magnetic minerals, making the features undateable by archaeomagnetic dating.

This method of dating therefore proved unsuitable for the site and no usable results were obtained. The archaeomagnetic dating of the boulder hearth in Area K9 was considered but finds date this to the Roman period. There is a loop of repeated values in the geomagnetic field in the Roman period giving very imprecise dating (Dr C Batt, Senior lecturer in Archaeological Sciences, University of Bradford). It was therefore decided that finds and radiocarbon dates would be more appropriate dating tools in this case.

Radiocarbon Dating

The radiocarbon dating strategy was defined in the project design. It required a careful consideration of the samples chosen to ensure that they are directly relevant to the specific archaeological questions to be answered and a phased approach used in combination with Bayesian modelling to identify the optimum number of dates required to answer specific questions. A range of questions were considered in the project design, some being rejected as being unsuitable for answering by radiocarbon dating. The radiocarbon dating programme as carried out closely followed the remaining questions, though some alterations were required in detail due to the scarcity of suitable dating material in some cases.

The programme was carried out in stages; the dates were divided into a first round, including all the sites to be dated and a second round where further dates were obtained on three sites. Within the first round of dates necessary alterations to the project design were informed by obtaining an initially 37 dates.

All dates were on short-lived species or materials. Where possible and appropriate these were selected from contexts with stratigraphic relationships that could be used to constrain the resulting Bayesian model; this was particularly relevant to the main roundhouse settlement in Area B2. All the samples were submitted to the Scottish

Universities Environmental Research Centre (SUERC), except for two carried out during fieldwork in 2008 that were submitted to the radiocarbon laboratory at Kiel, Germany. For methodology and details of the results and Bayesian analysis see Hamilton, volume 3, part XXIV.

Dating Questions

The initial dating questions covered by the project design are as below:-

Q1 - Area H: The Early Neolithic building (PRN 31570)

The primary aim was to discover the start and end dates for the use of the building and its duration of use. This was to be done in two rounds with the first round dates informing the total number of dates obtained.

Q2 - Area H: Feature with cannel-coal bead near Early Neolithic building

The objective of dating this feature was to ascertain whether this is a rare Neolithic example of a jet-like bead.

Q3 - Area J: prehistoric pits and postholes (PRNs 31576, 31577, 31578, 31579, 31580, 31581, 74831 and 74832)

In this area was an extensive scatter of pits and postholes, some with Late Neolithic pottery but many of a probable later date. The aim was to date this activity and additionally to provide dates on the pottery to contribute to the chronology of Neolithic pottery types. Unfortunately many of the features proved to lack suitable dating material so this activity in this area could not be fully dated.

Q4 – Area I: pit groups (PRNs 31572 and 31598)

This area included two main pit groups, one of which contained Neolithic material and the date of the other was unknown. The objective was to securely date the use of the Neolithic pit group and obtain a general date for the undated group.

Q5 - Area E: Neolithic activity (PRN 18406)

The hollow in Area E contained finds indicating mainly an Early Neolithic date for activity but also some Beaker sherds. The dates were to obtain an indication of the duration of activity in this area.

Q6 - Area E: large burnt mound (PRN 31582)

The aim was to date the duration of use of the mound.

Q7 - Area E: small burnt mound (PRN 31583)

The aim was to provide an indicative date for the use of the mound.

Q8 - Area B1: pit group 25046 (PRN 31592)

The aim was to provide an indicative date for the use of the pit group.

Q9 - Area L3: structure 22171 (PRN 31593)

The aim was to provide an indicative date for the use of the structure

Q10 - Area B3: ditches (PRN 31594)

To the south-east of the roundhouse settlement within Area B3 a series of ditches defined several enclosures. Given the lack of taphonomically secure samples from the ditch fills it was proposed that no samples be submitted for radiocarbon analysis. This question was therefore rejected in the project design and no radiocarbon dates were obtained.

Q11 - Area D3: hearth and pit group (PRN 31574)

A pit group with a hearth probably represented the location of a small structure. The pits contained Grooved Ware pottery. The aim was not only to date the use of the structure but to date the pottery to contribute to on-going work to define the chronology of later Neolithic pottery styles.

Q12 - Area K9: pit group (PRN 31573)

A pit group containing Middle Neolithic Mortlake style Peterborough Ware pottery. The aim was to date the pottery to contribute to on-going work to define the chronology of later Neolithic pottery styles.

Q13 - Area K9: Romano-British square stone building (PRN 31596, structure 80526)

A small square stone building with a large central pit. Suitable dating material was scarce and some Roman pottery provided dating evidence so this question was rejected in the project design and no dates were obtained.

Q14 - Area K9: industrial feature (PRN 31596, structure 80527)

A clay-walled structure contained intensive industrial activity dated to the late 3rd to 4th centuries AD by pottery. As this was already well dated by the finds and radiocarbon dates were unlikely to improve that date this question was rejected in the project design and no dates were obtained.

Q15 – Area K9: post-industrial feature activity (PRN 31596, structure 80527)

Following the end of industrial activity (see Q14 above) a rough stone surface was laid in the structure and this later activity has been interpreted as reuse of the structure as a livestock shelter. As the deposits relating to this activity were very disturbed and adjacent features could not be confidently assigned to this phase this question was rejected and no dates were obtained.

Q16 – Area K9: postholes, pits and fire-pits (PRN 31596)

Associate with the structures in questions 13 and 14 were postholes defining storage structures and pits some of which had traces of burning. To test if all these features belonged with the late 3rd to 4th century activity some were dated.

Q17 – Area K9: corn dryers [80924] and [80835] (PRN 76100 and 76101)

Two corn dryers were excavated in Area K9 but apparently stratigraphically later than the structures above. Dating initially aimed to establish if the corn dryers were related to the rest of the activity in this area or not, but they have also contributed to dating Early Medieval activity across the site as represented by corn dryers, see question 20.

Q18 – Area K7: long cist cemetery (PRN 31600)

As some human remains did survive in the long cist cemetery, the aim was to try to date these to contribute to the chronology of these sites, which often do not contain datable material. The chance that the remains would not contain enough collagen for dating was high and the two samples submitted failed due to lack of collagen. Unfortunately no further attempts could be made as the bulk of the assemblage had been misplaced in the University of Central Lancashire and further samples could not be obtained. This question has therefore not been directly answered though results from question 19 for smithing activity later than the cemetery suggest that the cemetery dates to the late Roman period.

Q19 – Area K7: metalworking pit within long cist cemetery (PRN 31600)

The aim of this question was to date smithing activity in the long cist cemetery but it also provided the only successful dates for the cemetery itself.

Q20 – Corn dryers (PRN 31601, 31602, 31603 and 31604)

Four corn dryers were found across the site and these were to be dated to determine the range of periods over which they were used. These were to be considered with the corn dryers in question 17, and as all proved to be of the same Early Medieval date they provided a date for activity in that period.

Q21 – Areas M2 and M4: Bronze Age monuments (PRN 31589, 31590 and 31591)

Monuments dated by style and finds to the Bronze Age were found in the northern part of the site. These included a multiple cist barrow, a ring ditch and a D-shaped ditched enclosure. There was no suitable dating material from the first two monuments but Bronze Age pottery and charred plant materials were recovered from the ditch of the D-shaped enclosure. Dates were to be obtained to confirm the general date of activity in this monument.

Q22 – Areas M2 and M4: Early Neolithic pits (PRN 31571)

A small group of pits and postholes in Area M produced Early Neolithic pottery. It was considered obtaining dates from these but decided that as the activity was dated by the pottery and of relatively minor importance in context of the site as a whole that radiocarbon dates would not be obtained.

Q23 – Area K1: pits near possible Bronze Age roundhouse (PRN 31588)

The postholes of a timber roundhouse were found in Area K1 and this was surrounded by pits and other features. There was no suitable dating material from the roundhouse itself but it was proposed to date two of the pits to determine the date of activity in the area.

Q24 – Area K3: evaluation (PRN 14602)

Consideration was given to dating material from the evaluation of part of Area K not fully investigated in this phase of works. However, this was considered better dealt with when this area was fully investigated in future, so no radiocarbon dates were obtained for this question at this stage.

Q25 – Area K7: clay walled roundhouses (PRN 31595)

Dates were to be obtained to determine the date and duration of use of two clay-walled roundhouses. This was to be done in two rounds with the first round dates informing the total number of dates obtained.

Q26 – Areas B2/F1: stone-walled roundhouses (PRN 14599)

Iron Age roundhouses are generally relatively poorly dated, partly because plateaux in the calibration curve mean that dates can be very broad and many excavators consider it not worthwhile obtaining radiocarbon dates for this period. The aim was to use Bayesian analysis with stratigraphic constraints to improve precisions and obtain meaningful dates for the settlement despite the calibration problems. This was to be done in two rounds with the first round dates informing the total number of dates obtained.

Q27 – Area F1: burnt soil horizon

A burnt patch had been excavated on the buried soil horizon on the edge of the marsh in Area F1. A date had been obtained on this during the excavation phase and a second date was to be obtained to confirm it. The importance of these dates was that the burnt patch was sealed beneath the gravel platform for roundhouse I and the dates proved that this was not a natural deposit. A date was also obtained on birch bark from the edge of the marsh.

Q28 – Area B2: structure F (PRN 14599)

Dates were to be obtained to date structure F, an outlier to the main roundhouse settlement and suggested as possibly being of the Roman period from finds.

Contingency dates (smithing) - The specialist work indicated that smithing activity on the site was of considerable importance and worth dating. An attempt was therefore made to obtain 6 additional dates not included in the project design. However, one feature proved not to have suitable dating material and another appeared to have been contaminated and produced dates only with a background measurement. Two additional dates were successfully obtained from a medieval smithing site in Area E.

Dating results

By Derek Hamilton

See volume 3, part XXIV for figures and details of models

See Appendix III for full table of dates

A total of 118 radiocarbon dates were obtained but three of those produced background results and do not provide meaningful dates.

Question 1 - Area H: The Early Neolithic building (PRN 31570)

There are nine radiocarbon dates available from house structure and hearth features associated with an Early Neolithic building excavated in Area H. The samples all consisted of short-lived charcoal and charred hazelnut shells or cereal grain. A simple Bayesian model was constructed that placed all the dated material into a single phase of activity with no direct stratigraphic relationships being defined between samples. This model has good agreement and estimates the activity associated with the structure began in 3725–3655 *cal BC* (95% probability), and probably in 3710–3665 *cal BC* (68% probability). The activity occurred for 10–110 years (95% probability), and probably for 30–75 years (68% probability). The activity ended in 3655–3610 *cal BC* (95% probability), and probably in 3645–3625 *cal BC* (68% probability).

Question 2 - Area H: Feature with cannel-coal bead near Early Neolithic building

Two radiocarbon dates were obtained on material recovered from posthole [50010] in Area H, which contained a cannel coal bead. The two results (SUERC-81332, -83265) are not statistically consistent and suggest the material is of mixed ages. The more recent result (SUERC-81332) provides the best estimated date for the formation of the deposit of either 3660–3630 *cal BC* (59% probability) or 3580–3530 *cal BC* (36% probability). The distribution is bi-modal, and if the sample dates to the earlier peak then it is most likely temporally associated with the activity in and around the Early Neolithic timber building. However, if it dates to the later peak then it likely post-dates this activity.

Question 3 - Area J: prehistoric pits and postholes (PRNs 31576, 31577, 31578, 31579, 31580, 31581, 74831 and 74832)

In Area J there are six dated pits and postholes that form part of four different feature groups. Each pit has two radiocarbon measurements from within its fills and, with the exception of pit 70529, these are from the same fill.

Two intercutting pits were dated in Group II (PRN 74832), and both pits contained Grooved Ware. The two results (SUERC-81333 and SUERC-83266) from pit [70529] are statistically consistent and so these samples from two different contexts could be the same actual age. Similarly, the two results (SUERC-81337 and SUERC-83267) from context (70502) of pit [70503] are statistically consistent and could be the same age. In both cases, the later date provides the best estimate for the infilling of the pit, and therefore the date of deposition for the Grooved Ware pottery. The best estimate for pit [70529] is SUERC-81333 (2880–2580 cal BC; 95% probability), and for pit [70503] it is SUERC-83267 (2890–2630 cal BC; 95% probability).

There were two pits/postholes also dated in Group V (PRN 31580). Pit [70202] contained Fengate style pottery, while pit [70054] contained Bronze Age pottery. In both cases the paired radiocarbon measurements for each feature are not statistically consistent, which suggests the deposits contain reworked or intrusive material. The two measurements (SUERC-81338 and SUERC-83268) are significantly different, and while the more recent date (SUERC-83268) is often taken to provide the best date for a feature (3970–3790 cal BC; 95% probability), even this range is likely considerably earlier than the generally accepted range for Fengate pottery in Wales (see *Dating Later Neolithic Pottery Styles* above) and may indicate that this sample is also residual. The paired measurements in pit [70054] were also significantly different, but here the two results are much closer in date, with the more recent result (SUERC-83269) providing a best estimate of 1400–1210 cal BC (95% probability) for the date of the feature.

The two results (SUERC-81340 and SUERC-83270) from pit [70452] (PRN 31581) are significantly different. While the two calibrated dates overlap at 95% probability, the later date (SUERC-81340) provides the best date for the infilling of the pit in 1890–1690 cal BC (95% probability).

The two results (SUERC-86066 and SUERC-87067) from posthole [70062] (PRN 31578) are significantly different, with the calibrated dates being separated by over 2000 years. The later date (SUERC-87066) is the best estimate for the infilling of the feature in 4350–4250 cal BC (95% probability), though it is highly likely that both samples were residual and this result is probably best considered to provide a *terminus post quem* for the formation of the deposit.

Question 4 – Area I: pit groups (PRNs 31572 and 31598)

There are seven radiocarbon dates from five pits associated with two pit groups in Area I. There are two dates (SUERC-81341 and SUERC-83271) from pits in Pit group 19073 (PRN 31598). The two results are not statistically consistent. The calibrated dates overlap significantly and suggest that there is likely some longevity to the activity associated with this pit group activity sometime in the 4th–3rd centuries cal BC.

Three pits were dated in Pit Group PRN 31572, with two having pairs of radiocarbon dates. There is statistical consistency between the paired measurements from pit [21221] and those from pit [21215]. All five dates were used in a basic chronological model to provide an estimate for the start, end, and duration of the associated activity. The model has good agreement and estimates that the pit activity began in 3205–3025 cal BC (94% probability), and probably 3110–3045 cal BC (68% probability). The activity ended in 3095–2910 cal BC (95% probability), and probably in 3060–3000 cal BC (68% probability). The overall duration of activity is estimated to have occurred for 1–260 years (95% probability), and probably for 1–75 years (68% probability). This pit group is associated with Fengate style pottery with the dating suggesting it falls in the latter period of Fengate use in Wales (see *Dating Later Neolithic Pottery Styles* above).

Question 5 - Area E: Neolithic activity (PRN 18406)

There are radiocarbon dates from five Neolithic features – three pits, a posthole, and a hollow – in Area E. The dates (SUERC-81343, -81347, -81348, -83277, and -83278) are all indicative of general activity in the area throughout much of the Neolithic period. SUERC-81347 and -81348, from pits [31595] and posthole [31631] show good concordance with the dating of the Neolithic structure in Area H (Question 1) and could likely be the result of contemporaneous activity.

Question 6 - Area E: large burnt mound (PRN 31582)

There are four radiocarbon results from three cuts of a large well/pit associated with the large burnt mound in Area E. The general chronology is coherent in the results, with the lower pit/cut [31593] earlier than the two results from the middle pit/cut [31415], which are both earlier than the upper pit/cut [31414]. The two results (SUERC-81350 and -81351) from the middle pit/cut [31415] came from samples with stratigraphic constraints, however the results are reversed from expectation with the lower result (SUERC-81350) being more recent than the upper result (SUERC-81351). While the individual pits are chronologically coherent, this does present to possibility for some fills to be secondary deposition of material from the period when that pit was in use.

Allowing for chronological ambiguity between the two fills within the middle pit, a chronological model was constructed that placed the radiocarbon dates in order based solely on the pit from which the samples were recovered. This model has good agreement and estimates that the burnt mound activity began in *2955–2215 cal BC (95% probability)*, and probably in *2525–2245 cal BC (68% probability)*. The activity ended in *2025–1290 cal BC (95% probability)*, and probably in *2005–1765 cal BC (68% probability)*. Activity in the area around the burnt mound appears to have occurred over a span of *245–1480 years (95% probability)*, and probably *330–770 years (68% probability)*.

Question 7 - Area E: small burnt mound (PRN 31583)

There is a pair of results from the fill (31002) of the small burnt mound in Area E. The two results are statistically consistent and could be the same age. The more recent result (SUERC-81353) provides the best estimate for the activity at this location (*2870–2580 cal BC; 95% probability*).

Question 8 - Area B1: pit group 25046 (PRN 31592)

Three pits within pit group 25046, which lies in Area B1, have been radiocarbon dated (SUERC-83280, -83281, and -83285). None of the pairs of measurements are statistically consistent, which suggests the dated activity is of a protracted length. Given the calibrations of the three dates barely overlap at their 95% probability ranges, it is only possible that two measurements could date from the same period (either the earlier or later two of the group). Therefore, the results suggest at least two periods of activity, but potentially three.

Question 9 - Area L3: structure 22171 (PRN 31593)

The two radiocarbon dates (SUERC-87071 and -87072) from Structure 22171 in Area L3 are considerably different. SUERC-87071 dates to the post-medieval–early modern period and is likely either an intrusive cereal grain or some other modern contamination. The late prehistoric result from the occupation layer places this activity in the middle of the range of dating from pit group 25046 (Question 8) in Area B1, which is quite close.

Question 11 - Area D3: hearth and pit group (PRN 31574)

There are two pits, both containing Grooved Ware pottery were dated. The results have been placed into a basic chronological model that assumes the features and dated samples are the result of a period of relatively continuous and uniform activity in this area. The model has good agreement between the dates and the archaeological assumptions and estimates that this activity began in either *3340–3290 cal BC (2% probability)* or *3155–2580 cal BC (93% probability)*, and probably in either *2865–2820 cal BC (6% probability)* or *2785–2585 cal BC (62% probability)*. The activity lasted for up to *955 years (95% probability)*, and probably for up to *350 years (68% probability)*. Dated activity ceased in either *2830–2810 cal BC (1% probability)*, *2655–2145 cal BC (92% probability)*, or *2075–2020 cal BC (2% probability)*, and probably in *2625–2440 cal BC (68% probability)*. The dating from these two pits is in general concordance with the dating of Grooved Ware pottery in Wales (see *Dating Later Neolithic Pottery Styles* above), falling into the earlier portion of the modelled use period.

Question 12 - Area K9: pit group (PRN 31573)

There are three radiocarbon dates from two pits in this group. The pits are associated with Mortlake style pottery and have been placed into a basic chronological model as described above for Question 11. The model has good agreement between the dates and the archaeological assumptions and estimates that this activity began in *3755–3105 cal BC (95% probability)*, and probably in *3390–3165 cal BC (68% probability)*. The activity ended in *3335–2665 cal BC (95% probability)*, and probably in either *3285–3255 cal BC (4% probability)* or *3240–3035 cal BC (64% probability)*. The total dated period of activity was up to *970 years (95% probability)*, and probably up to *265 years (68% probability)*. The chronology of the pits, when compared to the overall chronology of Mortlake style pottery in Wales, suggests this activity is relatively early in the overall dated use of this pottery style.

Question 16 – Area K9: postholes, pits and fire-pits (PRN 31596)

There are four radiocarbon results from samples recovered in three pits from Area K9 on the edge of the Roman period activity in Area K9. The result (SUERC-83289) from pit [80560] is 4th–3rd century cal BC, while the remaining three results date to the 1st–early 3rd century cal AD.

Question 17 – Area K9: corn dryers [80924] and [80835] (PRN 76100 and 76101)

There are paired dates from two corn dryers ([80835] and [80924]) excavated in Area K9. The two results from corn dryer [80835] are clearly from two different episodes of activity that are separated by over one-half millennium. However, the two results from corn dryer [80924] are statistically consistent and could be the same age. The dating suggests these two features date to the 5th to early 7th century AD. The results are explored more fully in relation to the dating of corn dryers in Question 20 (below).

Question 19 – Area K7: metalworking pit within long cist cemetery (PRN 31600)

A pair of radiocarbon results was obtained from feature [80044] that lay within the long cist cemetery in Area K7. This feature contained large quantities of metal-working debris. The two results (SUERC-81362 and -81363) are statistically consistent and could be the same actual age. The more recent result (SUERC-81362) provides the best date estimate for this activity in cal AD 330–530 (95% probability).

Question 20 – Corn dryers (PRN 31601, 31602, 31603 and 31604)

A total of six corn dryers have been radiocarbon dated from across the Parc Cybi excavations. Two samples were dated from each of four corn dryers, in addition to the measurements discussed in Question 17 (above). All 12 measurements have been placed into a simple chronological model that assumes the material forms part of a single phase of relatively uniform activity with no direct stratigraphic relationships between samples. The later Iron Age result (SUERC-85152) from corn dryer [80835] has been excluded. The model has good agreement and estimates that the corn drying activity at Parc Cybi began in *cal AD 410–545 (95% probability)*, and probably in either *cal AD 425–485 (55% probability)* or *cal AD 525–540 (13% probability)*. The corn drying activity lasted up to *170 years (95% probability)*, and probably either *1–75 years (65% probability)* or *115–130 years (3% probability)*. The activity ended in either *cal AD 435–515 (38% probability)* or *cal AD 535–610 (57% probability)*, and probably in either *cal AD 475–495 (21% probability)* or *cal AD 535–585 (47% probability)*.

Question 21 – Areas M2 and M4: Bronze Age monuments (PRN 31589, 31590 and 31591)

There are two radiocarbon results from fill (22108) in ditch [22111] (PRN 31591). The two results are statistically consistent and could be the same age. The later date (SUERC-84056) provides the best estimate for the date of the context formation in 1195–1010 cal BC (95% probability).

Question 23 – Area K1: pits near possible Bronze Age roundhouse (PRN 31588)

Four samples were dated from two features near the timber roundhouse in Area K1. The two results from charred cereal grains in fire pit [20081] are statistically consistent and could be the same age. The later result (SUERC-83295) provides the best date for pit [20081] of 1610–1430 cal BC (95% probability). The results from the two dated hazel nutshells in the presumed fire pit [18124] are separated by a few hundred years. Given that pit [18124] contained Middle Bronze Age pottery, it would stand to reason that the earlier result (SUERC-83291), which is Bronze Age, is the best estimate for the date of that feature of 1380–1120 cal BC (95% probability).

Question 25 – Area K7: clay walled roundhouses (PRN 31595)

There are eight radiocarbon results from seven contexts in clay-walled roundhouses in Area K7. While one sample (SUERC-81372) on a charred cereal grain produced a measurement that was beyond background, the remaining samples were broadly 6th–2nd century cal BC. The background result has been excluded, and the other results have been placed in a simple chronological model to estimate the timing of the occupation of the structure. The model has good agreement and estimates that activity within the roundhouses began in *535–395 cal BC (95% probability)*, and probably in *450–400 cal BC (68% probability)*. The activity persisted for *55–365 years (95% probability)*, and probably for *65–195 years (68% probability)*. It ended in *355–135 cal BC (95% probability)*, and probably in *350–255 cal BC (68% probability)*.

Question 26 – Areas B2/F1: stone-walled roundhouses (PRN 14599)

The stone-walled roundhouses had complex stratigraphic relationships and archaeological phasing which can be used with radiocarbon dates to increase the precision of the dating of the settlement. Twenty five radiocarbon dates were obtained and figure 67 provides a summary matrix of the site. A model was constructed that took into account the direct stratigraphic relationships between samples and aimed to provide robust date estimates for

the start and end of the identified phases of activity. Phase I includes contexts that pre-date the settlement, and has been separated into Phases Ia (Late Neolithic/Beaker activity under RHA) and Ib (Iron Age platform and occupation). The occupation of RHA.1, RHB.1, RHE, and RHI form the Phase II settlement, while Phase III occupation includes RHA.2, RHB.2, RHC.1, RHH, and Structure F. The final phase, Phase IV, is marked by the use of RHC.2 in the Roman Iron Age.

There are three instances where the radiocarbon dates are not in agreement with the order in which the samples were deposited in their respective contexts. There are two results from the deposits associated with RHA.1 that would appear to be residual. A fragment of willow/poplar charcoal from pit [91660] in RHA dates to the opening centuries of the first millennium cal BC, and is probably residual from the Early Iron Age activity on the site. A hazelnut shell from drain [90570] in RHA produced a date (SUERC-83299) in the 5th millennium cal BC. Finally, from the hearth of RHC.1, there is a 5th–4th century cal BC result (SUERC-83300) that is considerably earlier than other dated samples in Phase III deposits. Either this fragment of hazel charcoal is residual, or the construction and occupation of RHC.1 belongs in the earlier Phase II. In either way it is excluded from the modelling presented below.

For phase Ib samples were obtained from both the burning on the stone platform and from the occupation layer over the platform. These layers were distinct and their relationships were clear but the dates returned did not fit the stratigraphy perfectly with some sets of dates being reversed from expected. All the dates were quite similar and no other samples elsewhere in the settlement produced similar dates so this does represent a genuine phase of activity but it was not clear whether specific items dated had been mixed between these two layers, perhaps by bioturbation. All samples from this phase are therefore treated as dating the general activity and there has been no ordering within this phase in the model.

The model has good agreement between the stratigraphy, phasing, and radiocarbon results. While the dating for Phase Ia is not robust enough to provide refined estimates for the Late Neolithic activity, the dates do suggest this activity took place in the 25th or 24th century cal BC. The Early Iron Age activity began in *1310–920 cal BC (95% probability)*, and probably in *1080–945 cal BC (68% probability)*. This activity ended in *800–505 cal BC (95% probability)*, and probably in *790–690 cal BC (68% probability)*. Based on the dating, the Early Iron Age activity lasted for *145–700 years (95% probability)*, and probably for *180–400 years (68% probability)*.

The dating would suggest there was a break in activity between the Early Iron Age platform activity and the Middle Iron Age roundhouse of Phase II. These occupation deposits began in *450–245 cal BC (95% probability)*, and probably in either *420–355 cal BC (57% probability)* or *315–285 cal BC (11% probability)*. The transition between Phases II and III took place in *355–215 cal BC (95% probability)*, and probably in *310–230 cal BC (68% probability)*. Phase III ended in *295–140 cal BC (95% probability)*, and probably in *240–170 cal BC (68% probability)*.

The overall duration of the two main phases of occupation is rather similar. Phase II occupation lasted for up to *185 years (95% probability)*, and probably for *5–120 years (68% probability)*, while Phase III lasted for up to *160 years (95% probability)*, and probably for *1–90 years (68% probability)*.

Question 28 – Area B2: structure F (PRN 14599)

There are two dates (SUERC-83306 and -83307) from posthole [90741] in Structure F, which is a round structure to the north of the main roundhouse settlement. One result dates from the Bronze Age (SUERC-83307), while the other dates from the later Iron Age (SUERC-83306). While the Bronze Age date is most likely residual, the fact that the structure also contained Roman pottery and a fragment of shale bangle, which is likely also Roman in date, would suggest the later Iron Age sample is also residual. At present, the house should either be regarded as Roman in date or Iron Age with Roman material having been deposited on top of its remains.

Contingency dates (smithing)

Two sets of paired dates were obtained from pits containing smithing debris. The two results (SUERC-87440 and -87441) from pit [90037] are more than 50,000 radiocarbon years BP old. The samples were identified as oak charcoal, but it was noted during pretreatment that the two samples appeared to be highly mineralised. It would appear likely that the dated samples were coal that was either misidentified as charcoal or the mineralisation was such that the organic element of the charcoal was wholly replaced by mineral with a “dead” carbon content. The two results are excluded from further discussion.

There are two dated samples (SUERC-87442 and -87443) from pit [31152] that are statistically consistent and could be the same actual age. The more recent result (SUERC-87443) provides the best date estimate for this activity in cal AD 1020–1190 (95% probability).

Dating later Neolithic pottery styles

By Jane Kenney and Derek Hamilton

In 2000 Lynch was describing Grooved Ware as “only recently found in Wales” and the whole of later Neolithic pottery from the country as a “small but growing quantity” (Lynch 2000, 112). The quantity has since increased considerably and much of this material now has associated radiocarbon dates. Peterborough Ware also has many more dates than in 1993 when Gibson first presented the dates from Wales (Gibson 1993 and 1995a). A list of dates relating to Peterborough Ware and Grooved Ware has been compiled and presented in Table 12 (see figure 143 for location of sites). The database of radiocarbon dates from Wales compiled by Steve Burrow has proved very useful in identifying many of these dates. The sites are biased towards north-west Wales as grey literature for this area was also consulted. A more thorough consultation of grey literature would no doubt reveal more dates elsewhere in Wales, so this list has no claims to be complete. Dating Neolithic pottery is becoming routine and more dates are continually being produced, so this list will very soon be out of date. The results of this analysis must therefore be seen as provisional.

Only dates with a close association to pottery have been included, with the exception of a few, included in the table for completeness but excluded from Bayesian modelling. Sites where the relationship between the dated material and the pottery was not considered to be sufficiently close include Penmynydd, Caergeiliog, where a few small sherds of Peterborough ware, possibly Mortlake style, were recovered. None of the radiocarbon dates came from features containing pottery, most of which were tree hollows rather than anthropological features (Kenney and Shalcross 2012, Gibson 2012a). At Cefn Du, Gaerwen the date from a pit group was from a pit without pottery (Woodward 2012, 139), but the presence of both Grooved Ware and Peterborough Ware in some of the pits of the group suggests there may have been considerable mixing of material and dating specific pottery types would be difficult. At Sarn y Bryn Caled, Welshpool, Powys both Peterborough Ware and Grooved Ware were found in the same pit (pit 115) (Gibson 1994, 159), again suggesting mixing and a difficulty in dating specific pottery types, so dates from this pit have not been used. At Sarn y Bryn Caled site 2 sherds from the recut of a penannular ditch were dated by charcoal from the recut, associated with the pottery, so these have been used (Gibson 1994, 171–173). At Cleifiog Uchaf, Valley (Davidson 1999, 70–71) two similar dates were obtained on two postholes, but only one held Grooved Ware, so only this date can be used, though the other supports activity at that time. A few sherds of Peterborough Ware were found at the Tŷ Mawr ring ditch monument, Holyhead, possibly associated with a scatter of postholes, two of which produced Middle Neolithic dates (Kenney and Longley 2012, 106–110). As the dates and the pottery were not closely associated these dates have not been included in the table.

At Capel Eithin, Gaerwen two dates were obtained from pits containing Grooved Ware. Joining sherds of the same vessels were found in different pits within a small group. A pit in another group also contained some Grooved Ware sherds but produced a much earlier date, which can probably be attributed to residual material or old wood effect (White and Smith 1999, 34–38).

Gibson and Kinnes 1997 (p66) rejected dates from Ffronddyrys, one for being too early and one for an excessively large error. These dates are therefore not included below. Two Fengate sherds from the ditch of Henge A at Llandygai were part of a deposit in the middle of the ditch fill but were not very closely associated with the dated material (Lynch and Musson 2004, 43, 118). However, this is of little importance as the date has a very large error and is on mature oak, so it is not worth using in a comparison. A date from the cremation circle was more closely associated with another sherd but this was not identified to style and was not even certainly Peterborough ware. Of three dates from Ogmores-by-Sea one was very early even though taken on residue from a pot sherd, but Hamilton and Aldhouse-Green (1998, 113) suggest that it was contaminated by carbonaceous material in the clay of pottery. Many of the dates are on bulk samples of unspecified charcoal and should perhaps be rejected for that reason, but have been included until more high quality dates are available from across Wales.

The dates have been modelled in OxCal following a simple bounded phase model, with independent groups formed from dates on Ebbsfleet style pottery, Mortlake style pottery, Fengate style pottery, and Grooved Ware pottery (see Hamilton, volume 3 part XXIV for details of the model). The dates from Parc Cybi have been integrated into the model with the other dates (volume 3 Fig. XXIV.30 compares the start and end dates for the different pottery types).

Remembering the warning above that these are provisional results and will change with the inclusion of further dates it can be stated that the model estimates:

Ebbsfleet in Wales began in 4775–3295 *cal BC* (95% probability), and probably in 3910–3390 *cal BC* (68% probability). Ebbsfleet fell out of use in 3325–1750 *cal BC* (95% probability), and probably in 3250–2680 *cal BC* (68% probability).

Mortlake style pottery began to be used in 3565–3400 *cal BC* (95% probability), and probably in 3525–3425 *cal BC* (68% probability). Mortlake fell out of use in 2890–2675 *cal BC* (95% probability), and probably in 2860–2765 *cal BC* (68% probability).

Fengate was first used in Wales in 3375–3100 *cal BC* (95% probability), and probably in either 3350–3245 *cal BC* (57% probability) or 3145–3110 *cal BC* (11% probability). Fengate ceased to be used in either 3305–3180 *cal BC* (29% probability) or 3110–2910 *cal BC* (66% probability), and probably in either 3260–3220 *cal BC* (18% probability) or 3095–2995 *cal BC* (50% probability).

Grooved Ware began being used in Wales in 3125–2910 *cal BC* (95% probability), and probably in 3025–2930 *cal BC* (68% probability). Grooved Ware went out of use in either 2480–2370 *cal BC* (11% probability) or 2130–1895 *cal BC* (84% probability), and probably in 2110–1985 *cal BC* (68% probability).

By using the Order function in OxCal it is possible to directly compare the probabilities for the start and end boundaries of the different pottery styles. Within Wales, there is an 87% probability that the *start: Ebbsfleet style* predates the *start: Mortlake style*, a 98% probability that it predates the *start: Fengate style*, and a 99% probability that it predates the *start: Grooved Ware*. Similarly, there is over a 99% probability that *start: Mortlake style* predates both *start: Fengate style* and *start: Grooved Ware*, with a 98% probability that *start: Fengate style* predates *start: Grooved Ware*.

In 1994 Gibson found that Peterborough Wares appeared in Wales earlier than had previously been expected (Gibson 1994). The Gathering Time project modelled the same dates from south Wales and the Marches getting a start date for Peterborough Ware in Wales of 3615–3140 *cal BC* (95% probability) (Bayliss *et al* 2011a, 551), but this still included a small number of dates. The current results suggest an extension of that range. Ebbsfleet ware is shown as having a potentially very early start date but this is due largely to a reliance on a few dates, most of which have large errors. New dates coming from Borrás Quarry will clarify the start date for Ebbsfleet ware. The same argument can be used to question the last end for Ebbsfleet Ware but Mortlake Ware is much more robustly dated and is shown to continue well into the 3rd millennium BC, with Fengate Ware continuing until 3000 *cal BC*.

From as early as the 1970s Grooved Ware has widely been believed to have developed in Orkney (Thomas 1999, 117, Garwood 1999, 146; MacSween *et al* 2015, 284). Work as part of the Times of Their Lives project has recently shown that Grooved Ware started to be used at Poole on Sanday by 3210–2935 *cal BC* (95% probability) (MacSween *et al* 2015, 302) and at Barn House, Mainland by 3160–3090 *cal BC* (86% probability) (Richards *et al* 2016, 219). Other dated sites in Orkney and elsewhere in Scotland indicate a broadly similar date for the start of the use of Grooved Ware (Richards *et al* 2016, 220). Garwood estimated a start of the use of Grooved Ware in southern Britain no earlier than 3000/2900 BC (Garwood 1999, 152), but dates from Yorkshire are in general earlier than in southern England (Manby in Fenton Smith 2009, 183). Early dates are now being obtained in southern England (Alison Sheridan pers. comm.), so a general reassessment of the dates and spread of this ware seems to be necessary. The current dates from Wales are suggesting the possibility of Grooved Ware in Wales by 3000 *cal BC*.

The most interesting result comes from the probabilities of the ordering of the results. In 1994 Gibson considered the dates were suggesting that the stylistic variations of Peterborough Ware might have “little chronological significance” (Gibson 1994, 175). By 1999 Thomas suggested that it was possible to identify that the different sub-styles of Peterborough Ware were “equivalent or alternative variations on a cultural theme” (Thomas 1999, 109). These styles clearly overlapped for much of their duration of use but the current dates suggest a clear sequence for their arrival in Wales and that sequence followed the traditional interpretation of Ebbsfleet being the earliest style, then Mortlake, then Fengate. Grooved Ware appears at the end of the sequence and does overlap generally with the end of use of Peterborough Ware. However, on sites such as Parc Cybi and Parc Bryn Cegin, where both pottery types are found there is no significant overlap between the dates, with a sense of chronological separation between these types.

Independent models created for the dates for Mortlake, Fengate and Grooved Ware from Parc Cybi (see Hamilton, volume 3 part XXIV for details of the model, Fig XXIV.29), and these dates were compared with the wider Welsh

chronology. At Parc Cybi Mortlake style pottery began to be used in 3750–3105 cal BC (95% probability), and probably in 3390–3165 cal BC (68% probability). Mortlake fell out of use in 3335–2670 cal BC (95% probability), and probably in 3285–3035 cal BC (68% probability). Fengate was first used at Parc Cybi in either 3850–3807 cal BC (1% probability) or 3635–3020 cal BC (94% probability), and probably in either 3270–3255 cal BC (1% probability) or 3195–3030 cal BC (67% probability). Fengate ceased to be used in either 3260–3230 cal BC (1% probability) or 3100–2570 cal BC (93% probability) or 2445–2400 cal BC (1% probability), and probably in 3085–2930 cal BC (68% probability). Grooved Ware began being used at Parc Cybi in 3005–2695 cal BC (95% probability), and probably in 2905–2765 cal BC (68% probability). Grooved Ware went out of use in 2830–2410 cal BC (95% probability), and probably in 2640–2480 cal BC (68% probability).

There is only a 13% probability that *start: Mortlake (Parc Cybi)* occurred prior to *start: Mortlake style*, but a 93% probability that *end: Mortlake (Parc Cybi)* occurred prior to *end: Mortlake style*. This would suggest that the use of Mortlake style pottery at Parc Cybi was placed late in the overall Welsh chronology, but not at the very end. While there is a 23% probability that *start: Fengate (Parc Cybi)* happened prior to *start: Fengate style*, there is only a 10% probability that *end: Fengate (Parc Cybi)* occurred prior to *end: Fengate style*. Fengate use at Parc Cybi appears to have begun shortly after it began being used in Wales, but continued beyond the use at others sites. Grooved Ware appears to have a similar chronological pattern as Mortlake style pottery, with *start: Grooved Ware (Parc Cybi)* having a 4% probability of occurring prior to *start: Grooved Ware* and *end: Grooved Ware (Parc Cybi)* having a near 100% probability of occurring prior to *end: Grooved Ware*.

Table 12. Dates from features with Middle and Late Neolithic pottery in Wales

Site	Material	Date BP	Calibrated date 95% probability cal BC	Lab No.	Reference
Undifferentiated Peterborough ware					
Betws yn Rhos, Conwy	Charcoal (?alder)	4540 ± 40	3370-3090	Beta-241248	Grant 2007
Pen y banc (site 23.07), Manordeilo and Salem, Carmarthenshire	Hazelnut shell Hazelnut shell	4515 ± 29 4580 ± 40	3360-3090 3500-3100	SUERC-54700 Beta-257720	Hart 2013a, 6
Peterborough ware: Ebbsfleet style					
Borras Quarry, Wrexham	Charcoal (hazel)	4755 ± 27	3640-3380	SUERC- 42306	Jones and Grant forthcoming
Four Crosses, site 5, Llandysilio, Powys	Charcoal	4440 ± 70	3360-2900	CAR-670	Warrilow <i>et al</i> 1986, 64
Gwernvale, Powys	Charcoal Charcoal	4590 ± 75 4390 ± 70	3630-3040 3340-2880	CAR-116 CAR-114	Britnell and Savory 1984, 152
Peterborough ware: Mortlake style					
Bolton Hill Quarry, Pembrokeshire	Hazelnut shell Hazelnut shell Hazelnut shell Hazelnut shell	4575 ± 40 4560 ± 40 4555 ± 40 4440 ± 40	3500-3100 3490-3100 3490-3090 3340-2920	SUERC-30132 SUERC-30118 SUERC-30117 SUERC-30113	Johnson and Tinsley 2010, 17
Borras Quarry, Wrexham	Charcoal (hazel) Hazelnut shell	4600 ± 40 4420 ± 30	3520-3110 3330-2920	Beta-256752 SUERC-31350	Jones and Grant forthcoming
Carrog, Llanbadrig, Anglesey	Charcoal (hazel)	4480 ± 30	3340-3080	SUERC-33074	Smith <i>et al</i> 2014
Dyffryn Lane, Powys	Hazelnut shell Hazelnut shell Hazelnut shell Hazelnut shell Hazelnut shell Hazelnut shell	4480 ± 40 4490 ± 40 4530 ± 40 4330 ± 50 4280 ± 40 4480 ± 40	3340-3020 3340-3020 3360-3090 3100-2880 3080-2860 3340-3020	Beta-231247 Beta-231248R Beta-236462 Beta-231250 Beta-231250R Beta-231251R	Gibson 2010, 230, 232, 236-238
Great Carn, Cefn Bryn, Gower	Hazelnut shell Charcoal Charcoal Charcoal	3990 ± 100 4340 ± 100 3960 ± 100 4230 ± 95	2880-2200 3350-2690 2870-2140 3090-2500	Birm-1238 Birm-1237 Birm-1236 Birm-1235	Ward 1987, 40

Ogmore-by-Sea, Glamorgan	Residue on pot Hazelnut shell Charcoal	5870 ± 90 4320 ± 80 4659 ± 52	4950-4520 ¹ 3310-2700 3630-3340	OxA-5318 HAR-1140 BM-1112	Hamilton and Aldhouse-Green 1998
Parc Bryn Cegin, Llandygai, Gwynedd	Hazelnut shell Hazelnut shell	4504 ± 30 4437 ± 30	3360-3090 3330-2920	NZA-26671 NZA-26672	Kenney 2009, 124
Sarn y Bryn Caled site 2, Powys	Charcoal (oak, sapwood) Charcoal (oak, sapwood)	4200 ± 40 4400 ± 45	2900-2630* 3330-2900*	BM-2819 BM-2820	Gibson 1994, 161
Ty'n Coed, Clynnog, Gwynedd	Charcoal, branchwood Charcoal, branchwood Charcoal, branchwood Charcoal, branchwood	4693 ± 20 4728 ± 20 4700 ± 20 4677 ± 20	3630-3370 3640-3370 3630-3370 3620-3370	NZA-34259 NZA-34260 NZA-34261 NZA-34262	Roberts forthcoming
Upper Ninepence, Hindwell, Powys	Charcoal Charcoal (mixed short-lived) Charcoal (hazel)	4470 ± 80 4400 ± 50 4590 ± 60	3360-2920 3310-2910 3520-3090	SWAN-23 BM-2967 BM-3071	Gibson 1999, 38, 81-82
Peterborough ware: Fengate style					
Borras Quarry, Wrexham	Hazelnut shell	4500±30	3350-3090	SUERC-31357	Jones and Grant forthcoming
Brynderwen, Llandyssil, Powys	Hazelnut shell Residue on pot	4550 ± 50 4440 ± 70	3500-3090 3360-2900	OxA-5317 OxA-4409	Gibson 1993; 1995, 49
Cae Glas, Holyhead, Anglesey	Hazelnut shell	4483 ± 28	3350-3020	SUERC-57569	Wessex Archaeology 2015, 17
Upper Ninepence, Hindwell, Powys	Charcoal (hazel/poplar) Charcoal (Pomoideae)	4410 ± 35 4490 ± 60	3300-2920 3360-2930	BM-2966 BM-3070	Gibson 1999, 38, 81-82
Parc Bryn Cegin, Llandygai, Gwynedd	Residue on sherd Hazelnut shell Hazelnut shell	4479 ± 30 4467 ± 30 4517 ± 30	3350-3020 3340-3020 3360-3090	NZA-26679 NZA-26687 NZA-26688	Kenney 2009, 124-125
Grooved Ware					
Bolton Hill Quarry, Pembrokeshire	Hazelnut shell Hazelnut shell	3810 ± 40 3715 ± 40	2460-2130 2280-1970	SUERC-30139 SUERC-30138	Johnson and Tinsley 2010, 23
Capel Eithin, Gaerwen, Anglesey	Charcoal Charcoal Charcoal	3950 ± 75 3580 ± 70 4740 ± 80	2840-2200* 2140-1740* 3660-3360*	CAR-446 CAR-447 CAR-481	White and Smith 1999, 34-38

T12.1 Date probably contaminated, not used in modelling.

Cilsan (site 21.02)	Charcoal (alder) Charcoal (hazel) Hazelnut shell Hazelnut shell Hazelnut shell Hazelnut shell	4224 ± 40 4289 ± 40 4158 ± 29 4160 ± 29 4143 ± 29 4136 ± 29	2910-2670 3020-2770 2880-2630 2880-2630 2880-2620 2880-2610	SUERC-56040 SUERC-56039 SUERC-54690 SUERC-54689 SUERC-54688 SUERC-54684	Hart <i>et al</i> 2013, 6, 7, 20, 23
Cleifog Uchaf, Valley, Anglesey	Charcoal Charcoal	3670 ± 40 3660 ± 40	2200-1930 2190-1920 ²	Beta-127204 Beta-127203	Davidson 1999, 70-71
Hendre, Flintshire	Charcoal (alder)	3870 ± 70	2570-2130	CAR-1279	Brassil and Gibson 1999, 91, 96
Mynydd Mwyn Farm, Pen-mynydd, Anglesey	Hazel charcoal Hazel charcoal	4380 ± 40 4390 ± 40	3100-2900 3260-2910	Beta-280900 Beta-280901	Davidson <i>et al</i> 2010, 14-15
Parc Bryn Cegin, Llandygai, Gwynedd	Hazelnut shell Hazelnut shell Hazelnut shell Hazelnut shell	4567 ± 30 3976 ± 30 4201 ± 30 4192 ± 30	3490-3120 ³ 2580-2460 2900-2670 2890-2670	NZA-26680 NZA-26681 NZA-26693 NZA-26694	Kenney 2009, 124-125
St Athan, Vale of Glamorgan	Hazelnut shell	4172 ± 30	2890-2630	SUERC-82556	Stephen Thompson, Headland Archaeology (pers. comm.), date used with kind permission
Steynton (site 513)	Charcoal (hazel) Charcoal (hazel) Charcoal (hazel) Hazelnut shell	4120 ± 29 4138 ± 29 3966 ± 29 4185 ± 29	2870-2570 2880-2610 2580-2340 2890-2660	SUERC-54660 SUERC-54659 SUERC-54662 SUERC-54661	Hart, Barber and Leonard 2014, 9, 76
Trelystan, Powys	Charcoal (hazel etc) Charcoal (hazel etc) Hazelnut shells	4260 ± 70 4135 ± 65 3985 ± 70	3090-2620* 2890-2500* 2860-2280*	CAR-272 CAR-273 CAR-274	Britnell 1982, 191
Ty'n Coed, Clynnog, Gwynedd	Hazel charcoal Hazel charcoal	3956 ± 15 3665 ± 15	2550-2460 2565-2460	NZA-34257 NZA-34256	Roberts forthcoming
Upper Ninepence, Powys	Charcoal Charcoal (hazel) Charcoal (mixed short-lived) Charcoal (mixed short-lived)	4240 ± 70 4060 ± 40 4050 ± 35 4160 ± 35	3040-2610 2870-2490 2870-2490 2890-2610	SWAN-24 BM-3069 BM-2969 BM-2968	Gibson 1999, 43, 82-83

* Dates recalibrated using Oxcal v4.3 (Bronk Ramsey 2009)

T12.2 Near posthole with pottery, but not close relationship to the pottery, not used in modelling.

T12.3 From same pit as NZA-26681. These two dates are not statistically consistent and NZA-26681 provides the best date for the pit (Marshall et al 2008, 189).

DISCUSSION

Landscape

This is a site with a distinctive landscape, both within and around the site. It is most obviously on an island off an island. Currently the sea is closest to the site to the north-east, where it is about 0.8km from the site boundary but sea can be reached in 0.9km to the south-east and 1.3km to the south-west, so in all directions, except to the north-west it is an easy walk to the coast. That distance to the coast, and in fact the existence of Holy Island as an island, has changed over the long history of the site.

At the start of the Holocene sea levels around North Wales were about 30m lower than present (M. J. Roberts 2006, 293). From c. 11500 calendar years BP the sea level started rising quickly, continuing to rise quickly for about 3000 years but slowing after 8500 BP. By 5000 BP it was 2m below current ordnance datum, after which the rate of sea level rise was minimal (M. J. Roberts 2006, 285-6). Study of seismic data and sediments in the Menai Strait has shown that much of the strait was formed by 8600 BP but the Swellies remained as a causeway between Anglesey and the mainland, often submerged at high tide. Sometime between 5600 and 4800 BP this causeway became permanently submerged and Anglesey became a true island (M. J. Roberts 2006, 358, 364).

Anglesey was therefore basically an island before the Neolithic people arrived but it was still possible to cross on foot at low tide until the Late Neolithic period, after which the use of boats would be necessary. The strait between Holy Island and Anglesey has not been studied in detail. The strait presumably originated from the lower reaches and mouth of the Afon Alaw before the northern end was breached by sea level rise. As most of the northern part of the strait is still only under water at high tide it suggests that the breach occurred much later than that which turned Anglesey into an island, raising the possibility that Holy Island was not a true island in the prehistoric period.

It is likely that other more subtle changes have occurred around the coast. The Ordnance Survey County Series maps show a marshy area running inland from Penrhos Beach (also known as Porth Wen or Penrhos Bach)³⁴ (figure 144). This area has been separated from the sea since a road was built along the edge of the beach; Penrhos estate maps suggest that this road was built before 1768. Prior to that date it is likely that this area was flooded at high tide and perhaps was a navigable channel. This could have taken vessels to within about 300-400m of the focus of Bronze Age, Iron Age and Roman period activity on Parc Cybi. The chambered tomb would also have overlooked this inlet, though it is perhaps less likely to have existed as an inlet in the Neolithic period when the sea level was lower.

An intriguing, but now lost site, seems to have been closely linked to this inlet. Stanley on his map of antiquities (Stanley 1868, map opposite p385) shows a “Danish fort” (PRN 2509) at the head of Traeth Penrhos, then known as Borth Wen (figure 145). Smith (2005, 22-23) suggests this was not a defensive site and thinks that Stanley was referring to the nearby coastal promontory of Bryn Glas. However, the map shows a considerable mound next to the beach making it unlikely that Stanley was confused about the position. The location as Stanley gives it is right next to the probably mouth of this inlet. A defensive site controlling this inlet might in fact fit with the Viking period, though sites referred to by antiquarians as “Danish” sites might actually be of any period. Possibly this was an Iron Age enclosed site, though a medieval identification is not impossible (see the medieval section below). Unfortunately, Stanley does not describe the site and it is not clear how it might have related to the Parc Cybi story.

The ends of this proposed inlet and the valley mire in the western half of Parc Cybi would have been only about 460m apart. The land between these was the focus for Bronze Age and Iron Age settlement. The marshes around the inlet may have extended almost as far as this settlement area, as the small marsh in Area K was probably a remnant of this. The marshes would have provided food in the form of wild birds and resources, particular reeds for thatching. The Iron Age roundhouse settlement would have required considerable quantities of reeds to thatch the large roofs. This settlement was positioned immediately adjacent to the long valley mire that had developed in a glacial basin next to a line of crags. While this had been open water in the late glacial period it was marshland in the Iron Age and could have been a source of reeds and alder carr might still have survived at its edges in places to supply fuel. This marsh was the obvious source of water for the settlement but in summer at least this may have meant digging a sump in the peat to collect water. The current channel is not a natural stream but drainage leading to a culvert up to 2m below ground, so there was no natural stream through the marsh. The proximity of the settlement to the marsh however does indicate that it may have been of importance for more than just practical resources.

34 This was highlighted by Smith (2002, fig 27)

The rocky bones of the landscape would have remained unchanged until the Parc Cybi development, when some of the knolls and rounded hills were levelled or altered. A rounded knoll, about 3m high, next to the valley mire in Area F2 was largely composed of rock with glacial deposits rounding off its profile. This knoll was quarried for road stone during the development and no longer exists. The knoll on which the cemetery was laid out in Area K7 was also composed of rock rounded by glacial deposits and the north-west side of this was cut away to hide a sub-station in the landscape. The other rocky outcrops survived at the time of writing, including one immediately south of the location of the Early Neolithic building. These would have been familiar features to the inhabitants of the area from the Neolithic onwards, used in that period to perhaps hide or shelter the timber building and provide the chambered tomb with a prominent position. The location of the tomb and the adjacent rocky knoll later used by Trefignath Farm would have provided useful look-out points, whether for viewing sunrise, or keeping an eye on livestock or on the activity of people. They would also have formed landmarks for those moving through the landscape. The chambered tomb itself might also be considered a landscape feature, as it too would have been a consistent, largely unchanging presence from the Middle Neolithic until stone was robbed from the cairn, in the 18th century to build field walls and make gate posts. The tomb was saved from further destruction by the intervention of Lady Stanley of Penrhos (Stanley 1867a, 234).



Plate 232. The cairn-like summit of Holyhead Mountain

The largest outcrop of all, Holyhead Mountain, would have looked over the site throughout its history, sometimes of cultural significance and at other times largely disregarded, but always visible, when the weather allowed. Holyhead Mountain, although only 220m OD, dominates Holy Island and much of northern Anglesey, which is otherwise low-lying. It has dramatic crags on the south-west side and especially from a distance resembles a very large cairn (plate 232). Cooney (2004, 149) refers to mountains as appearing as islands from the sea and being used as landmarks by seafarers. Although not as high, and therefore as visible from a distance as the mountains of Snowdonia, Holyhead Mountain would have been a vital landmark for travellers as it marks the northern corner of Anglesey when none of the rest of the island would have been visible. It is visible from the end of the Llŷn Peninsula and Bardsey Island so could be used to navigate directly across the Caernarfon Bay. It would also act as a beacon warning of the strong tidal currents at its foot. Such a function may have been particularly important in the Early Neolithic period when there is considerable cultural evidence for links across and around the Irish Sea. There must also have been links in the Early Bronze Age as indicated by the similarity in North Wales and Ireland of some burial rites and burnt mounds, and the export of copper and gold from Ireland. Its importance as a sea mark may have enhanced the significance of this mountain that was already prominent from the land. It is argued below that its significance continued into the Iron Age.

Holyhead Mountain is prominent from Parc Cybi and the rough alignment of the chambered tomb, standing stone and ceremonial complex might be taken to be approximately referring to it. The mountain is very visible from the tomb, and the first phase of the tomb opened to the north, though not directly towards the mountain. The general view towards the mountain may have been significant but there is no evidence that the tomb referred to the mountain in its design. Cummings describes the mountain as being an integral part of the structure of the tomb (Cummings 2004, 34), but there are only general views, not even approximate alignments so this seems an extreme interpretation. If the tomb was not built to reference the mountain it appears that in the Bronze Age it

might have been incorporated into an alignment that could have been intended to do so. It has long been noticed (Baynes 1910-11, 71) that the standing stone seemed to have been positioned at a point from which the tomb could be seen on the skyline, so indicating that the Neolithic tomb may have been significant to the Bronze Age people of the area. The ceremonial monuments found in the current excavations create a rough line with the standing stone and the tomb running north-west to south-east. The location of a probable cist found in the 19th century (see below) is also roughly on the same line. This alignment does not point perfectly at the summit of Holyhead Mountain (figure 146), but this is only noticeable when the sites are plotted on a map. On the ground the alignment is generally leading towards the Mountain on the horizon.

The Royal Commission Inventory (RCAHMW 1937, 23) lists two cairns on the top of Holyhead Mountain (PRNs 15691 and 15692). One of these (PRN 15691) when excavated proved to be the collapsed remains of a Roman signal tower (Crew 1980, 1981, 2010) and this had no circular cairn under it as suggested by the Commission (RCAHMW 1937, 23). Under the modern summit cairn and Ordnance Survey trig pillar an arc of boulders was found but this overlaid the mortared rubble from the signal tower and was associated with a large fire the debris of which included iron bolts and late 19th century glass (Crew 1980, 42). The boulder arc therefore seems to have been the border of a fire site, possibly even a beacon, used into the 19th century. However on the south-eastern corner of the summit plateau the Inventory marks the remains of a cairn (PRN 15692) defined by an arc of five large stones on a boss of rock. The location of this can be seen though no convincing traces of the cairn now survive and the location suggests that the diameter of 30 yards recorded in the Inventory is an error. However, there is no reason to doubt that there was a cairn there and that it was Bronze Age in date. If this is the case its position on the south-eastern side of the summit, where possibly it was visible on the skyline from Parc Cybi might be significant. Certainly Parc Cybi is visible from the cairn location, though whether the cairn would have been large enough to be obvious on the skyline is less certain.

In the Bronze Age monuments may have been linked through the landscape and Holyhead Mountain may have played an important role in the cultural understanding of the landscape. As discussed below that importance may have continued into the Iron Age.

Reconstructing the past environment

The results of the pollen analysis suggest the loss of later deposits due to peat cutting so the information on later periods is sparse, a situation contributed to by the failure to obtain full analysis so that detailed sampling that might have picked up later evidence was not carried out. However, Greig's 1979 study (Greig 1987) and some information from around the edge of the marsh in Area F1 do contribute a little to the understanding of the later environment.

In the later glacial period there was a freshwater lake in Area G, which gradually infilled with peat. The marsh in Area K probably also had areas of open water at this time. At the end of the glacial period a relatively open landscape initially prevailed, prior to the expansion of birch dominated woodland in response to Holocene climatic amelioration. The woodland subsequently became denser, with hazel and willow replacing the previously dominant birch scrub/woodland. Birch grew around the edge of the marsh in the Mesolithic period and alder and willow were also common, forming carr woodland around the marshes. The marsh in Area K would have been very much larger and probably joined with marshland leading to the coast.

By the Mesolithic period most of the landscape was covered by dense woodland with ferns beneath the trees and hazel as an understory. The evidence across the site for the make-up of this woodland is varied. The core from Area G suggests a mixed woodland consisting largely of hazel, birch, alder and willow, but the sample from the edge of the same marsh indicated more oak. Greig's samples in the Area K marsh indicated a climax forest consisting of oak, elm and ivy with hazel possibly as an understory, and lime being very rare (Greig 1987, 39), and the Birmingham Archaeo-Environmental sample even included some pine.

The pollen samples from the buried soil at the edge of the marsh, which was exposed in the Bronze Age, showed that the landscape remained densely wooded with very little evidence for anthropogenic disturbance to the vegetation. However, traces of erosion and burning that Greig found in Area K were suggestive of at least small areas of clearance in the Neolithic period. Pollen analysis of soil samples from under the Trefignath cairn provide even clear evidence for Neolithic agriculture. Even under the primary cairn species indicating pasture land were dominant. Arable cultivation was represented by cereal pollen and two pollen grains of celtic bean were also

found (Greig 1987, 43). Even before the Neolithic period the presence of heather pollen suggests some open areas with heath developing on poorer soils. The charcoal recovered from Parc Cybi shows use of hazel as fuel and a small amount of *rosaceae* species. This might suggest some management of the woodland margins to encourage hazelnut trees and possibly wild fruit trees. Hazel nut shell fragments from deposits dating to throughout the Neolithic period indicate the consumption of hazel nuts, and it seems reasonable to suppose that these were managed to increase productivity. This food seems to be rarely represented in later periods, although the presence of hazel charcoal shows that there were trees nearby.

The charred plant remains show that there were cereals cultivated in the area from the Early Neolithic throughout the period, although the preservation was not good enough to identify the species grown. The presence of cereal pollen under the Trefignath cairn suggests that fields of cereals were grown close to the tomb and timber building in the Early Neolithic period. The small number of grains from Neolithic contexts suggests that relatively little grain was used and the fields may have been small. Alternatively it could be that cereals were processed and the waste disposed of away from domestic sites and little grain became charred. It certainly seems that the Neolithic landscape had some clearings used for growing cereals, but the extent of these fields is unclear.

Few Bronze Age samples contained charred plant remains due to the nature of the samples but one from close to the possibly Bronze Age timber roundhouse contained much larger numbers of cereal than the Neolithic samples. It is probable that there were more and larger arable fields in the Bronze Age. By the Iron Age much of the area must have been under arable or pasture fields. Evidence from a clay-walled round house in Area K7 showed that straw was used for thatching the roundhouses, suggesting that straw was available in large quantities. Spelt wheat was introduced by the Iron Age, though there is little evidence of these at Parc Cybi. Oats seems to have started to become important in the late Roman period and was prominent in the Early Medieval corn dryers, though in most cases barley formed a larger proportion of the identifiable grains. The number of corn dryers of Early Medieval date suggests that Parc Cybi was still farmed and occupied during this period, although evidence elsewhere in the region suggests a reduction in the population and abandonment of some areas.

The later part of Greig's pollen sequence suggested that the forest had been replaced by grassland and arable fields. This probably refers to the medieval period, and later, expanding arable farming caused increased erosion into the bog. Prior to this evidence for arable agriculture is seen in the micromorphological studies of soil buried under the roundhouse settlement. These showed disturbance typical of agricultural soils, but also earthworm sorting, suggesting that they were probably untilled for some time before the houses were built. This suggests that in the Early Iron Age there was a stable grassland or scrub after an earlier phase of tilling. The amount of settlement activity found on Parc Cybi dating to the Middle Iron Age and the number of settlements in the general area suggests that the landscape was open and generally farmed across much of Holy Island.

Throughout most of the history of Parc Cybi species used for fuel were predominately oak, with some hazel and willow/poplar and very occasionally other species. Although other evidence suggests significant changes in the environment, especially more open land in the Iron Age, this shows that there was woodland nearby and preferred wood could be collected. The only change comes in the Early Medieval period when a wider range of species were used to fuel corn dryers. This included buckthorn, alder, ash and *rosaceae* as well as oak, willow/poplar and hazel, suggesting a change in the available woods during this period. As evidence from elsewhere shows an expansion of woodland in the post-Roman period this may represent shrubby species expanding onto previously open land.

The fragmentary and poorly preserved animal remains from the roundhouse settlement do indicate that within this landscape cattle, sheep or goats and pigs were kept. Horses, perhaps more likely kept for riding than food, were also grazed in the meadows. The number of spindle whorls from the settlement suggests the importance of sheep, though it is not impossible that they were also spinning flax or other plant fibres. The absence of animal remains from other periods, until the latest post-medieval deposits, means that it is difficult to determine what livestock was kept. However, the pasturelands identified in the Neolithic period were presumably for cattle and perhaps sheep, as demonstrated by the importance of dairy products reflected in the results of the lipid analysis on the Early Neolithic pottery.

Mesolithic

The Mesolithic period is generally difficult to see in north-west Wales. On Holy Island Mesolithic flint scatters have been identified at the Range or Penrhosfeilw Common where erosion along the cliff tops has revealed flints some of which can be identified as Mesolithic (Smith and Kenney 2014). Under the sands of Penrhos Beach is the peat of a submerged land surface (PRN 16604) (Smith 2002). The eroding sand on the shore of the bay has also revealed flint scatters (PRN 2505), some reported to be microliths, in what is described as a knapping floor with quartz flakes and occasional animal bones (Williams 1950b and PRN 2505). Flints have also been seen eroding from the Bryn Glas headland (PRN 7895), though Smith (2002) says that these were Neolithic.

One hundred and nineteen knapped stone artefacts were found during Christopher Smith's excavations at Tŷ Mawr, South Stack (Smith 1986, 12-23). Most of these came from a single area of the site and are considered to be Mesolithic in date, indicating an activity or even occupation area of this period. The assemblage included both scalar and blade cores and knapping waste indicating knapping on site. There were also microliths and microburins, proving a Mesolithic date and two scrapers suggestive of domestic activity. The assemblage is considered to be Late Mesolithic, possibly as late as the fourth millennium BC (Smith 1986, 23).

The coastal nature of most of the finds is partly related to conditions favouring discovery, but may also indicate that most activity in this period was concentrated on the coast. The west coast of Holy Island falls steeply into the sea with 15m below sea level being reached within 200m from the coast of Penrhosfeilw Common (Navionics Chart Viewer). The coast in the Mesolithic period would therefore have been within possibly 100m of the present coastline, and the flint scatters represent genuine coastal activity. The flints found at Tŷ Mawr, show that excavation can reveal activity further inland, though this site is still only about 600m from the present coast.

The Mesolithic evidence from Parc Cybi is slight and widely scattered. It consists mainly of a small number of microliths that could have been casual losses during hunting or gathering activities. The small group of finds in Area H, including a core as well as a microlith, is slightly more suggestive of an activity focus, and two microliths and a Mesolithic radiocarbon dates hint that the hollow in Area E used extensively in the Neolithic period may also have provided temporary shelter at this earlier date. A possible Mesolithic structure (PRN 31578) in Area J was not sufficiently well dated for this interpretation to be any more than tentative. Together this slight evidence does suggest that land away from the coast was also occasionally used in the Mesolithic period but more evidence is needed to confirm occupation inland.

Neolithic

Timber halls

The Gathering Time project (Whittle *et al* 2011) has provided dates for the start of the Neolithic in many regions of southern Britain as part of their dating of causewayed enclosures, but due to the lack of causewayed enclosures in North Wales this area was not included in the study. Bayliss *et al* (2011a) did look at south Wales and the Marches and their model of available dates suggested that the Early Neolithic started there in the late 38th or early 37th century cal BC (Bayliss *et al* 2011a, 553). Dates from Parc Cybi are consistent with the first Neolithic activity appearing at this time, though in common with most excavations it is the larger, more artefact rich sites that were dated. The current author suspects that the very earliest Neolithic will only be found when enough isolated, slight pits and postholes containing either pottery or charred cereals are dated. Parc Cybi certainly demonstrates that by 3725–3655 cal BC (95% probability), or probably 3710–3665 cal BC (68% probability) the full Neolithic package of pottery, cereals, rectangular timber buildings and tombs had arrived in North Wales. A date supported by the date of 3800–3670 cal BC (95% probability) and 3760–3700 cal BC (68% probability) for the start of the rectangular timber building at Parc Bryn Cegin, Llandygai (Kenney 2009, 26-27).

In 2004 Cummings and Whittle (2004, 3-4) used the lack of Early Neolithic timber buildings in Wales to argue that the population was more mobile than in Ireland or Scotland, where these structures were being increasingly found. Since that date it has been shown that there were substantial rectangular timber buildings in Wales in the Early Neolithic. Such buildings have now been found at Llandygai, where there were two buildings about 500m apart (Lynch and Musson 2004, Kenney 2009), Llanfaethlu with four buildings close together but not all contemporary (Rees and Jones 2017a) and Parc Cybi. A similar structure has been suggested on Moel y Gaer, Flintshire (Britnell 1991, 55, 58), and much smaller rectangular structures were excavated at Clegr Boia (Williams 1952). There has been a claim of several rectangular Early Neolithic buildings at Trostrey, Monmouthshire (Mein 2003 and 2004),

but they appear poorly dated and full publication is necessary before they can be considered.

No large rectangular buildings have yet been found in South Wales, despite large scale commercial excavations being more numerous there than in the north. Early Neolithic features found at Cwmifor, Manordeilo and Salem, Carmarthenshire have been interpreted as a small rectangular structure, but this would seem more sensibly

interpreted as a circular building (Barber and Hart 2015³⁵). It is possible that the large buildings were more a feature of North Wales, though any argument from negative evidence is likely to experience the same fate as that quoted above.

These were large buildings representing considerable constructional and carpentry skills and were a permanent feature of the landscape for the duration of their life. However, there is an indication that the life of these buildings was not particularly long. Some medieval timber framed buildings are still in use after many centuries but the Neolithic structures seem to have lasted no more than 3 or 4 generations. Dates from the building at Parc Bryn Cegin, Llandygai showed a duration of probably *40-110 years (68% probability)* (Kenney 2009, 27) and the Parc Cybi building had a similar duration of probably *30-75 years (68% probability)*. Insufficient good dates were obtained from the Llandygai Industrial Estate building to obtain a duration of use and dates on the Llanfaethlu buildings are eagerly awaited.

This duration fits with those of other similar structures across Britain and Ireland (Smyth 2014). Not only was the use of the buildings relatively short but the style of building had a currency of no more than two or three centuries across Britain and Ireland. The rectangular buildings may have influenced the style of unroofed and eventually very large timber ceremonial structures, at least in Scotland (Brophy 2007), but they seem to have had no influence on later domestic architecture. Large domestic, or partially domestic, buildings disappear until they reappear in the Bronze Age, almost exclusively as roundhouses.

This short phase of use perhaps indicates that there was something distinctive about these structures and they were not just domestic houses. Some of these building have few finds, as if rarely used, though in many cases, such as Parc Bryn Cegin, the scarcity of finds is due to the loss of occupation layers. At Parc Cybi large quantities of artefacts that appeared to be domestic waste were recovered, which shows that people were living and cooking in the building but that does not necessarily prove this to be a family home.

The Parc Cybi hall and the Trefignath Chambered Tomb

The timber building at Parc Cybi is of particular importance because of its location in relation to the Trefignath Chambered Tomb. The two features are about 97m apart but they are on almost exactly the same alignment (figure 147). The building was situated just north of a rocky outcrop. This may have given some protection against winds, though the prevailing winds are westerly or south-westerly. However, the building is positioned so that the tomb would be visible past the edge of the outcrop, as if visibility of the tomb was important. Both tomb and timber building were on the top of a gradual rise, with the tomb on the skyline when viewed from the north-west, but a broadening of the ridge would have blocked the view of the building from a distance. The rock outcrop also would have made the building less obvious and would have largely hidden it from the south (plate 24). The tomb is at a slightly higher level than the building and the western end of the tomb would have been on the eastern skyline from the building. There was almost certainly clear visibility between the two features in the Neolithic as pollen analysis from the buried soil under the tomb showed that the immediate landscape was open grassland (Greig 1987, 43).

The development of the tomb is known in considerable detail because it was fully excavated in the late 1970s by Christopher Smith for the Welsh Office in advance of consolidation of the monument (Smith 1987b). This showed that the tomb had three phases and changed its form significantly. Prior to the first tomb there was activity on the site resulting in a scatter of lithics and pottery in the ground surface under the cairn. This may have been related to the building of the monument but it could indicate earlier activity. Four features were found under the cairn, which were interpreted as intercutting postholes that could all have been in use together. These postholes were quite substantial and could hint at a timber structure pre-dating the tomb, though there was insufficient evidence to suggest the plan of such a structure. The first tomb had a small chamber opening to the north and probably had a small circular cairn. Smith suggests that this was a simple passage grave (Smith 1987b, 14). The cairn was then extended into a long cairn and a new chamber built to the east. This new tomb had a new alignment, east-north-east to west-south-west, with the chamber opening to the east-north-east where there was a forecourt. The cairn

35 Thanks to Steve Burrow for bringing this site to my attention

was then further lengthened and a third chamber built with a new forecourt (figure 148).

A radiocarbon date of 3980-3690 cal BC³⁶ (HAR 3932) gives an Early Neolithic date for the building of the first tomb (Smith 1987b, 45). The date was on charcoal from the ground surface under the first cairn, so it cannot provide a precise date for the building of the tomb but does give a general indication. Sherds of Peterborough Ware and possible Grooved Ware from the forecourt of the third chamber indicate the use of the tomb, or at least use of the forecourt into the Middle and possibly Late Neolithic.

The date of the tomb is too uncertain to be sure of the sequence in relation to the timber building. If the radiocarbon date from the buried soil can be taken to give a very rough *terminus post quem* date for the first phase of the tomb it would suggest this was constructed shortly before or during the life of the hall. The pottery shows that the later phases of the tomb were in use after the building was abandoned but the second phase could have been built during the life of the timber hall.

The following sequence is proposed for the building and the various phases of the tomb. It is suggested that the small passage tomb was built first. This opened to the north and has no obvious connection to the later alignment. The timber building was then constructed orientated on the tomb, which could have provided a foresight for an alignment on the sunrise. The second phase of the tomb then seems to have followed that alignment, so that it opened towards the sunrise, and the third phase continued and extended this alignment. It is likely that the building had been abandoned and demolished long before the third phase of the tomb was built.

This possible use of the first tomb as a foresight between the timber building and the sunrise, followed by the change of alignment of the tomb in its second phase indicates a relationship between the tomb and the building. Rather than the simple dichotomy of the timber building being for the living and the tomb for the dead, there seems to have been some dialogue between the two.

The alignment with the rising sun is about 80 degrees from OS grid north, and the relevant sunrise would have fallen in April, shortly after the equinox. This alignment of about 80 degrees would seem to have some significance. Figure 19 shows the Parc Cybi hall directly compared to the Llandygai II building and the similarity of their alignment is striking. Loveday (2012a) has identified a WSW-ENE alignment (between 67–84°) as potentially of significance over a long duration in prehistoric cultures; as seen in the large Mesolithic postholes excavated in the Stonehenge carpark, the Greater Stonehenge Cursus, many classic henges, and some stone circles. Two of the henges that Loveday considers are the henges at Llandygai and the duration of this alignment might be extended as the majority of the Early Medieval burials on this site were on the same alignment. It is highly unlikely that the burials followed the alignment of the henges, even if traces of their banks could still be seen, but they were possibly influenced by a solar alignment. Longley (2001) considered that the Llandygai burials and most Early Medieval burials in north-west Wales were aligned on the sunrise at Easter. As Easter is a movable feast this is not sunrise on a single day but on a range of days from March 21st to April 25th, giving a range of alignments within a fairly tight arc. The date of Easter is basically fixed by the first full moon after the spring equinox, with some complications. Ruggles (1999, 148-9, 150-1) considers that prehistoric societies would be unlikely to recognise the equinox as an event of significance and would probably have been unable to fix it with any degree of accuracy. The equinoxes are not marked as special by the rising and setting of the sun, unlike the solstices, when the daily progression of the sunrise and sunset along the horizon stops and then reverses. The solstices are relatively easily recorded by observing from a fixed point and noting a feature on the horizon that indicates the point at which the sun stops before reversing its progress. Loveday suggests that the solstices could be used with the lunar months to provide a timetable for prehistoric festivals that did not drift with the lunar cycle. Counting a set number of full moons from the winter solstice could provide a marker for a spring festival that would fall at about the same time as the Christian Easter but might be used by societies of very different traditions at different periods. The WSW-ENE alignments seen in many prehistoric monuments cover sunrises in April and then mid-August to mid-September or sunsets from early February to early March and then October. Loveday (2012a, 347) suggests that the April and October alignments might be the most significant, marking respectively the reawakening of nature or the start of winter. At Parc Cybi alignment refers to the sunrise and therefore it seems most likely that a spring festival was being marked by both the house and the later alignment of the tomb.

There is currently little evidence that the WSW-ENE alignment was of general importance to Early Neolithic timber buildings. Smyth (2014, 22-23) has considered orientation of these structures in Ireland and does not record one aligned WSW-ENE, although 21 are on a NE-SW alignment. In Scotland the structures at Claish and

36 95% probability, calibrated using OxCal 4.3; 5050±70 BP

Lockerbie Academy were close to north-south while that at Balbridie was almost exactly east-west (Barclay *et al* 2002, illustration 25; Kirby 2011). However, the building in Warren Field, Crathes, Aberdeenshire did have a WSW-ENE alignment, with the east-north-east emphasised (Murray *et al* 2009, 30). Darvill looked at buildings from England and Wales known in 1996 (Darvill 1996) and his figure 6.4 suggests that Structure A from Lismore Fields, Derbyshire and Structure 1 from Clegyr Boia, Pembrokeshire (Williams 1952) fall within this alignment range. Of more recently discovered buildings one found at Kingmead Quarry, Horton, Berkshire was aligned WSW-ENE (Chaffey and Brook 2012, 204) and one possible interpretation of the building at Yarnton, Oxfordshire would have been close to this alignment (Hey *et al* 2016, 55), but there is no suggestion that this was an important alignment for English structures.

A relationship between Neolithic buildings and tombs, as seen at Parc Cybi, is also rare. At a few sites Neolithic buildings have been found under tombs, most famously at Ballyglass, County Mayo (Ó Nualláin 1972) but also Gwernvale, Powys (Britnell and Savory 1984). There are other examples, such as Hazleton North (Saville 1990), where postholes have been found under tombs, though not certainly part of rectangular buildings. Buildings near tombs are just as rare. Remains interpreted as a possibly domestic settlement were found about 40m north of the tomb of Caravat Barp at Bharpa Carinish, North Uist, but this site was dated to the latter part of the 4th millennium (Crone *et al* 1993), later than the Early Neolithic rectangular timber buildings. The scarcity of Neolithic structures near tombs may partly be due to the scarcity of excavations near these monuments, as well as the destruction of tombs leaving no upstanding remains. Although Anglesey has many surviving tombs even more are mentioned in antiquarian accounts, showing that many have been destroyed (Smith 2003, 17-18). The scarcity of tombs on the mainland opposite Anglesey is notable and may be due to their destruction by improving landlords. Early Neolithic buildings are difficult to find except where extensive stripping of ploughsoil has taken place under archaeological control in advance of development. It may be that the coincidence of suitable archaeological investigation with a surviving tomb is sufficiently rare that this relationship is hardly ever noted.

If the alignment of the Parc Cybi building did mark a spring festival this could hint at its use during such a festival. The artefacts recovered were suggestive of normal domestic activity, though how such activity could be distinguished from seasonal feasting is not obvious. Lipid analysis may provide some evidence. Sherds of pottery from the Parc Cybi building were analysed for lipid residues and all samples, where lipids were preserved, proved to be of dairy fats (Dunne and Evershed vol 3, part I.3.1). Although dairy fat is common in Early Neolithic assemblages it is unusual for no traces of other fats to be found. This might suggest that dairy products were considered as the only appropriate food to be held by pottery vessels or it could mean that the building was used only at a time of year when young livestock had recently been born and milk was particularly plentiful. The latter suggestion would support the connection with a spring festival, but this interpretation should be used with some caution. Sherds sampled from the area of temporary occupation, roughly contemporary with the building but c. 490m away, also showed that vessels were only used for dairy products. This tradition may have been common to occupation and activity sites of other types in the Early Neolithic of Holy Island, and not unique to rectangular timber buildings. Sherds analysed from the building at Parc Bryn Cegin, Llandygai did show that while pots mainly contained dairy products some had been used for the processing or cooking of animal body fats (Dunne and Evershed vol 3, part I.3.2). The use of pottery only for dairy products does not therefore seem to be a tradition of other similar Early Neolithic buildings in the area. Pottery from the four Early Neolithic buildings from Llanfaethlu is being studied (Julie Dunne pers. comm.) and it will be interesting to see how these results compare.

Temporary settlement in the Early Neolithic

The understanding of Early Neolithic settlement has been dominated in recent years by the large rectangular timber buildings, but there is also wide-spread evidence for more mobile settlements. Smyth for Ireland (Smyth 2014) and Darvill for England and Wales (Darvill 1996) list Neolithic structures that were smaller and less regular than the large timber buildings. Many of these were probably Middle or Late Neolithic but some were Early Neolithic. In 1996 Barclay struggled to find Neolithic buildings in Scotland, outside the Northern Isles, (Barclay 1996), but in recent years, as well as many more timber halls, slighter structures have been found; Murray and Murray (2014, 57) list several in comparison to their site at Garthdee Road, Aberdeen. Again several are Middle or Later Neolithic in date but some are Early Neolithic. Garthdee Road itself was an oval structure of some size (11-12m long by 8m wide) (Murray and Murray 2014, 5), of Early Neolithic date, but of slighter, less formal construction than the timber halls. It was only 20km down the Dee Valley from the timber halls of Crathes and Balbridie, and was used at about the same time, but represents a different tradition of construction, and probably a different function for the building.

In Ireland reassessment of the well-known Neolithic houses at Lough Gur, County Limerick has suggested that some were Bronze Age, and those that were Neolithic probably dated to the Middle Neolithic, leaving the Early Neolithic activity to occur without any substantial structures (Smyth 2014, 71-78). This applies to much Early Neolithic occupation, across Britain and Ireland. Smyth (2012) highlights the number of pits found in Ireland with Early Neolithic artefacts that are found either with slight structures or in isolation. In England Early Neolithic occupation sites are also represented by pit groups represent (Anderson-Whymark 2012), and other Early Neolithic sites are represented by nothing more than artefact scatters.

Thomas (1999) has proposed a model of the Neolithic in Britain where mobile populations are envisaged moving through territories marked by the presence of large and permanent tombs, which formed a focus for the wanderings of the local population. This model was imagined before the rise in the number of rectangular buildings discovered in Ireland and Scotland, and to a lesser extent in England. However, it may still be of relevance. If the rectangular buildings, or timber halls, were primarily ordinary homes it would be expected that they would influence subsequent domestic architecture. Instead their influence seems to have been on ceremonial architecture, with domestic structures continuing as if the rectangular buildings had never existed. Possibly those buildings had a social, ceremonial or even political function rather than a purely domestic one. That does not mean that people did not live in these buildings for some of the time, but short-term settlements may have been the norm for most people, most of the time. Alternatively it is possible that the temporary sites were activity sites used by people who normally lived in the rectangular buildings.

In north-west Wales isolated pits, pit groups or pits with small structures dating to the Early Neolithic period are rarer than rectangular timber buildings; most pit clusters are associated with Middle or Late Neolithic pottery. A group of three pits at Clynnog, Gwynedd contained Early Neolithic pottery and produced Early Neolithic dates of 3710-3640 cal BC (NZA-34255) and 3780-3650 cal BC (NZA-34258³⁷) (Roberts 2009 and forthcoming). This area was repeatedly occupied throughout the Neolithic. A pit full of burnt stones, one of two found at Dolbenmaen, Gwynedd, and thought to be earth ovens, was dated to the very Early Neolithic (3970-3790 cal BC (SUERC-70635) and 3960-3710 cal BC (SUERC-70636)³⁸) (McNicol and Kenney 2017). These pits lacked any cultural material or charred cereal grains, so it is not possible to prove that the people using these pits could be culturally defined as Neolithic. A similarly early date (4050-3790 cal BC (Wk-9280)³⁹) was produced from one of a group of pits at Cefn Du, Anglesey, also with no datable artefacts (Cutler 2012, 7-9). At this site there were six pits and one posthole, all assumed to be contemporary though quite widely scattered. The pits fills were rich in charcoal and burnt stone, which is suggestive of them being earth ovens, and this site would seem to represent repeated short-term occupation of roughly the same area. At Parc Bryn Cegin, Llandygai, as well as the rectangular timber building three earth ovens and an isolated pit, were dated to the Early Neolithic. These features were scattered across the large site and not distributed close to the rectangular building (Kenney 2009, 27, 69). All the above features do suggest some scattered, temporary occupation in the Early Neolithic in north-west Wales.

The activity in Area E at Parc Cybi adds substantially to this evidence. The hollow was repeatedly visited during the Early Neolithic, as demonstrated by the quantity of Early Neolithic pottery, but the structures built were flimsy and hard to define as more than slight shelters. Two of the dates show that the occupation was contemporary with the use of the rectangular timber building, as far as can be defined by radiocarbon dating, but the activities carried out were presumably different. However the range of artefacts was similar and the pottery was much the same as in the building, but more fragmentary. In particular there seems to have been no difference in the way in which the pottery was used in this temporary occupation area compared with the timber building. In both cases lipid analysis showed that pottery was used solely for dairy products. Despite the difference in structures it appears that the same food was consumed and pottery was used despite the short term occupation.

The Early Neolithic activity in Area M adds to the pattern of use of the landscape at this period. Again short-lived occupation is suggested with possibly a slight structure. These features were less than 10m from the edge of a large hollow (19196), probably originally a natural marshy hollow or pond. The activity in Area E also overlooked a small valley with a wet and marshy bottom that ran into the valley mire in Area G. Possibly both settlements were related to the utilisation of products of these marshy areas and represent specific task sites within the wider landscape.

It was probably chance that Area M was later used for Bronze Age ceremonial monuments but the use of the

37 NZA-34255: 4914 ± 20 BP, NZA-34258: 4946 ± 20 BP
 38 SUERC-70635: 5083 ± 33BP, SUERC-70636: 5042 ± 33BP
 39 Wk-9280: 5169 ± 57BP

hollow in Area E in the Beaker period seems to represent a continuation of its earlier use. There was much less Beaker pottery than Early Neolithic but no evidence that the character of the occupation was any different. The scatter of Beaker pottery can be compared to that under the Brenig 51 barrow (Lynch 1993, 102-105, 157). Here there was much more pottery than at Parc Cybi as 104 pieces were found, though 62 of these were crumbs, with 21 decorated sherds. The sherds were found in a patch of “occupation soil” with no associated features. A small flint assemblage was also found. A radiocarbon date on charcoal from the occupation layer of 2020-1640 (HAR-803⁴⁰) (Lynch 1993, 216) was later than the Beaker date from the hollow in Area E, and indeed late for Beaker pottery. However, this is comparing two single dates and neither may give a full indication of the range of activity during the Beaker period on these sites.

The interpretation of pit groups

By Jane Kenney and Frances Lynch

The evidence for mobile settlements is even stronger for the later Neolithic when there is little evidence for sedentary occupation. Peterson (1999, 200) has described Late Neolithic occupation in Wales as very small scale and highly mobile, and all the evidence from Parc Cybi supports that view. Occupation in this period is often indicated by groups of pits such as PRN 31572 in Area I and PRN 31573 in Area K9.

Small, bowl-shaped pits filled with pottery, tool-making waste, the debris of fires and food waste such as charred hazelnut shells and burnt bone fragments are common finds dating to throughout the Neolithic period. From their initial interpretation as storage pits, a purpose for which they are generally too small, they began to be seen as largely ritual and the receptacles for structured deposition (Thomas 1999, 87). Although some do contain special items, and carefully selected and positioned material, most of the material appears to represent domestic waste. In 1973 Humphrey Case (Case 1973) suggested that domestic waste buried in pits at Goodland Townland, Co. Antrim represented the use of midden material in a ritualistic manner. The domestic waste in Neolithic pits is now generally seen as coming from middens and the pits are considered as being closely related to settlement. It is often suggested that the pits were dug, and the valuable midden deposits buried, to mark the end of a settlement phase, or other events in the life of the settlement or its occupants (Thomas 2012, Pollard 2001). The pits are therefore currently seen as neither “wholly ceremonial nor completely mundane” (Brophy and Noble 2012, 63). It does still appear that this particular depositional activity was largely restricted to the Neolithic period, as identified by Thomas (1999, 74), becoming rare in the Beaker and Early Bronze Age periods and non-existent later in the Bronze Age.

This raises questions about the management of waste around Middle and Late Neolithic settlements, made more difficult by the scarcity of surviving traces of structures. One site where there are typical ‘pot pits’ and some reasonably convincing contemporary structures is Sewerby Cottage Farm near Bridlington, Yorkshire, where at least three episodes of settlement over about 500 years are recorded (Fenton-Thomas 2009). Over this time there were some quite substantial rectangular and, later, oval structures with some rubbish deposits at one end of the site, and at the other distinct clusters of pits containing Ebbsfleet Ware, Mortlake Ware, and Grooved Ware. In this case the pottery in the pits was less abraded than that in the rubbish deposits and these deposits seemed to be associated with the structures and to be unassociated with the pit clusters. The deposits were even suggested as being incidental accumulations of rubbish rather than deliberate middens (Fenton-Thomas 2009, 88-89). The dislocation between the rubbish deposits and the pit clusters on this site may be due to the middens specifically related to the pit clusters having not survived, as is the case on most of these sites.

At Yarnton in Oxfordshire there was also an area of buried soil with a dense find distribution, which was interpreted as a series of middens dating from throughout the Neolithic period. In this case it was suggested that these middens could have been the source of material that filled pits a considerable distance away, as the size range of sherds was similar in both deposits (Hey *et al* 2016, 68).

The site of Kilverstone, Norfolk (Garrow *et al* 2005) with a large number of pit clusters carefully excavated and thoroughly analysed has proved influential in interpreting these features. None of the pits had evidence for any use prior to backfilling with deposits containing domestic rubbish, and the pit sides were uneroded, despite being dug in sandy soils. The artefacts were dumped within a soil matrix rather than being placed, with varying amounts of material in different pits. Pits within a cluster were often linked by containing parts of the same pot or parts of a flint working sequence, but these links were not found between pit clusters, suggesting that each cluster was filled from a separate midden or holding deposit. The pit clusters were assumed to be closely associated with settlement. Each cluster was considered too small to have been dug around a structure, however their presence

40 3500 ± 70 BP (HAR-803) recalibrated

inside a structure does not seem to have been considered. The sequence of find deposition suggests that the pits were dug during the life of the settlements and not just at the end. The settlement activity was seen as representing repeated small scale settlement in generally the same area but temporarily and spatially separated (Garrow *et al* 2005, 152, 153, 156).

The interpretation of pit fills as coming from middens suggests that it was common in the later Neolithic period for domestic waste to be collected on the surface, presumably mainly to fertilise fields but also for other purposes, yet these middens are almost never found; a major class of archaeological feature currently largely absent from the record. One of the few sites where middens directly related to pit groups have survived is White Horse Stone, Kent. Most of the pit clusters on this site had a midden nearby preserved in a tree throw or natural hollow from destruction by ploughing (Garwood 2011, 103).

The origin of the pit fills from middens has not gone unchallenged. Becket and MacGregor (2012) wonder where the mineral component in pit fills came from, since an organic-rich midden would have a low mineral component, yet if a layer of midden was covered by mineral material dug from the pit much clearer layering would be expected. Loveday (2012b) suggests some, at least, of the pits might have been ovens, dryers or smokers with a turf superstructure, which collapsed into the pit, so introducing finds contained in the turf from earlier occupation. This might explain the near perfectly circular shape of many pits but would suggest that the material in the pit does not relate in any way to the digging of the pit. However, such sherds would all be very worn and trampled and joins would be very rare, so where sherds are fairly fresh and joins between sherds exist, this would argue against an origin from a previous occupation.

The function of the pits before they were filled is currently disputed. Some certainly appear to be hearth pits with intact layers, but most have homogenous fills and many authors argue for the pits being dug specifically to hold the midden deposits as a ceremonial act. The regular forms and frequent lack of erosion of the pit sides are suggested as supporting this view (Pollard 2001, 325). This may relate to the fertilising power of midden material and have been a sacrifice to bring fertility more generally or an offering to a deity (Case 1973). Alternatively it has been suggested that the deposits memorialise the site of the settlement and most authors suggest that burying midden deposits marks the end of a settlement, rather than something being done during the life of the settlement. Garwood argues that the pits would have had a practical function inside buildings, possibly to hold pots or basket linings, before backfilling. However, he does allow that the final backfilling of the pits may have had a ritual element to mark the end of the settlement or other significant event (Garwood 2011, 118).

At Parc Cybi linkages between pot sherds, especially from the pit group in Area K9, suggest that the pits were filled in at the same time or that they were filled in from the same midden deposit. This interpretation suggests that the pottery content should not be considered as deliberately selected. This view is strongly supported by a study of the 20 pits which contain Mortlake pottery at two recently excavated sites, at Llanfaethlu only 9km away on the north coast of Anglesey (Rees and Jones 2017a), and at Brookside, Denbigh (Rees and Jones 2017b). However the pattern of deposition in the various chronologically distinct pit clusters at Parc Bryn Cegin near Bangor suggested more deliberation in the placing of pottery in the pits there (Lynch in Kenney 2008).

While most artefacts in pit groups seem to be incidental, and indicative of the presence of midden deposits, some special items are found that can be considered as structured deposition (Thomas 1999, 65). In Ireland stone balls and stone axe heads are sometimes found in this context, though generally from the Early rather than later Neolithic (Smyth 2012, 17-18). Stone axes are found in later Neolithic pit clusters in England with 6 axes from one pit at Clifton, Worcestershire (Jackson and Ray 2012, 155-156). The stone macehead in the pit cluster in Area I at Parc Cybi would appear to be part of this tradition and can be interpreted as a deliberate deposit.

The origin of material in pit fills from middens, possibly of considerable age, raises concerns about dating pit clusters and the pottery they contain. In many cases where multiple dates are obtained, as in the Area I pit cluster at Parc Cybi, the similarity of the dates suggests that the midden was fairly short lived and of a single phase. The general presence of one pottery type per pit cluster, and frequent joins of pot sherds between pits, also indicates short lived middens closely associated with a single phase of settlement. However, this does not always apply, with some pit clusters having more than one pottery type, including in some cases both Peterborough Ware and Grooved Ware, such as at Cefn Du (Cuttler 2012, 9-10), and other artefacts and disparate radiocarbon dates indicating some very long lived middens (Thomas 2012). Single dates from pit clusters might therefore not represent the date of the pottery or other artefacts from the pits, especially deliberately included special items that were presumably added during pit filling and may not have come from the midden at all. The situation might be

further complicated if very old middens or previous occupation deposits are the source of most of the material.

The probable presence of middens nearby suggests that the pits were within or very close to settlements and the presence of hearths and occasional postholes on some sites does imply structures of some sort near to or around pits (Brophy and Noble 2012). There are also indications that some pit clusters were associated with structures that did not have earth-fast elements, and so are not seen archaeologically. The site at Mynydd Mwyn Farm, Penmynydd, Anglesey (Davidson *et al* 2010) had fire pits and postholes suggesting the presence of a structure that was not clearly archaeologically visible. At Kingsmead Quarry, Horton, Berkshire a pit cluster was found some distance from a classic Early Neolithic rectangular timber building. The pit cluster was also Early Neolithic but probably dated to slightly later than the rectangular building. The pits defined a blank rectangular area described by the excavators as a “house void”, suggesting a space for a structure with no earth-fast posts or foundations (Chaffey and Brook 2012, 204). A group of Late Neolithic features at Yarnton, Oxfordshire were interpreted as defining a structure (structure 4291) (Hey *et al* 2016, 62-63), but as many of these features were pits, rather than postholes, this may also be a case where pits indicate the presence of a building from which few structural elements survive. The association of pits at Parc Cybi in Area D3 with a hearth very similar to those excavated at Trelystan, Powys (Britnell 1982) suggests that they were inside a similar stake-walled structure. The Trelystan structures were preserved under a barrow, resulting in the preservation of the stake-wall, which would otherwise have been lost.

At White Horse Stone, Kent one pit cluster had two phases of small circular post and stake-built structures. The layout of other pit clusters suggested to Garwood (2011, 110-113) that these were also closely associated with structures. He argues that the lack of erosion on the pit sides may indicate that they were open but inside the structures, and suggests reconstruction of the structures with roofs extending over the pits. It seems probable that pit clusters represent the location of small dwellings. The similarity of pit clusters and their contents throughout the Neolithic and into the Early Bronze Age across Britain and Ireland (Anderson-Whymark and Thomas 2012), suggests a large number of these small dwellings, usually archaeologically largely invisible apart from the accompanying pits.

At Parc Cybi it seems very likely that the hearth and pits in Area D represent the remains of a small structure. Additionally, using Garwood’s interpretation of pit clusters at White Horse Stone, the pit clusters in Areas I and K9 could be claimed as pits associated with small structures. Garwood (2011, 102, 113) notes short arcs of closely spaced pits in the White Horse Stone pit groups and these would fit neatly within small sub-circular structures, possibly giving a rough indication of their size. A similar arc of pits was found at Parc Bryn Cegin, Llandygai (Pit Group II) (Kenney 2009, 35) and this was associated with an opposing arc of small post or stakeholes, possibly representing a trace of a wall. At Parc Cybi the Area K9 pit group (PRN 31573) had two such arcs of pits and it is suggested that these may represent two successive, slightly offset structures. The scarcity of finds in the northern arc of pits makes this appear different to other pit clusters, but the range of the few finds from pit 80610 in this group is similar to the other pits. A connection between the two arcs of pits is shown by sherds from one pot being found in pits in both arcs. If these pits were being filled from a midden this suggests that the same midden was being used, though less midden material was included in the northern pits. The curve of the arcs of pits suggests that a circular structure of 5m would enclose them, though the actual structures could have been bigger (figure 27).

Pit group PRN 31572 in Area I also had an arc of three closely spaced pits, which could perhaps be interpreted as marking a structure of a similar size. However there were several other pits and it is unclear if these can be interpreted as marking many separate structures or whether they were part of the same period of activity. If several phases are represented, the radiocarbon dates cannot distinguish between these.

In contrast to these proposed structures, argued to be circular, the well-defined small structure found under the Iron Age roundhouse settlement in Area B2 was rectangular. This was defined by fairly substantial postholes and associated with what appeared to be an external hearth and many pits and other postholes. This structure was associated with dates of about 2480 to 2200 cal BC, which might be considered to place it in the Beaker period dates. However, the use of Grooved Ware continued into this period (see above), and the presence of Grooved Ware sherds in the area may suggest that the cultural associations of this small settlement were Late Neolithic.

It might be speculated that the single, isolated pits in Area I represent very short-lived occupation by a small group, perhaps one family for one night, and the larger pit group indicates a slightly larger settlement or one occupied for a longer time. However, none of the sites suggests more than short-term use. Although the pits with Mortlake Ware and Fengate Ware have indistinguishable dates the broad range on the dates means that they were very unlikely to

be occupied at exactly the same time. Density of occupation within the area of Parc Cybi was therefore very low. Over a wider area occupation may still have been widely dispersed but possibly more continuous. The discovery of a pit with Fengate Ware to the east of Parc Cybi (Wessex Archaeology 2015) suggests that these might be quite commonly found across the wider area. This inspires an image of a group with their traditional range, through which they moved either with the seasons or moving house every year or so. The presence of both Mortlake and Fengate pottery raises the possibility that different groups may have had overlapping ranges, though it is possible that different pottery styles were appropriate to activities at different times of year or by different sections of the same group. The Peterborough Ware using group may have been interring at least some of their dead in the Trefignath tomb but it is unlikely that those using Grooved Ware were, as the tomb was probably closed by then. However, the tomb may still have been a fixed focal point in a mobile landscape.

Bronze Age

Settlement

In 1970 Lynch (1970, 114) noted the absence of excavated Bronze Age houses on Anglesey and the situation has not changed much since, despite an increase in excavations in recent years. The same scarcity of Bronze Age houses applies to the rest of north-west Wales and, indeed, to much of the rest of Wales. The quantity of barrows, cairns and burnt mounds found across Wales suggests that the scarcity of houses is due to the difficulty in recognising their remains, rather than to a small population. One of the few dated sites with Bronze Age houses in north-west Wales, Meyllteyrn Uchaf, Botwnnog, had clay-walled roundhouses with some surviving internal features allowing their identification (Ward and Smith 2001, 14-38), but such evidence could be easily lost. Alternatively houses could have been built of timber, turf or other materials with no earthfast elements that might be detected by archaeology. Settlements tend to be represented by occasional pits, hearths and sometime the postholes of structures such as granaries, but to lack houses. At Coed Dolwyd in the Conwy Valley pits grouped around a hearth were dated to the Bronze Age by radiocarbon dates and pottery (Davidson 2015). A similar occupation site was found at Parc Bryn Cegin, Llandygai where five small pits were grouped around an area of burning (Pit Group VII, PRN 31756). These produced no diagnostic artefacts but were dated to the Bronze Age by radiocarbon dating (Kenney 2009, 36, 43). On Anglesey excavations at Newborough (Evans *et al* 2017, Evans and Roberts 2018) recently revealed granaries, pits and earth ovens, dated to the Bronze Age by radiocarbon dates and pottery, but with no evidence of a house was found. It is argued above that despite few radiocarbon dates and only a small number of Bronze Age sherds that the features in Area J at Parc Cybi indicate Bronze Age settlement of a similar type. The presence of what appear to be granaries suggests a permanent settlement, despite the absence of surviving remains of a house. The date of the timber roundhouse in Area K is also uncertain, though it has been argued, from the similarity to the house found at Glanfeinion, near Llandinam, Powys (Britnell *et al* 1997), that a Bronze Age date is most likely. Parc Cybi therefore contributes to an understanding of these elusive Bronze Age settlements.

Table 13. Bronze Age radiocarbon dates from Meyllteyrn Uchaf (Ward and Smith 2001, 35)
(Dates recalibrated for consistency using Oxcal v4.3 (Bronk Ramsey 2009))

Context description	Lab No.	Date BP	Calibrated date at 95% probability
Burnt stone spread (528) over house C	CAR-1288	3000 ± 70	1420-1030 cal BC
Burnt stone spread (211) over house C	CAR-1361	2950 ± 70	1390-940 cal BC
Burnt stone spread (229) adjoining hearth 514, house A	CAR-1360	2910 ± 70	1370-910 cal BC
Burnt stone spread (135) over house A	CAR-1364	2830 ± 70	1210-830 cal BC

Where dates have been obtained at Parc Cybi the Bronze Age activity appears to have been spread over a fairly wide timescale. The dates from pit 70054 in Area J (1450–1300 cal BC (SUERC-81339) and 1400–1210 cal BC (SUERC-83269)) are quite similar to the dates from Meyllteyrn Uchaf (table 13), although the size of the errors on the latter means that they have a much larger range and the pit 70054 dates fall at the start of this range. Some of the activity in Area J at Parc Cybi could have been roughly contemporary with Meyllteyrn Uchaf, though it is unfortunate that it was not possible to date the structures in Area J and be more confident about the date of the main settlement activity.

The dates from one of the outlying posthole groups (PRN 31581) in Area J (1890–1690 cal BC (SUERC-81340))

and 2020–1770 cal BC (SUERC-83270)) are more similar to the Coed Dolwyd dates (1920-1740 cal BC⁴¹, 1940-1750 cal BC⁴², and 1910-1700 cal BC⁴³). This small area of activity might be compared to the small, though rather more spread-out, area of activity at Coed Dolwyd. The dates from the pits at Parc Bryn Cegin, Llandygai are also similar (1890-1690 cal BC⁴⁴, 1980-1770 cal BC⁴⁵, 1890-1690 cal BC⁴⁶ and 1750-1610 cal BC) (Marshall *et al* 2008, 197). The dates from pit 20081 in Area K at Parc Cybi, containing sherds of a cordoned urn and possibly connected to use of the timber roundhouse (1630-1500 cal BC (SUERC-81368) and 1610-1430 cal BC (SUERC-83295)) fall between the two other dated areas of activity. At Parc Cybi, therefore, occupation occurred throughout the first half of the Bronze Age in different locations but all concentrating on east and north facing slopes, a considerable distance from the Bronze Age ceremonial monuments.

Beyond Parc Cybi Bronze Age settlement on Holy Island is indicated not only by burnt mounds (discussed below) but also Bronze Age pottery from within a probable roundhouse (PRN 34737) investigated by evaluation trenching west of Holyhead Leisure Centre ((Kenney 2012b, 9, Wessex Archaeology 2015, appendix 5, p15). This was only about 800m from the western boundary of Parc Cybi and suggests that Bronze Age settlement might have been more widely spread in the immediate area. Two sherds of Beaker pottery from Cae Glas immediately east of Parc Cybi also hints at Beaker or Early Bronze Age activity, though these sherds were not associated with any features (Wessex Archaeology 2015, 10).

Burnt Mounds and Earth Ovens

The Function of Burnt Mounds

Burnt mounds are a very common site-type in Ireland and much of Britain, including North Wales. Their function has not been definitively proved and their relationship to settlement is still obscure, so there is little doubt that this common site-type still has much to reveal. However, they have been found on numerous developer-funded excavations in North Wales over recent years so their dating in Wales is becoming much better known (Kenney 2012a).

Classic burnt mounds are defined with their deep troughs and fire sites covered or surrounded by an often crescentic mound of heat-shattered burnt stone. Many sites fit this description but there are also variations that might still be considered as burnt mound sites. Pits of a type similar to those under burnt mounds are also found in isolation, either because the mound has eroded away or because one never existed. Some of the pits found on burnt mound sites were probably not used as troughs to hold water but may have had a variety of functions, including use as ovens.

For the typical burnt mound it is generally accepted that stones were heated in a hearth and then transferred to a water-filled trough to heat the water. The stones were discarded to form the mound once they had shattered into pieces too small to be used. It is the purpose to which the heated water was put that is contentious. Any explanation must account for specific features of these sites. The trough, dug with some effort, often carefully lined and centrally placed, was a principal part of the site's function, not incidental. The size of the mounds suggests that the water in the trough was raised to boiling point and kept boiling for some considerable time. None of the ethnographic examples of bathing and saunas listed by Barfield and Hodder (1987) required such a trough, especially when there was often a stream nearby. Various industrial uses have been suggested, but these would have to require boiling water to account for the quantity of burnt stones actually found. Hawkes, while not ruling out occasional use for these tasks, expresses doubt about evidence for leather-working, dying, fulling and horn-core processing at burnt mounds in Ireland (Hawkes 2018, 177-178). However, the discovery of plant macrofossils, pollen, and insect remains suggestive of the presence of plants associated with dying, such as the weevil of the oak gall and alder catkins, has suggested to Brown *et al* (2016, 285) that dying may have been a major use of the troughs. Metalworking has been found on some burnt mound sites in Ireland, but this is all later reuse (Hawkes 20148, 177), and there is no convincing evidence for metalworking on burnt mounds in Wales (Kenney 2012a), despite White (1977) interpreting burnt mounds on Anglesey as copper smelting sites.

Experiments with beer making in troughs (Pitts 2010, Quinn and Moore 2008) show that this also produces the

- | | |
|----|---------------------------|
| 41 | 3501 ± 31 BP, SUERC-55141 |
| 42 | 3526 ± 31 BP, SUERC-55145 |
| 43 | 3495 ± 31 BP, SUERC-55147 |
| 44 | NZA-26682: 3474 ± 30 BP |
| 45 | NZA-26690: 3552 ± 30 BP |
| 46 | KIA-30441: 3476 ± 28 BP |

type of deposits recorded on burnt mound sites, but this use has been questioned due to the scarcity of cereal remains (Hawkes 2018, 179, Brown *et al* 2016, 285-6). The preservation of grain and chaff in waterlogged troughs and as charred remains should be a common occurrence if this was a general use of burnt mounds, but these finds are very rare. Occasionally a small number of charred cereal remains are found on burnt mounds in Wales (Kenney 2012a), and 18 quern stones have been found on excavated sites in Ireland (Hawkes 2018, 179), including a saddle quern was found inside a trough in Co. Waterford (Hegarty 2005), but these cannot be shown to be directly related to processing cereals for beer.

The interpretation of burnt mounds as cooking places comes originally from Ireland, where they have traditionally been called *fulachta fiadh* or *fulachta fian* (cooking places of the wild/of the deer and cooking places of the roving hunters/warriors or Fianna respectively) (O’Kelly 1954). Although the evidence must be used with care (Ó Drisceoil 1990) some of the Irish tales, although written down between the 10th and 17th centuries, contain detail that corresponds very closely with excavated Bronze Age examples. These refer to both cooking and bathing in troughs (Ó Drisceoil 1990), the bathing sometimes following the cooking.

Numerous experiments into the use of burnt mounds (O’Kelly 1954; James 1986; Ó Drisceoil 1988; Allen 1994) have demonstrated that this was an effective way of cooking meat and that the process produces exactly the sort and quantity of burnt stone debris found on the archaeological mounds. The main argument against the cooking of meat is the almost total lack of bones from many sites. However, 263 sites in Ireland have produced bone, most of which is either poorly preserved or burnt due to the acid conditions in which burnt mounds are found. Those on limestone have much better bone preservation (Hawkes 2018 156-157), for example 10 burnt mounds along the Carlow Bypass, where animals seemed to have been slaughtered and butchered on site (Tourunen 2007). A cattle tooth from Bryn Cefni, Llangefni (Smith and Kenney 2002), and burnt bone from Graeanog (Kelly 1993), hint at the possibility of bone survival on Welsh sites. Both burnt and unburnt bone was found at Nant Farm, Porth Neigwl, but this apparently came from a later deposit that had got mixed into the mound (Smith *et al* 2017, 30).

After studying 1165 excavated burnt mounds from Ireland Hawkes (2018, 156-170, 180-181) supports the interpretation that one of their main uses was for cooking, particularly for feasting events, but not for everyday cooking, as burnt mounds are very rarely found within settlements.

Dating Burnt Mounds

While burnt mounds are typically considered to be Bronze Age features, (Brindley *et al* 1990) their use is being shown to have started much earlier. In Ireland five sites can be positively dated to the earlier Neolithic (c. 4000-3000 BC) and 24 can be dated to the later Neolithic (3000-2500 BC), while other sites have produced Neolithic artefacts (Hawkes 2018, 121-123). In north-west Wales burnt mounds were in common use by 2500 BC (Kenney 2012a) with some starting earlier. There are start dates for the use of mounds near Criccieth of 2800–2670 cal BC (68% probability) and 2715–2510 cal BC (68% probability) (Kenney *et al* 2014), and one mound from Parc Bryn Cegin, Llandygai with dates of 3490-3120 cal BC (KIA-30449) and 3340-3020 cal BC (KIA-30450) (Kenney 2009). The Parc Cybi mounds are earlier than the classic Bronze Age date but not unusual for the region.

The two dates were obtained from the small mound at Parc Cybi (2870-2580 cal BC (SUERC-81353) and 2890-2670 cal BC (SUERC-83279)) place it in the Late Neolithic period. The larger mound also probably started in use at the end of the Neolithic period (2525–2245 cal BC (68% probability)), but was repeatedly used through the Beaker period until probably 2005–1765 cal BC (68% probability). It was probably in use over 330–770 years (68% probability), which is a long duration but at Parc Bryn Cegin, Llandygai one large burnt mound was in use for 80-260 years (68% probability) and other mounds in the immediate area extended to use of the area up to 1500 years (Kenney 2009, 62). A large burnt mound at Pentrefelin near Criccieth was used probably for 525-790 years (68% probability) (Hamilton 2013, 318). In both cases use was probably punctuated rather than continuous and the same almost certainly applies to the large mound at Parc Cybi. The depth of the mound suggests that the troughs were repeatedly reused over a long period and the three phases of digging and backfilling in well 31303 probably indicate long pauses and recurrence of use. Such long durations of use were probably normal for large burnt mounds and this shows how inadequate one or two radiocarbon dates are for investigating duration of use and phases of reuse.

Earth ovens

Hawkes (2018, fig 6.8) provides a useful diagram summarising the type of cooking using hot stones that might occur in pits and troughs on burnt mounds. This includes baking, steaming and roasting as well as boiling. He

suggests that baking and steaming might occur in pits containing hot stones and covered with earth. Such ‘earth ovens’ while being found on burnt mounds can also be found isolated from mounds and troughs and indeed from any settlement evidence. While burnt mounds are widely discussed, the term ‘earth oven’ is less often used in British archaeology, although earth ovens dating from the Neolithic were identified at Clacton, Essex (Hedges 1980, 27). Earth ovens can be difficult to distinguish from other features filled with burnt stone, but often, though not always, have a clay lining and traces of the earth or turf covering. At Parc Bryn Cegin, Llandygai, near Bangor (Kenney 2009) several pits were identified as earth ovens due to being deliberate, neatly dug pits filled with burnt stone, often lined with clay and in well-preserved examples there were hints that the pit had been sealed with clay. Generally there was evidence of *in situ* burning in the pit but where this was lacking it might indicate that stones were heated on a fire outside the pit. The interpretation of these features as ovens is based on anthropological and ethnographic parallels (Hurl 1990, Campling 1991).

Several such features were found scattered over Parc Cybi, though none had clear linings or traces of sealing deposits. They did have burnt stone and were generally small. Like those at Parc Bryn Cegin these features were quite isolated from other contemporary features.

At Parc Bryn Cegin the earth ovens were dated and belonged to two periods; the Early Neolithic and the Bronze Age. Six pits containing burnt stone and charcoal that might be interpreted as earth ovens were excavated at Cefn Du, Gaerwen (Cutler 2012, 7-9). These all in the northern part of the site but quite widely separated, at least 10m apart. One pit produced a very Early Neolithic date (4220-3790 cal BC (Wk9280))⁴⁷. Two similar pits with burnt stone were found at Dolbenmaen, Gwynedd, one of which was also dated to the very Early Neolithic (3970-3790 cal BC (SUERC-70635) and 3960-3710 cal BC (SUERC-70636)⁴⁸) (McNicol and Kenney 2017).

No dates were obtained from the Parc Cybi examples but pit 31306 contained Middle Bronze Age pottery and the nearby pit (31513) had a fragment of similar pottery, so some of these ovens appear to be Bronze Age. Pit 40076 contained fragments of Early Neolithic pottery, and while this may have been residual, it could indicate that the Early Neolithic and the Bronze Age were also the periods of use of earth ovens at Parc Cybi. If these were small ovens for everyday cooking this would be unlikely to take place far from contemporary settlement and these might be the only surviving evidence for ephemeral settlements with very slight structures, the traces of which would not survive. These small and isolated features at Parc Cybi might be indications of temporary settlements that fit into the wider use of the landscape.

Location

Access to water seems to be the main factor in the location of the mounds, so they are generally located on the margins of water-logged areas or near to a stream or other water source. In this respect the larger burnt mound at Parc Cybi (PRN 31582) is unusual, although mounds have been found elsewhere at a significant distance from open water, where groundwater is close to the surface (e.g. Parc Bryn Cegin, Llandygai (Kenney 2009)). The Parc Cybi mound was about 140m from the nearest open water source, though there was a marshy area about 40m away that may possibly have been a pond in the past and the mound was situated on the edge of a small waterlogged valley (figure 149). The most unusual feature of this burnt mound is the large pit (31303). This was dug down to reach a layer of sands and gravels that might have carried water when the water table was higher. The number of land drains and culverts across the site show that the area had been heavily drained from the 19th century onwards, so it is unsurprising that the water table is now lower than it was in the Bronze Age. It is assumed that the pit acted as a well, allowing water to be obtained adjacent to the troughs. However the pit was backfilled with burnt stone, so its use as a well seems to have had a limited duration. The pit was recut at fairly widely spaced intervals. The middle phase of recut (31415) certainly got down to the water table again as this is where considerable collapse of the sides occurred due to being undermined by water. The upper recut (31414) may possibly have been a trough rather than a recut of the well, which raises the question where the water came from for its use. However if it was used in winter the water table may have been high enough for it to fill from groundwater.

This is the first example of a well on a burnt mound found in Wales but some 65 features excavated on burnt mounds in Ireland have been interpreted as wells (Hawkes 2018, 90). Many of these are large, rather irregular pits located close to troughs under burnt mounds and very similar to feature 31303.

Groundwater could presumably have been obtained by a shallow well at various locations, so access to water alone did not determine the location of the mound. The proximity of burnt mounds to settlements has rarely been demonstrated, though it can perhaps be assumed, though scarcity of finds on burnt mounds suggests that proximity

47 Wk9280 5169 ± 57BP

48 SUERC-70635: 5083 ± 33BP, SUERC-70636: 5042 ± 33BP

was not very close. (Hawkes 2018, 191-4) suggests that burnt mounds cluster in wet areas around Bronze Age settlement sites, usually “a comfortable walking distance” away (Hawkes 2018, 195). Cereal pollen was recorded from a Bronze Age horizon in a pollen core adjacent to a burnt mound at Pentrefelin, Criccieth (Grant 2014, 14). Cereal pollen does not travel far so this indicates the proximity of arable fields, although it was not possible to precisely tie this chronologically with the burnt mound activity. Cereal pollen from a mound at Felin Fulbrook, Ceredigion also suggested close proximity to arable land (Williams *et al* 1987).

At Parc Cybi there was possible Bronze Age settlement activity in Areas K1 and J (PRN 31588, 31576-31581) with dates ranging from the 19th to 12th centuries BC, but the large burnt mound was not Bronze Age in date but Beaker period and the small mound was Late Neolithic (see above). The only Beaker period settlement activity was found in the hollow in Area E, where repeated temporary occupation had taken place in the Early Neolithic and again in the Beaker period (PRN 18406). This was only about 30m from the burnt mound (figure 149), and one date from this area (2300-2050 cal BC (SUERC-83277)) falls within the date range for the later use of the mound. The Beaker activity in the hollow was only represented by a few small sherds compared to a large number of Early Neolithic sherds. The radiocarbon date comes from a pit (31509) that also contained a thumbnail scraper (sf4560), which was probably also related to the later activity, and suggests that some of the features in this area belonged to the Beaker period rather than the earlier activity. However this is far from being a settlement site, as it has no evidence of more than very small and temporary structures. It seems likely that the main settlement site associated with the burnt mound must be sought elsewhere but that while the mound was being used some activity was also being carried out in the hollow and unlike most burnt mound activity that involved pottery. It is also possible that, while roughly contemporary, the hollow and the burnt mound were used at completely different times and have no real relationship to each other. However the people using the hollow would have been well aware of the proximity of the burnt mound, as it would have formed a prominent monument in the landscape.

The smaller burnt mound (PRN 31583) was actually within the hollow and adjacent to the main area of activity (figure 20) but its use fell between the other periods of activity in the hollow. The date of this burnt mound is very similar to dates (2860–2570 cal BC (SUERC-81357), 2870–2570 cal BC (SUERC-83286)) from the pits containing Grooved Ware pottery in Area D (PRN 31574). These pits with a small hearth do seem to indicate small scale occupation site and lie about 120m north-west of the burnt mound. This seems to demonstrate that even small early burnt mounds were quite separate from occupation sites, even when in a location, demonstrated by use in other periods, to be highly suitable of occupation. The scale of this trough and mound are much more suitable for everyday cooking than the larger classic burnt mounds, so it is not clear why this was not close to a contemporary occupation site. The separation of burnt mounds from settlements may not have been purely due to practical considerations of water supply. The burnt mounds at Parc Bryn Cegin (Kenney 2009), located in a dryland area suitable for settlement but with no contemporary settlement nearby, also suggest this.

It is suggested that the two sub-rectangular pits (03078 and 03082) (PRN 31587) found in Area L containing burnt stone, but with no trace of a mound, do represent another burnt mound in this area, but that here the mound itself had been lost. They were located on the edge of the unexcavated area preserved around the standing stone and it is possible that parts of a burnt mound survive under there. There was no evidence to date these features. It is possible that there was other contemporary activity near these features as the stone-filled ditch or gully and posthole just to the north of them might have been structural, but again any evidence to demonstrate what these were is hidden under the baulk.

Burnt mounds on Holy Island

See figure 2

It is likely that burnt mounds were common on Holy Island but their existence has only been discovered in recent years. All known examples have been found through excavation, and many more are probably concealed under the soil, having been levelled by ploughing. Several burnt mounds were found along the route of the A55 but Maynard admits that some of these were not discovered and recorded in ideal circumstances (Maynard 2012, 122). The three found closest to Parc Cybi (Cae Glas 1, 2 and 3, PRN 31804-31806) were included in the ones that did not get careful excavation. They are described as small areas of burnt stone and Cae Glas 3 is said to have originated from a pit but it is not clear if the pit was seen and recorded. These three sites were to the east, and downslope, of Parc Cybi, in an area that must always have been wet. Other patches of burnt stone were exposed when digging drainage ditches for a site compound just over the Four Mile Bridge near Valley (PRN 31807 and 31808), and a thin spread of stone was seen on the edge of the road scheme in this area (PRN 31810). There was also a mound unaffected by the works recorded here that appeared likely to be a burnt mound (PRN 31809) (Maynard 2012, 123).

Burnt mound material (PRN 65534) was seen during a watching brief on a water pipe trench near the Cwm reservoir at the foot of Holyhead Mountain. The burnt mound seemed to be about 20m long and the trenching clipped its edge (Oattes 2016, section 5.3.1.2). A probable burnt mound with a stone-lined trough was excavated at Capel Gorlas (PRN 74531) (Davidson and Hopewell 2003). The sub-rectangular pit was sealed under and filled by a layer of burnt mound material. It had two side slabs, and part of one side was formed by a natural boulder but the rest of the trough was lined with clay. What appeared to be a stone-capped drain ran from next to the trough but it may have been much later and not related to the burnt mound.

Two burnt mounds (PRN 34742 and 34743) were found in evaluation trenching just east of Parc Cybi, in an area known as Cae Glas. Radiocarbon dates showed that both were Bronze Age in date (PRN 34742 1220-1010 cal BC⁴⁹ and 1260-1010 cal BC⁵⁰; PRN 34743 1220-1000 cal BC⁵¹) (Wessex Archaeology 2015, appendix 5, p20). Unusually for a burnt mound PRN 34742 contained a high number of charred cereal grains including spelt and emmer wheat. This suggests either grain processing on the burnt mound or that the site was close to a settlement and waste from this was burnt on the fires in the mound. There were two postholes exposed in the evaluation trench, so there may have been a related structure. PRN 34743 also had shallower features that could be postholes and pits and a ditch that was open during the use of the burnt mound, so both showed evidence of some complexity (Kenney 2012b, 12). Further trenching did not locate other Bronze Age features but there was still plenty of unexplored space in which a settlement might exist (Wessex Archaeology 2015, appendix 5, p17).

In all the above cases the mounds had been flattened by ploughing. PRN 34742 and 34743 were detected by geophysical survey, but although burnt mounds give strong signals in magnetometer surveys they are often confused with geological features and are not always reliably identified by this method. Parc Cybi itself demonstrates that burnt mounds are not necessarily densely distributed, and only more excavation will give a better impression of the numbers and distribution of burnt mounds on Holy Island

Barrows and cairns

Funerary cairns and barrows are usually the most numerous and obvious evidence for Bronze Age activity in an area. On the uplands of Gwynedd there are many cairns, but this is due largely to their preservation from agricultural improvements. On lowland Gwynedd and Anglesey there are few upstanding cairns and barrows, with those that do survive being the largest or those preserved on islands of rough ground. As Holy Island is mostly covered by improved pasture fields, much of which will have been used for arable in the past, known cairns and barrows are also relatively rare. The Parc Cybi and Tŷ Mawr barrows suggest that there may be many more that might survive only as buried remains. Other cairns, recorded in the 19th century have since been levelled.

There were three barrows or cairns at Porth Dafarch on the west coast of the island. One cairn (PRN 1772) was revealed by stone robbing in 1848, when urns with cremation burials were found and also a square cist large enough for an inhumation burial (Stanley and Way 1849, 226-231; Stanley 1876, 129-131). The other two barrows (PRN 1773 and 1774) were dug by W. O. Stanley and Albert Way in 1875. One barrow may have been revetted by a stone wall, though the walls shown on Stanley's plan appear to be related to an overlying roundhouse settlement. It contained cremation urns, some originally in small cists, but all disturbed. This mound had been reused as the base for a roundhouse and reused for an Early Medieval long cist burial (Stanley 1876, 132-138). The other barrow also had Early Medieval burials inserted in it, one in a long cist and others in dug graves without cists. Under these was a square cist containing a crouched burial with fragments of pottery, probably a Beaker. A large stone lying next to the cist was interpreted as a possible fallen standing stone that had marked the grave, and nearby was an inverted urn but no cremated bone (Stanley 1876, 138-140). Like the Parc Cybi cists the square cist was found to be "quite empty" (Stanley 1876, 139) when the capstone was lifted, as it had not been backfilled. These barrows would appear to have been Beaker or Early Bronze Age inhumation burials with secondary cremation burials added in urns. There seems to have been only one primary burial so they were of the more common single burial type of barrow unlike the Parc Cybi multiple cist barrow but probably dated from a similar period.

Other barrows or cairns are less comparable to Parc Cybi. Gorsedd Gwlwm, Tre-Wilmot, Holyhead Mountain is unusual in that it had large projecting stones forming "a large 'cove' like feature" (PRN 3798⁵²). It also had a kerb of large stones (RCAHMW 1937, 23) but most of this is no longer visible (Smith 2003, fig 12). Two cairns

49 Calibrated at 95% probability. SUERC-58606: 2921±29 BP
50 Calibrated at 95% probability. SUERC-58607: 2947±29 BP
51 Calibrated at 95% probability. SUERC-58608: 2907±29 BP
52 Record in database for project G1629, held by Gwynedd HER

overlooked Gogarth Bay on the western side of Holyhead Mountain (RCAHMW 1937, 23) but only one is still visible as a prominent cairn on top of a knoll (PRN 3804⁵³).

Cists without surviving barrows are also recorded from Holy Island. The most famous find is a jet-like necklace from a cist near Pen y Bonc (PRN 3802), though only a few beads were actually jet and the rest cannel-coal (Sherdian and Davies 1998, 158-159). This was found in 1828 in a cist with two pots, and apparently bronze armlets (Way 1867, 257-258). The cist was a square cist, 3 feet (0.9m) square, and so large enough for an inhumation burial. There is no mention of a cairn but it seems likely that it originally had one. Close to where the necklace was found there were also a group of what appear to have been small cists for cremations, but the pottery associated with these was Roman, so they appear to have been Roman cremation burials rather than Bronze Age ones (Stanley 1869, 306-307).

Right on the coast, not far from Pen y Bonc, a “cistvaen” was recorded (PRN 3796), which had its capstone removed (Jones 1855, 21-22). This cannot now be located⁵⁴. Stanley reported that there was a tradition of a cist at the Penrhosfeilw standing stones (PRN 2748), which contained “remains of bones, with spearheads and arrowheads”, but he was not able to confirm this (Stanley 1867b, 238). A geophysical survey around the stones found some anomalies but was also unable to confirm the presence of a cist (Ovenden 1990a).

Williams refers to a “seated” cist burial found near Trefignath tomb (Williams 1950b, 95). This is almost certainly the same *cistfaen* described by Jackson: “just before you reach Trefigneth [coming from the standing stone], opposite a cow-shed, under the left-hand wall, a *cist faen*, or stone coffin, was found some time ago, containing a human skeleton” (Jackson 1853, 69, text in square brackets added). As Jackson was writing in 1853, and the *cistfaen* was found before that, the tithe map is the most appropriate map to consult. This shows a single farmhouse at Trefignath, not the complex of barns that later developed (figure 110) but it does show a small structure on the south-west side of the lane. This could be Jackson’s cowshed, with the cist under the wall of the lane on the left hand side and opposite the cowshed. A grid reference of approximately SH 2574 8067 might be suggested for this find. If Williams “seated” burial actually is a confusion for a crouched burial⁵⁵ this may have been a Beaker or Early Bronze Age burial roughly contemporary to the Parc Cybi cists. This potential site has been recorded in the HER as PRN 81341.

With the probability that many of the cists and burial mounds have been lost to agriculture it is hard to be sure of the distribution but it may be significant that all the known cists and barrows/cairns are in the northern part of the island, no more than about 3km from Holyhead Mountain. It has been suggested above (see section on landscape) that the Bronze Age monuments, with the Neolithic tomb, may have been aligned to refer to Holyhead Mountain, and possibly other cairns also referred to the Mountain. The close grouping, at Parc Cybi, of the multiple cist barrow, the ring ditch, and the D-shaped enclosure suggests a ceremonial area, with the monuments added sequentially during the Bronze Age. The standing stone might be considered an outlier to this group and as the Tŷ Mawr barrow was only 300m away, these monuments might mark a more extensive zone of ceremonial or ritual significance. Bronze Age settlement activity does generally avoid this zone, where it has been exposed within Parc Cybi.

The distribution of the monuments in Parc Cybi may have been significant in other ways. They seem to be distributed along a route that avoids the steepest knolls, crags and marshy areas (figure 150). It is the easiest route through this landscape, as indicated by the fact that Lôn Trefignath later followed roughly the same line. Most of the Beaker period, Bronze Age and possibly Bronze Age domestic activity lies not far from this route. Other probable Bronze Age routeways are marked by standing stones and cairns, such as Y Fonllech Hir east of Harlech (Bowen and Gresham 1967, 58) and Bwlch y Ddeufaen between Abergwyngregyn and Rowen (Griffiths 1960, 333-334). No hollow way or other evidence of the use of this alignment as a trackway was discovered during the excavation but it is likely that most Bronze Age tracks were poorly defined and firm proof of this use is unlikely to be found.

53 Record in database for project G1629, held by Gwynedd HER

54 Record in database for project G1629, held by Gwynedd HER

55 Stanley (1867a, 33) refers to a crouched burial as “in a sitting posture”, so this interpretation seems likely.

Iron Age

Iron Age Settlement on Anglesey

Figure 151

Unlike the fringes of the uplands where a significant number of roundhouse settlements are preserved and visible as earthworks it can be assumed that most roundhouse settlements on Anglesey have been levelled by agriculture. It is notable that the denser groups of roundhouses on Anglesey also occur on higher ground and in traditionally non-arable areas, such as the Penmon deerpark and Mynydd Llwydiarth. On Holy Island the settlements are concentrated in the northern end of the island, but again that is largely because this end has been less intensively farmed than the southern end. Using the density of sites found on the A55 corridor as a guide Davidson and Smith (2012, 257) suggested a rough estimate of 490 still undiscovered Iron Age/ Romano-British settlements on Anglesey, giving an overall settlement density of about 1 settlement every 1.5km². This “indicates an almost completely utilised landscape” (Davidson and Smith 2012, 257) and is a similar density to that seen in the best-preserved areas on the mainland. For the northern part of Holy Island the density is higher than 1 settlement every 1.5km², though the exact figure depends which sites are counted.

Despite the number of settlements on Anglesey the only ones excavated to modern standards are part of Tŷ Mawr, Holyhead Mountain (Smith 1984, 1985, 1986, 1987a), Cefn Du, Gaerwen (Cutler 2012), Cefn Cwmwd, Rhostrehwfa (Roberts *et al* 2012), Melin y Plas, Bryngwran (Smith 2012a), Bryn Eryr, Llansadwrn (Longley 1998) and Rhydydefaid, Bodffordd (Davidson 1998, 53-55) (figure 151). Most of these were large scale excavations exposing all or a significant part of a settlement, but the excavation at Rhydydefaid was in a narrow easement for a water main and revealed only part of one roundhouse and a possibly associated enclosure ditch. However some fairly well-recorded earlier excavations were carried at Din Lligwy (Baynes 1908 and 1930), Pant y Saer (Phillips 1934) and Porth Dafarch (O’Neil 1940).

Very few of the settlements have been adequately radiocarbon dated, so it is not possible to determine how many were contemporary. Of the settlements that have been dated Cefn Cwmwd had Late Iron Age and Roman period activity (Roberts *et al* 2012) and Cefn Du had evidence of Middle Iron Age activity followed by Early Roman (Cutler 2012). Melin y Plas dated to the Roman period with a possibility of Iron Age origins (Smith 2012a) and Bryn Eryr was first occupied in the Middle Iron Age and continued through the later Iron Age into the Roman period (Longley 1998). Smith’s interpretation of the Tŷ Mawr settlement suggests that this was not a single settlement but a group of eight distinct farmsteads, only one or two of which were occupied at any one time (Smith 1987a, 29). The settlement as a whole seems to have been used from the Late Iron Age through into the third and fourth centuries AD, with radiocarbon dates giving a suggestion of Early Medieval reuse. Other undated sites have produced Roman finds but their Iron Age origins can only be investigated through radiocarbon dating. The available dates and artefacts show that some settlements were used over a long period of time, but Parc Cybi demonstrates that the duration of use might be much shorter. The concentration of the Iron Age activity in the Middle Iron Age at Parc Cybi, across the site, not just in the main settlement, suggests that some areas that were densely settled were then abandoned as settlement shifted. Several undated settlements close together may give an inaccurate impression of settlement density, which was not evident when the sites were in use, if they were occupied at different dates. However, it is clear that there are many sites still to be found, as indicated by Parc Cybi itself, but also by finds at Kingsland, which probably indicate another settlement (Wessex Archaeology 2015, Kenney 2012b).

It is likely that Anglesey, and perhaps particularly Holy Island, was densely occupied from the Middle Iron Age and through the Roman period. This density of settlement also suggests that the wider landscape was well-used with many fields and probably small areas of woodland. Although Iron Age fields are common on the uplands of Gwynedd, surviving as collapsed wandering walls or even upstanding walls still in use, there is little evidence of Iron Age fields surviving on Anglesey. However, the pre-medieval ditches at Parc Cybi show that some traces of these early fields can survive on the lowlands. Parc Cybi provides evidence of fairly small sub-rectangular fields and a curving boundary, possibly for a livestock enclosure, as well as a trackway in the Roman period, if not earlier. Environmental evidence from Bryn Eryr showed progressive clearance of alder woodland around the settlement to create arable and pastureland (Longley 1998, 252). Here emmer and spelt wheats were grown in the Iron Age while barley and oats became predominant in the Roman period, when bread wheat was grown instead of the earlier varieties (Longley 1998, 253). The roundhouse settlements investigated on the A55 had evidence for a similar sequence of cereals, and Ciaraldi suggests that the barley and oats in the later phases may have been grown together as a maslin (mixed crop) (Ciaraldi 2012, 240). The presence of charred gorse or broom and heather

stems from Cefn Cwmwd indicates some open, uncultivated ground and the development of heath (Gale 2012, 218, 220). Cefn Du produced charred seeds of perennial plants as crop weeds, suggesting that ards, rather than mould-board ploughs were used for ploughing as these do not plough so deeply and allow the survival of perennial weeds (Ciaraldi 2012, 223).

The evidence from Parc Cybi supports the dominance of wheat in the Iron Age, particularly emmer wheat. The main settlement did not produce any identifiable spelt grains but spelt was found in the clay-walled roundhouses, which were roughly contemporary with the settlement. There was also evidence of spelt wheat in the Late Iron Age hut located north-west of the main settlement, but there does not seem to have been a shift towards an increasing importance of spelt wheat at Parc Cybi. The small quantity of oats found in Iron Age contexts at Parc Cybi suggests that it was a weed of the arable fields, rather than a crop. Barley is also rare, so it may also have been a weed despite it being grown as a crop elsewhere in the region (McKenna, volume 3, part XIX.4).

The generally poor bone survival on much of Anglesey makes it difficult to determine what livestock was kept and identifying husbandry practices is usually impossible. However, the presence of limestone in the south-eastern corner of the island does allow for recovery of bone in that area. Bryn Eryr had evidence of cattle and sheep but not pig. There was also a horse skull, so at least one horse was present on the site (Longley 1998, 253). The relatively numerous horse teeth recovered from Parc Cybi also demonstrated the importance of horses. Despite being on limestone and containing plenty of shells, the roundhouse excavated at Parc Dinmor, Penmon by Phillips (Phillips 1933) had few animal bones. However, the fragments that were found demonstrated the presence of cattle, sheep and pig, as well as horse. A scrap of red deer antler could indicate the working of antler rather than the use of deer as food. The settlements, therefore, should generally be seen as being surrounded by fields for mixed farming and the settlements themselves were likely to have storage facilities for crops and structures for the housing and management of livestock.

Defended settlements or hillforts are quite evenly distributed over Anglesey, suggesting territories of roughly contemporary chiefdoms. The unenclosed settlements can be seen as farmsteads within these territories, and presumably under the protection of the chiefs in the hillforts. Longley (1998, 270-271) argues that enclosed roundhouse settlements formed a middle level in social status between open settlements and hillforts. The main Parc Cybi settlement was unenclosed but it had features suggesting it was of this middling status. The size of the roundhouses, especially roundhouse A, is suggestive of more than an ordinary settlement. The entrance to roundhouse A was enhanced not only by a large porch but also by a pathway bordered by an impressive wall running through the settlement. This wall seems to embody some of the symbolic elements of an enclosure without actually enclosing anything. It demonstrates to visitors the economic and technical ability of the occupants of the settlement to visitors, and guides those visitors through the settlement. The southern part of the settlement may have been at least partly enclosed, while the main house (roundhouse A) was unenclosed, but the visitor was still constrained in how they could approach the house. This may have been symbolic of a wider social role than just the role of this house on its village. The atypical direction of the main doorways, facing west or north-west, may be related to a ceremonial role for not just roundhouse A but all the large houses in the settlement. The location very close to the marsh could possibly also have had a ceremonial or possibly even religious significance, though without finds from the marsh that cannot be confirmed.

Kelly (1990, 107) and Longley (1998, 265) have suggested that roundhouses changed from being large timber or clay-walled buildings in the Early and Middle Iron Age to smaller stone buildings in the Late Iron Age and Roman period. The large stone-built, Middle Iron Age roundhouses at Parc Cybi are evidence against a straightforward typological change. The presence of stone and clay-walled roundhouses at much the same date at Parc Cybi also indicates that there are no inherent chronological implications of the different construction types. Kelly (1990, 107) suggests that timber was used for large roundhouses in the earlier period because this was available where the woodland was being cleared, but was less available later in the more open landscape. Possibly Parc Cybi varies from this trend because long timbers might always have been scarce on Holy Island, where the wind and salt would have restricted tree growth. Good timbers may have had to be reserved for the roofs, so stone was used for the walls. However, there are too few settlements that have been excavated with modern techniques and well-dated to be sure that this change was chronological at all.

The Middle Iron Age Village at Parc Cybi

Figure 66

The pre-roundhouse landscape

Pollen evidence from the edge of the marsh showed a succession from hazel scrub to fairly dense oak and alder woodlands. By the Bronze Age the pollen evidence obtained suggested that the area was covered by closed mixed woodland with few openings except next to the marsh itself. However, at some stage the area seems to have been ploughed. The soil micromorphological evidence of ploughing is not extremely clear but most of the buried soil layers under the roundhouses were disturbed, suggestive of a long period of ploughing. A stone layer at the base of the buried soil near structure F is also suggestive of ploughing. Worm sorting under the roundhouses implies that some of the area, at least, had not been tilled for a considerable time before the construction of the buildings. The roundhouses were probably built within pasture fields that had previously been ploughed, and this may also apply to the Early Iron Age stone platform with the clearance possibly starting in the Late Neolithic. This appears to be incompatible with the pollen evidence for dense forest cover in the Early Bronze Age, but dense vegetation on the marsh edge may have blocked pollen rain from a small Late Neolithic clearing. The presence of Late Neolithic settlement on the site later occupied by the Iron Age village shows that there must have been some clearance or disturbance of the woodland around 2500 BC.

The earlier ditches and the stone platform, with its proposed timber house, may have been part of a Late Bronze Age pastoral landscape if the gap formed by ditches 91445 and 92615 can be interpreted as a funnel-shaped entrance for droving cattle (figure 61). It may even indicate a routeway running into or past the marsh. More generally the area was full of suggestions of the past. There was the Neolithic tomb on the hill and to the north-west two Bronze Age mounds and the partially infilled ditch and possible bank of the D-shaped enclosure; while the standing stone would have been as visible as today. It is impossible to know what the occupants of the settlement thought of these monuments but it might be speculated that the stone axes brought back to the settlement indicated an interest in the past that surrounded them.

Roundhouse Structures

Table 14. Internal diameters of the roundhouses in Areas B2 and F1 at Parc Cybi

House	Diameter
Roundhouse A phase 1	c. 11m
Roundhouse A phase 2	c. 9.5m
Roundhouse B phase 1	c. 10m
Roundhouse B phase 2	8.5m by 7m?
Roundhouse C	c. 7.6m
Roundhouse D	c.7m??
Roundhouse E	9.4m
Structure F	c.8m
Structure H	c.6.5m??
Roundhouse I	9.6m

Using data collected by George Smith for a Cadw funded project on roundhouse settlements on Anglesey (GAT project code G1104) (Smith 1999), with additions from more recent excavations, some rough comparisons can be made (see appendix IV). Of 143 roundhouses with recorded diameters 7.7% were 10m or over (12m being the maximum diameter), though most (72%) were between 6m and 9.5m in diameter and 20.3% were under 6m. These figures are very rough, as it is not always clear from the data if these are internal or external measurements and many are on unexcavated sites, but they give a general idea of house size. The first phases of roundhouses A and B can therefore be seen to fit the upper end of the normal size distribution of Anglesey roundhouses. Roundhouses E and I were also at the larger end of the scale. Ghey *et al* (2007) found that the diameters of houses across Wales were variable but the average was an internal diameter of just over 8m, with stone houses generally being smaller than timber ones. The Parc Cybi houses therefore seem large for stone-walled roundhouses. However the sample of stone-walled roundhouses is dominated by those surviving on the uplands, and there may be many more large, lowland stone roundhouses still to be found by excavation.

The substantial nature of the surviving wall foundations in roundhouses A, B and E suggests that the entire wall

was built of stone. Structure D, although largely robbed out, originally also had a substantial well-built wall. In roundhouse C the wall was of a different character, with stone facing but more earth within the core and this may have been the base of a clay wall. Roundhouse E had a wall of fairly consistent width of about 1.2m wide. The original walls of roundhouses A and B widened towards the main entrances, that of roundhouse B being about 1.2m wide and widening to 1.9m, while roundhouse A was about 1.5m wide and about 1.7m at the entrance. The stone walled roundhouse at Erw Wen, Ardudwy (Kelly 1988) had a wall about 1.2m wide and the surviving fragment of wall of house G at Graeanog was nearly 2m wide (Kelly 1998, 121). At Cefn Graeanog II houses C and D had walls that broadened at the entrances. Hut D had a wall about 1.8m wide the splayed to 2.5m at the entrance (Mason and Fasham 1998). The broadening of the walls at the entrance can also be seen at building S at Tŷ Mawr (Smith 1985, 21-26). The walls at Parc Cybi were built with large stones used for facing and a rubble core, a technique seen at many other stone-built roundhouse settlements, such as Pant y Saer (Phillips 1934). Pant y Saer provides a possible parallel for the thickening of the whole wall, not just the entrance as seems to have occurred in roundhouse B. A feature in the smaller roundhouse at Pant y Saer is described as “a bench built of slabs and rubble” (Phillips 1934, 10) and it is shown on the plan curving round most of the interior of the house. The facing stones are shown tied into the structure as for a wall.

The height of the walls is difficult to estimate. At Erw Wen much of the stone collapsed from the wall survived, despite medieval stone robbing, and Kelly (1988, 130) suggested that the walls stood to about 1 to 2m in height. At Parc Cybi there was remarkably little rubble surviving from the walls, presumably because it had all been reused for later building, so this cannot be used to support wall height. The foundations would have been able to support a wall of full height of about 2m, though with the height of the roofs over these large buildings a high wall would probably not be necessary. Hogg (1969, 13) suggests that the lack of fallen stone at Cefn Graeanog indicates that the walls of that stone-built roundhouse settlement may not have stood more than 4 to 5 ft in height (1.2-1.5m), and this would seem to be a logical height for a roundhouse wall.

In roundhouses A and B the additions gave wall thicknesses at the entrances of about 2.5m and 3.0m respectively. These would seem to be structurally unnecessary and reduced the interior space. In roundhouse B, after an additional arc of wall had been built to widen the main entrance, it appears that the wall towards the rear entrance was also widened with the addition of 90847. If this was reflected on the southern side of the building as well it would have left an internal space only about 7m in diameter. The clay deposit (90806) interpreted as a hearth belonging to this phase, and other features relating to the later use of the roundhouse, lie outside this proposed reduced circular interior. This may indicate that 90847 was the base of a low platform rather than a wall and was only present on the northern side of the house. Alternatively, it is possible that the interior of the house was not circular.

The lack of the southern half of the wall of roundhouse B makes interpretations speculative, but the position of the surviving fragment of the southern side of the eastern entrance does hint that the roundhouse may have been slightly oval in plan, rather than perfectly circular. In this case an oval interior of about 8.5m by 7m would just enclose all the later features inside the house, and the objection to 90847 being the foundation to an additional thickness of wall is removed. The surviving evidence cannot prove that there was a widening of the wall inside the south-eastern arc of the building, but it also suggests that the presence of such a massively thickened wall was not impossible. If a doubling of the thickness of the wall foundations can be suggested as indicating a doubling of the height of the wall, the later phase of roundhouse B might be imagined as a small tower. Unfortunately, the survival of evidence from this site is inadequate to base an argument for stone towers in the Iron Age of North Wales but it is sufficient to raise this possibility when excavating other sites.

The roundhouses must have had conical roofs. The lack of post rings in most of the roundhouses would suggest that the roof was supported on the wall and the walls would certainly appear to have been strong enough to do so, although the span to be roofed was large. House G at Graeanog, Clynnog probably had an internal diameter of 9m and no post-ring and the house that replaced it (house B) also lacked a post-ring and had a wall up to 2.5m wide (Kelly 1998, 121, 125). Kelly (1998, 153, 156) suggests that the width of the walls was due to the need to support the roof on the wall, and that this may have been a result of a shortage of timber, with all available long timbers being reserved for the roof and use for support posts being avoided. It is assumed that a ring beam rested on the top of the wall on which the roof rested.

The wall of roundhouse I needs particular consideration. It might be considered to be a ring-groove roundhouse with the slot holding posts or planks. Moel y Gerddi, Ardudwy (Kelly 1988) provides a good example of a roundhouse with a plank wall, as the packing stones were sufficiently well-preserved to demonstrate that the ring

groove had held planks rather than posts. However, this was a regular groove of even width and depth, unlike that of roundhouse I. The elongated hollows of varying lengths and depths suggest that they held objects much thicker than planks and of varying sizes; if these were segments of timber then the holes might be expected to be more D-shaped in plan. The rounded bases of the holes are perhaps more suggestive of stones and it was felt during excavation that these might have held stones set on edge. Some stone-walled roundhouses do have orthostatic facing but perhaps the best comparison is House 1 on Trevelgue Head, Cornwall (Nowakowski and Quinnell 2011). The wall of this house was composed of orthostats set in a rock-cut slot. The gaps between the orthostats were filled with horizontally laid small, thin slabs. For much of the circuit of the wall the house was terraced into a hill slope and the orthostats formed a revetment rather than a freestanding wall, but on the south side they were freestanding. This area had been disturbed but it appeared that even here the orthostats were not an inner face of a thick stone wall but a single thickness, though it is not clear if they might have been backed by a turf wall. Nowakowski and Quinnell (2011) do not discuss the original form of the wall but it seems unlikely that it could have been any higher than the roughly 0.5m that the orthostats projected from the ground, unless it was the face of the base of a turf wall.

The precise circle of a single row of orthostats seen at Trevelgue Head closely resembles what might be reconstructed in the foundation slot of roundhouse I (figure 152). The 1939 excavation at Trevelgue Head did not investigate the character of the slot for the orthostats, so it is not known if that also took the form of elongated conjoined hollows. House 1 at Trevelgue Head was much larger than roundhouse I, 14m diameter compared to 9.6m, but it did have other features in common. The wall was probably non-weight bearing, as there were two post rings in the centre to support the roof, though it was unclear if these were contemporary or successive. The post ring in roundhouse I would also have been the main weight bearing structure. Perhaps most striking is the similarity between the entrances of the two buildings. Both have large postholes at the doorway that are joined by straight slots to a pair of postholes about 2m beyond the wall line. At Trevelgue Head the outer posts are interpreted as free standing and the slots appeared to have held a kerb to paving leading into the entrance. In roundhouse I, where the outer postholes were more substantial the structure is interpreted as a porch, but the general plan is very similar. The interiors of both structures were busy with pits and postholes, though Trevelgue Head House 1 did not have the central intercutting pits that were found in roundhouse I. It did however have two gullies running radially from the inside of the wall, which were similar to gullies 93510 and 93183. By comparison to Trevelgue Head the remains of roundhouse I might be interpreted as a roundhouse with the roof supported by a ring of posts and the wall being formed of orthostats but standing little more than 0.5m in height, probably blocking off the lower eaves of a roof that came right down to the ground.



House 1 at Trevelgue Head is estimated to have been constructed about 400-230 cal BC (Nowakowski and Quinnell 2011, 126), so chronologically it could have been drawing on similar traditions to roundhouse I, which has produced dates of 370–190 cal BC (SUERC-83298) and 370–200 cal BC (SUERC-87091). Nowakowski and Quinnell (2011, 345) could not find any similar architecture in South West Britain, but it is possible that there was a similar house only about 1.2km from roundhouse I. Geophysical survey at Kingsland, just west of the Holyhead Leisure Centre, produced an anomaly suggestive of a roundhouse (PRN 34737). Evaluation trenching revealed a slot approximately where the roundhouse wall was expected from the survey (Kenney 2012b, 8-9). The slot (0110) was 0.7m wide and possibly slightly curving. It had steep sides and a narrow rounded base but was particularly notable for the unevenness of the base, as the feature was formed of a series of elongated hollows separated by narrow ridges of gravel (plate 233). These hollows measured up to 1.26m long and the feature was up to

Plate 233. Feature 0110, fully excavated, in trench 1 at Kingsland (PRN 34737)



Plate 234. Large stone on edge in feature 0110

0.46m deep in the base of the hollows. This feature had a loose gravelly fill packed around numerous thin schist slabs set on edge, which had the appearance of packing stones. About 7.7m to the west was another feature [0109] very similar in character with upright slabs in its fill. These features are interpreted as parts of a wall of the same type as roundhouse I, giving a possible diameter of 10m for the proposed structure. Unless this area is fully excavated this interpretation cannot be certain but it seems very likely. If these walls slots did hold orthostats it is notable that in both cases (roundhouse I and Kingsland) they had been completely removed and this was done sufficiently carefully to not significantly disturb the slots. However, at Kingsland one stone in slot 0110 appeared more like the broken base of an orthostat than a packing stone (plate 234), so possibly not all the orthostats were completely removed. At Parc Cybi this careful stone removal may have been done during the lifetime of the settlement and the stone used for later building or rebuilding. Sherds of Bronze Age pottery found redeposited inside an Early Medieval corn dryer cut into the middle of the Kingsland structure suggested that it could be of Bronze Age rather than Iron Age date (Kenney 2012b, 9, Wessex Archaeology 2015, appendix 5, p15), but no confidence can be placed in this unless the full area is excavated.

Entrances

Several of the Parc Cybi houses have opposing entrances. This in itself is not unprecedented, though unusual for stone-built roundhouses. Opposing entrances in timber roundhouses are particularly found in northern England and Scotland, where they are often associated with ring-groove roundhouses (Harding 2009, 81). More locally the houses at Moel y Gerddi and Erw Wen, Ardudwy had opposing entrances, though in both cases this was just in their timber, ring-grooved phase and they had single entrances when they were rebuilt in stone (Kelly 1988). Generally where roundhouses have opposing the entrances these are of a similar scale without one being obviously the principle entrance (Harding 2009, 81). At Parc Cybi roundhouses A, B and E clearly have a main entrance that is enhanced by various features. In roundhouses A and B the width of the wall at the main entrance was increased by additional walling, and in the case of roundhouse A this was accompanied by a remodelling of an already impressive porch structure to make it even more substantial. Roundhouse E had orthostats at either side of its main entrance and no postholes for a porch, but a drain-like slot (94023) running from the northern side of the entrance might have held one side of a porch. The porch of roundhouse I is similar to that of classic Wessex roundhouses with two posts joined by a trench at each side of the porch (Harding 2009, 58, 60). It is also similar to that of House 1 at Trevelgue Head as discussed above. Harding (2009, 60) describes the large entrance at Little Woodbury and similar sites as “unduly pretentious for everyday access” and this description could also be applied to the entrances of Parc Cybi roundhouses A and I.

No convincing porch survived at roundhouse B but like roundhouse A it had a pathway of slabs leading to the entrance. This path was flanked on the southern side by two phases of structures, one of which was a granary and the other probably also a storage building. The positioning of these buildings may have been to demonstrate the settlement’s wealth to those who were entering. The route to roundhouse B may also have run past a structure with large postholes in a C-shaped plan, and a cobbled area (Group 94016). The date of this is unknown, and it is possible that it was as late as post-medieval, but an Iron Age date might be from spindle whorls found in and over the deposits in this area. This was perhaps also a form of granary located close to the route to roundhouse B.

The route to roundhouse A was enhanced to make it impressive and to constrain the movement of visitors to the house. Wall 90010 ran down the south-western side of a broad cobbled routeway, enhanced by a slab path as it approached the roundhouse. At the early phase of the settlement two short ditches partially blocked the routeway, leaving a fairly narrow causeway between them for access. This restricted access would have made more sense if there were also a wall on the north-eastern side of the cobbled routeway. A short, fragmentary section of wall (91293) may have been the remains of such a wall. This wall was demolished during the life of the settlement but could indicate that during the early phase of the settlement the route to roundhouse A was restricted between two walls. The demolition of this wall and the infilling of the short entrance ditches suggests that their function was no longer required in the later phase of the settlement. Harding (2009, 276) suggests that impressive porches may have “provided for communal, perhaps even ceremonial or processional access”. The elaborate routeways into roundhouses A and B would seem to fit this idea of processional and directed access.

The rear entrance to roundhouse A may have been quite substantial if it is marked by the group of large postholes. Only one side of the rear entrance to roundhouse B survived so its size is unclear, but that in roundhouse E appeared to be a small backdoor only 1m wide. That in roundhouse I was poorly defined, though the presence of structures immediately behind the roundhouse, as well as the gap in the wall foundation slot is suggestive of there being an entrance here. Roundhouse C had a single entrance facing south-east into the settlement area. The location of the entrances in structures H and D is not known, but that in structure H might be suggested as opening to the south-west on to the adjacent cobbled surface. The door seems not to have been in the south-east or eastern side as this was where the only remains of the house wall survived and no door could be seen.

The rear entrances and the single entrance of roundhouse C faced east or south-east, while the main entrances face west or north-west. Across Britain in most roundhouses an east or south-east facing door is usual, though Parker Pearson admits that a few houses were “back to front” and had west facing doorways (Parker Pearson 1996, 127). Oswald (1997) has specifically studied entrance orientation and concluded that entrances do not just face an arc between east and south-east, but that the distribution is bimodal with entrances either facing east or south-east with relatively few orientated between. The orientation of roundhouse doors is often explained through practical considerations of maximising light and warmth. Oswald points out that an east facing entrance would not receive direct sunlight in winter and such considerations would lead to a wider range of directions, with more doors in particular facing south. He suggests that the strict bimodal distribution must be influenced by ideology, not practicality, and suggests references to the equinoxes and winter solstice sunrise (Oswald 1997, 93). However, Pope (2007, 211) considers that the bimodal pattern was largely down to Oswald’s selection of sites. Pope (2007, 212-3) found that the majority of prehistoric and Roman period circular structures in north and central Britain were orientated between north-east and south-east with a preference for east, east-south-east and south-east, with no obvious polarisation. Pope (2007, 214) finds a shift more towards the easterly direction in the second millennium BC and suggests this may be due to the worsening climate at this time leading to doorways shifting to a more sheltered orientation. Although the details and explanations might be disputed, the evidence across Britain indicates that easterly or south-easterly facing entrances are usual for roundhouses. At Parc Cybi the entrance to roundhouse C, which is a small and unpretentious building, conforms to this, as do the backdoors. The main entrances appear deliberately to flaunt the common convention.

Oswald (1997, 91) does say that stone-built roundhouses in north-west Wales do not show his bimodal distribution, and various orientations were used. Ghey *et al* (2007) found that, while out of their database of Welsh roundhouses east and south-east were preferred orientations, this was not a strong preference, with only about half of houses preferring these orientations. There were a number of west-facing doorways; some of these were opposing doorways, in other cases the doorway faced the enclosure entrance. This variability can be seen in clay-walled roundhouses as well as stone ones and may be due to a less strict compliance to the ideal door direction, allowing local practical considerations to influence door orientation. A west or north-westerly orientation can be seen at various sites in the area. At Parc Bryn Cegin roundhouse E had the entrance to the west (Kenney 2009, 72) and the doors in roundhouses A and C probably opened to the north-west (Kenney 2009, 81, 86). Entrances to other houses on this site were less clear but mostly probably on the west or north-west side, as this was the downhill side on a significant slope. At Pant y Saer the two roundhouses face each other, one opening to the east and one to the west into the central compound (Phillips 1934). At Cefn Graeanog II House A faced west-north-west, house C south-west and house D east, but their different directions were due to all facing into the enclosed courtyard (Mason and Fasham 1998, 20). The door of house D at Graeanog faced west for a similar reason (Kelly 1998). Moel y Gerddi and Erw Wen had both east and west facing doorways in their early phases. When rebuilt in stone only the eastern door was retained at Moel y Gerddi, but at Erw Wen the door was in the western side (Kelly

1988), possibly due to its position terraced into a north-west facing slope. These examples suggest that practical considerations might influence west and north-west facing entrances. However, the elaboration of the entrances and access routes at Parc Cybi and the lack of a steep slope suggest that practical issues were not dominant here.

As described above the main entrances of roundhouses B, E and I were orientated to the north-west, while that of roundhouse A was to the west. The north-west is also emphasised by the alignment of the wall 90010 running through the settlement and the pathways to roundhouses A and B. The coldest and fiercest storms of winter come from the north-west and the sun would only shine into a north-west facing doorway close to sunset near the summer solstice. The orientation of these doorways, therefore, has little practical advantage, and it contradicts Pope's suggestion that doorways in the Iron Age were orientated away from prevailing winds. The doors all look outward, so the orientation is not to do with doors facing each other within the settlement.

Looking north-west from the settlement the most obvious feature is Holyhead Mountain, and the doorways seem to be pointing towards this. The alignment of the doorway of roundhouse I on the mountain was particularly clear (plate 235). The Mountain, although only 220m high, is a dominant presence and would have been particularly useful for seafarers as a sea mark giving warning of the dangerous coast around its base and the safe harbours around the eastern side of the island. It had added importance in the Iron Age as the summit was enclosed within a substantial hillfort. Caer y Twr (PRN 1760, SAM An019) had a stone rampart wall, with a walkway on top, enclosing about 6.9 hectares. No roundhouses have been identified inside but the presence of small agricultural terraces just outside the rampart to the north suggests that there may have been some occupation (RCHAMW 1937, 24, 25). It is always assumed that settlements around a hillfort were socially or economically related to it, though without dating from the hillfort this is hard to demonstrate. No other roundhouse settlements in the area seem to face directly at the hillfort and it is unclear whether it was the hillfort or the mountain itself, or both, that the Parc Cybi settlement was referencing.

The alignment to the north-west suggests a possible connection with the summer solstice sunset. The sunset was witnessed on the site on 21st June 2019 and the sunset significantly to the right of the mountain when seen from the location of the settlement. This solar alignment, therefore, cannot be used to explain the direction of the doors.

The orientation of the front doors probably made the back doors a necessity. In winter the front door could be left closed all the time and just the back door could be used; though it should be noted that easterly winds in winter can be bitter on Holy Island. It is also possible that the front door was only used on special occasions or by certain people, so a backdoor might be necessary for normal access. In this sense Parc Cybi seems to conform to the easterly or south-easterly orientation of doorways for practical access.



Plate 235. View from middle of roundhouse I through entrance (diggers are standing in the outer porch postholes). Holyhead Mountain would be visible through the entrance. (Exploratory sondages dug through gravel platform seen in foreground)

Internal organisation

Harding defines a house as having “an occupational or domestic function, though this need not have been its role exclusively”, and recommends using artefacts rather than the ground plan to identify that function (Harding 2009, 27, 28). Though Brück (1999, 156-7) warns that waste disposal and post-depositional processes can influence find distribution, but where distribution patterns reflect the architectural layout of a building she suggest that these distributions may be meaningful of the use of the building. However, Harding (2009, 271-2) highlights the difficulties in identifying the real social function of a structure rather than just the practical function indicated by artefacts.

Many authors have looked at the layout of roundhouses to determine their function and anthropology has been used to provide suggestions of ways of looking at the layout of Iron Age roundhouses (Parker Pearson 1996; Oswald 1997; Fitzpatrick 1997). Symbolic divisions of houses, rather than just practical factors, seem to influence the layout of houses in many cultures. Discussions have focused on the division of space between male and female activities and other opposed ideas, such as light and dark, left and right, living and sleeping. Some cultures have specific ways of moving around a roundhouse, often sunwise, i.e. turning left on entering the door (Oswald 1997, 93). Pope (2007) has warned against uncritical applications of anthropological analogies and the assumption of universal trends. In relation to roundhouses she specifically refers to the assumption that binary oppositions were of significance in all societies and assumptions about gender roles.

Some patterning of features within the Parc Cybi roundhouses can be seen but it is not consistent and clear. Roundhouse C generally had more activity in the half to the left of the door, as seen on entering, than to the right. This pattern is quite clear in roundhouse I where there were more pits and some sub-divisions of space to the left, but fewer pits and more open space to the right. There was a large grinding stone in the right-hand side, but this was not embedded in floor deposits and may have been moved by ploughing, so it is possible that it was originally in the left-hand side. Roundhouse B had pits scattered all over the interior. The sidedness of the houses is complicated by most having two doors. If the layout is influenced by the position of the door then the backdoor might be more important rather than the main entrance, as this would have let in more light.

In the first phase of roundhouse B the remains of a paved area (92398) defined by kerbing ran round the north-west arc of the wall just to the left of the main entrance. Roundhouse E also had an area defined by a different deposit (91561) marked by kerbing inside the north-east arc of the wall. The second phase of roundhouse B had a row of slabs (90985) along the edge of an area of stone across much of the northern arc of the interior. Such slightly raised areas might be suitable for sleeping. If so the layout of such areas was far from fixed; in the north-west arc, where roundhouse B had a platform, roundhouse E had a grinding stone and trough, suggestive of food processing. It might be that any part of the northern half of the house was considered as appropriate for sleeping. The complete lack of features in the northern part of roundhouse C in both its phases might also be explained if this was a sleeping area. However, in roundhouse I the southern arc beyond the post-ring lacks activity and could have been the sleeping area. Blank or raised areas could equally have been used for storage or other functions.

Roundhouse E had the clearest internal layout. The left side of the house, as seen when entering the main doorway, had most of the pits and the north-east arc had the kerbed surface running round the wall. The use of this area is indicated by a grinding stone and trough, suggestive of cooking processes and the majority of the spindle whorls being lost in this half. If cooking and spinning can be seen as gendered tasks the northern half of the house might be seen as the women's space. This suggests other tasks or activities that were less archaeologically visible were carried out in the other half of the house. These might be activities carried out by both genders but it is tempting to suggest an area mainly used by men. Without additional evidence it might be safer to suggest that half the house was used mainly for domestic tasks and half for other activities without implying who carried out those activities. The other houses demonstrate that this pattern cannot be extended to all the houses in the one settlement never mind on a wider scale.

The scarcity of features within roundhouse A in its first phase of use is striking. There does seem to have been a hearth and there may have been small structures against the inside of the north-western arc of the wall, but little else could confidently be assigned to this phase. Even in the later phase of use, when there were a few pits and stakeholes around the hearth and again a small structure and a possible drain, the number of features was still low compared to the other houses. It might be suggested that this roundhouse was used for different functions to the others, with perhaps relatively little domestic activity. The presence of three spindle whorls from this house however does suggest that some domestic activity was taking place, as long as the findspots for these objects can indicate where they were used. This scarcity of features, along with the routeway leading to the house, suggest

that this building may have been largely used for visitors, or occupied by the head of the village, who had his food cooked in one of the other buildings. The evidence would be consistent with a building used for essentially political or social purposes, with people visiting from other settlements, but proving such a function is problematic.

In contrast, roundhouse I, despite its large porch, seems to have been a building where many practical tasks were carried out. Almost all the activity took place inside the area defined by the post ring. The only significant exception is in the northern arc, where an area seems to be specifically separated from the rest of the building and a rectangular trough or tank-like structure is enclosed. Presumably the initial spread of burnt stone and charcoal is related to the central hearth and possibly to this tank. Some activity involving hot stones and water may have taken place. However, as most features cut the burnt deposit and deposits overlying the hearth the use of the building seems to have altered during its life. The two very large posts (93574 and 93405) and to the north of the centre of the building are intriguing. They did not seem to be structural, and they were too large for internal furniture or room dividers. Although they could have been in use together, one was added after the other was in place. There also seems to have been a series of posts in the southern part of the building near the grinding stone. The tank, burnt stone and numerous pits suggest a specific practical function for this building but the impressive north-west facing porch and the large posts could imply other significances. The position of the building on the edge of the marsh with considerable expenditure of effort to enable it to be built in this position supports a significance for this structure that was more than the merely practical.

The central feature of intercutting pits in roundhouse I closely resembles a central feature in a pit or posthole circle at Cefn Cwmwd (Roberts *et al* 2012, 37). This also had a shallow hollow filled with sandy clay and cut by numerous intercutting pits, including evidence for burning. A date of 400-160 cal BC⁵⁶ (95.4% probability) (Roberts *et al* 2012, 32) places this feature in the Middle Iron Age and at a similar date as roundhouse I. This does not help greatly in interpreting roundhouse I, as the Cefn Cwmwd feature pre-dated the main pit or posthole circle, which was interpreted as probably a circular timber structure of domestic function. However, the phase plan does hint that there might have been an earlier timber structure largely replaced by the phase 2 structure, so it is not impossible that this was in the middle of some sort of roundhouse. House C at Parc Bryn Cegin also had a complex sequence of intercutting pits in the middle, with evidence for some being used as hearths (Kenney 2009, 86). A similar complex of pits, with a hearth in the top, was found at Moel y Gerddi (Kelly 1988). It is not clear what these pits were for, but the use of part of these complexes for a hearth seems consistent, and it is possible that the pits relate to cooking activities. Stanley (1867b, 237) notes that quantities of burnt stones were found in one of the Tŷ Mawr huts, both filling a hearth and scattered around. At Parc Bryn Cegin there was heat-cracked stone distributed around the inside of house C and at Parc Cybi in roundhouse I the spread of burnt material inside the house also contained had heat-cracked stone. These pits, possibly with organic linings, could have been used to boil water with hot stones, which were then dumped around the house.

Most of the roundhouses had a central hearth, though in the later phase of roundhouse B the hearth was set within the south-eastern part of the house. At Tŷ Mawr Stanley found at least one house that had a hearth formed by flat stones set against the hut wall (Stanley 1867b, 231, 234), so central hearths cannot be assumed. The hearth in roundhouse E was notable for having a large hearthstone. This was set on edge in a cut and clay built up around it as the hearth was used. This would presumably have retained heat and assisted cooking.

During excavation it could be seen that there were several floor layers within the roundhouses and this was confirmed by micromorphological analysis. The analysis showed that floors were repeatedly replaced and each phase of floor was composed of a layer of gravel levelling with an earthen floor on top into which charcoal was often mixed, probably largely by trampling. Roundhouse C had 0.4m of floor deposits repeatedly relaid and built up against the inner face of the wall.

Settlement organisation

Layout and possible enclosure

As discussed above it is suggested that roundhouse E existed on its own before the settlement expanded. This first roundhouse was demolished and roundhouse A and B were built, with roundhouse C being added later, probably when the other two roundhouses were altered (figure 66). In the core of the settlement phase IIa therefore had a single house, phase IIb had two main houses and phase III had three houses, as well as other structures. Roundhouse I was probably also built in phase IIb to the south of the main group. However, its separation from phase IIa relies only on layers, probably relating to the gravel platform under roundhouse I, over-lapping the stone

⁵⁶ Wk9284: 2227 ± 57 BP

platform for roundhouse B. Structure F was built to the north, but it is poorly dated and not linked stratigraphically to the rest of the settlement. It might have been built in the Roman period after the rest of the settlement was abandoned.

As described above, in phase IIb the main doorways of all the houses opened to the west or north-west. The alignment to the north-west was emphasised by a wall (90010) running through the settlement effectively controlling the approach to roundhouse A, with a gap through giving access to roundhouse B. The route to roundhouse A was cobbled and was accessed through an entrance defined by short ditches (92210 and 92189) with possibly originally another wall (91293) to the north-east to create a broad corridor or passageway. The north-west to south-east alignment of wall 90010 was reflected by the pathway to roundhouse B, which was almost exactly parallel to the wall.

This alignment seems to have originated in phase IIa with roundhouse E, which also had its main door facing north-west. Running to the west of the house was wall 92016, the alignment of which the later, larger wall (90010) appears to have followed. Almost parallel to the north of wall 92016 was a slightly curving wall (92078) this may have created a passageway to the main entrance of roundhouse E, although the walls were not quite aligned on the entrance (figure 68).

The north-west alignment continued in phase III, though slightly weakened as roundhouse C was built with a doorway facing south-east. The orientation of the doorways of structures D and H is not known, though that in structure H did not open to the south-east, where the wall of the building survived. The entrance ditches leading to roundhouse A were infilled, though the main entrance of roundhouse A was enhanced with an extended porch and a slab pathway leading to it. Wall 90010 was extended so that roundhouses B and C were almost entirely cut off from roundhouse A.

It was originally suggested that a straight wall (90120/90222) on similar alignment to wall 90010 created the north-east side to an enclosure around the settlement. However, as argued above, it is suggested that this wall was actually post-medieval in date and that the settlement was not enclosed on this side. There may have been a wall (90005) along the north-western side of the settlement running south-west from the end of wall 90010. This wall had been reused as a post-medieval field boundary but there were indications that it had earlier foundations. This wall ran towards a structure defined by postholes and an area of cobbling (structure 94016). The interpretation of this structure as a granary, or having any relationship to the settlement, is speculative, as it was poorly dated. However, the presence of two spindle whorls in this area is used to suggest that it may have been of Iron Age date. Possibly the wall continued to the south-west beyond this structure, enclosing the whole of this side of the settlement, but no evidence of this was found.

Although roundhouse E was demolished early in the life of the settlement the lowest course of its foundations remained and as these were formed of fairly large stones they stood up to 0.3m high. There had been no attempt to completely level the building. These remains must have been noticeable within the later settlement just to the east of roundhouse B. There seems to have been no significant reuse of this area, though some small pits interpreted by the excavators as intrusive post-medieval activity could have been from a low level use of this area during the later life of the settlement. However there was some activity further east that may have belonged to phase III. This included an arc of postholes, presumably representing a small structure (group 93073), though this appeared to be C-shaped and not circular, and might be a type of granary or storage structure.

There are some comparisons for the dividing wall and cobbled routeway to roundhouse A on other sites but none are very close parallels. At Gwern Engan, near Conwy, the settlement enclosure was divided by two walls, one separating two huts from the rest of the buildings, but these do not form a route through the settlement as at Parc Cybi (Lowe 1912, 201). Hughes and Lowe (1925) revealed a wall running from the inner entrance to the main roundhouse at Dinas, Llanfairfechan. Their excavation plans are combined with a full plan of the settlement in the Royal Commission Inventory (RCAHMW 1956, 119) providing the best plan of this wall, which is aligned NW to SE. The wall appears to have been straight along much of its length and, like at Parc Cybi, joins the main roundhouse to the entrance, but the lack of detail in the excavation report and small scale of the excavation makes it hard to compare these sites directly. Bryn Eryr had a track leading from the entrance of the enclosure to a yard in front of the roundhouses in the final phase of the settlement, though the track was flanked by ditches not a wall. This developed into hard standing outside house C but most did not have the dense stone cover seen at Parc Cybi (Longley 1998, 231, 241-244).

The wall in the Parc Cybi settlement divided the settlement, raising the possibility that different houses had different functions. Roundhouse A as the largest house and the one to which the cobbled routeway led could be seen as a special building, while the rest had domestic functions. The scarcity of features within roundhouse A, especially within phase IIa, once earlier features have been accounted for, suggest that it did have a different function. Roundhouse A may have been a place for meeting and socialising rather than living. Even if food was consumed there, it could have been brought from one of the other houses, although there was a fireplace in both phases of use. Possibly people came from across Holy Island to walk down the impressive entranceway and into the house to meet for social, political, religious or ceremonial purposes. Most likely whatever occurred there included elements of all these.

Granaries

Small square or rectangular structures were located next to the route leading to roundhouse B, to the west of roundhouse I and immediately east of roundhouse I. Some of these were demolished and rebuilt on a slightly different location or in a different form during the life of the settlement.

The four postholes to the east of roundhouse I probably held posts to support a small square timber structure (structure 93477). The postholes had large pad stones, which were carefully levelled. The structure was built on the made ground of the gravel platform and this may not have been entirely stable. Some of the postholes in roundhouse I also had pad stones. The large pad stones in the four postholes of structure 93477 suggest that this building was intended to carry a heavy weight. This supports the usual interpretation of these structures as granaries, as the stored grain would have been heavy and required a strong and stable structure to contain it. The location of this structure in relation to roundhouse I and the recovery of a spindle whorl from this area suggest this structure was contemporary with the main settlement. The granary was preceded by small stone structure represented by a wall only 3m long (93557). This was poorly built and it had collapsed before the granary was built. Its function is unclear but its position suggests that it was also a storage structure.

To the west of roundhouse I and near roundhouse B were small, almost square structures with 7 or 8 posts. Similar structures with between 6 and 9 posts appear to be relatively common on Anglesey, and some at least had stone pillars rather than wooden posts. The first to be carefully excavated and still to retain some of its stone pillars was dug by Chris Smith at Tŷ Mawr (Smith 1985, 30-33). This was a 7 post structure and still had 4 pillar stones in place. These were wedged by large packing stones and their tops were at the same height, which had been achieved by battering the tops to get them to the right level. The use of stone pillars, rather than wooden posts, supports the interpretation of these structures as granaries, rather than general storage structures, as the stones would resist damage by rising damp and pests and such raised floor structures on stone supports have been widely used across time and space for granaries.

The superstructure of these small buildings is best described by Smith (1985, 32). “We may picture baulks of timber running along each side with roughly cut mortices for each of the orthostats. These baulks could have functioned as sleeper beams and provided the bases for two parallel walls. The building is likely to have had a pitched roof supported mainly on wall plates but probably with tie beams, perhaps at either end. The gable end ... could have been closed by light walls of hurdling, one having an entrance. The floor probably consisted of boards resting on joists, which were themselves supported by the sleeper beams.”

There seems to be some evidence of working of the pillar stones. Those at Tŷ Mawr were battered on top to achieve the right height and five erect stones found by Stanley at the hut circles near Plâs Meilw “appear to have been worked like small round pillars” (Stanley 1869, 309-310). These were laid out to suggest that they were part of a similar small square structure and may survive reconstructed next to Ellen’s Tower near South Stack (PRN 80821). Similar upright stones were found near Pen y Bonc close to hut circles (Stanley 1869, 307, 310).

A 9 post granary was found at Cefn Du (Cuttler 2012, 21-23) near the main roundhouse and probably in use with its Roman period phase. Pottery and a radiocarbon date gave a Roman period date for the granary. A considerable quantity of charred cereal grains, mainly wheat were found around the structure. The granary had been rebuilt with smaller postholes on the same site. It is tempting to see this as stone pillars being replaced by timber posts but there is no firm evidence that the first phase had stone rather than timber.

An 8-post structure was recently found at Newborough (Evans and Roberts 2018). This had no firm evidence for having stone pillars rather than wooden posts. Bryn Eryr (Longley 1998, 238) had two almost square structures measuring up to 4.0 by 3.5m, with a possible third. Not all the postholes seem to have survived but they probably

had three postholes on each side of at last three sides.

All these structures were of a similar size being about 3m to 4.5m square or nearly square. All have 6 main posts, 3 on each side and the variable number of posts is due to varying numbers of extra supports. The presence of a central post or pillar on a third side suggests the need for extra support, but none of the structures have 3 posts on all four sides. There is often also a post to support the middle of the floor. If Smith (1985, 32) is correct and two walls supported most of the weight of the structure, the extra post on the third side may have provided extra support perhaps for a ladder for access. At Parc Cybi the supported third side of granary 93004 was adjacent to a stone surface from which it might have been accessed, but in structure 93003 the extra post was on the opposite side to a stone surface, giving contradictory evidence as to whether this extra post indicated the location of an access ladder. The middle post indicates the weight to be supported by the raised floor. The weight of grain is very considerable and in small medieval granaries posts or low walls were used to support the raised floors (Gardiner 2013, 32).

Structures 93003 and 93059 are of the same design and size as the other Anglesey granaries. The large packing stones in the undisturbed postholes suggest that they had stone pillars like that at Tŷ Mawr. The group 93004 structure is also very similar if slightly less regular and though it lacked the large packing stones the large size of the postholes might indicate stone pillars. The stone pillar with a tenon on top (sf729) found built into roundhouse A is of the right size to have been one of these pillar stones (volume 3 Fig VI.1.12). This has been roughly shaped into a rounded pillar and the tenon on top quite finely shaped, so that the rough mortices envisaged at Tŷ Mawr might have been precisely worked mortices to take well-worked tenons in the Parc Cybi granaries. Another possible pillar stone found at Parc Cybi (sf845) was lying over the top of its posthole, but this example was not worked.

There were two other structures on the site of a similar small size with large postholes located very close together. It has been argued above that these structures (93073 and 94016), found respectively to the east and west of the settlement (figure 65), may also have been granaries. The scale and layout of their postholes is suggestive of a similar function to the rectangular granaries to support a superstructure carrying considerable weight. They also had associated cobbled surfaces like many of the other granaries. Both structures were roughly C-shape in plan, in contrast to the rectangular granaries, but would function in a similar way to support a timber platform on which a superstructure could be built. The dating of both these structures was difficult and they could have functioned with either phases II or III of the settlement. Structure 93073 was immediately east of the settlement and would have been easily accessible from the back door of roundhouse B. If the pathway from the main entrance to roundhouse B had continued structure 94016 would have been located immediately next to it, like structure 93004. If the interpretation of these C-shaped structures as granaries is correct this suggests a focus for granaries around roundhouse B, with some being possibly displayed to visitors by being positioned next to the entrance pathway.

Most of the Parc Cybi granaries were part of a structural sequence; the four post structure (93477) replaced a stone structure (93557), granary 93003 replaced 93059 and granary 93004 replaced structure 94019. The last was not a typical granary structure, as it was larger and defined on one side by a foundation trench and on two other sides by posts with the fourth side apparently open. It was aligned north-west to south-east parallel to this main axis of the settlement and to the pathway to roundhouse B. That this structure was replaced by a granary and occupied a prominent place on the route into roundhouse B suggests that this was also a storage structure presenting the wealth of the settlement to visitors. Possibly, it also held grain but these were stored in a different way, perhaps hung in sacks from the beams of the building, like the hide flour bags that concealed warriors in the Mabinogion tale of Branwen Daughter of Llŷr (Jones and Jones 1963, 35-36). Alternatively, the possibility of this structure being essentially a threshing barn should be considered.

Granary 93004 was itself possibly replaced by a stone structure, as fragmentary stone remains were associated with a stone surface sealing 93004. The replacement of the granaries suggests that these had a limited life and required renewal. Although at Parc Cybi there were no stones *in situ* a stone (sf729) with a carved tenon on top had been built into the second phase of the entranceway to roundhouse A and this was the right size and shape to function as one of these pillars. The pillar may have come from one of the early granaries that were demolished, although why it was not reused in a later granary is not clear. Possibly the stone came from granary 93004 near roundhouse B, which must have been dismantled when part of it was covered by the later stone layer (92633) and possible stone structure, and was not replaced by another granary.

While the granaries suggest that cereals were an important crop there were remarkably few querns or mortars found

within the settlement. Roundhouses E and I contained grinding stones, and a cylindrical object from roundhouse C may be a cylinder quern, but there were few of the mortars commonly found in roundhouse settlements. At Tŷ Mawr mortars or stone basins were set into the floor and grinding or pounding stone were located near the hearths (Stanley 1869, 302, 304 Smith (current report, vol 3, part VI) suggests that at Parc Cybi either querns were removed when the settlement was abandoned, or grain processing was taking place elsewhere.

Proximity to the marsh

A notable feature of the siting of the settlement is its proximity to the marsh. Roundhouse I in particular was built overlying the very edges of the marsh and required a very considerable dump of earth to create a platform on which it could be built, avoiding flooding. The other houses also reused the existing stone platform or had their own platforms, and dumps and banks of stone were deposited along the eastern side of the settlement, possibly also to resist flooding. This represents a large investment in enabling the settlement to be located where it was, when situating it a little further from the marsh would have removed the problem. Proximity to the marsh therefore seems to have been very important in the location of the settlement.

The marsh would have been a source of water, though the pollen evidence shows that it was infilling with peat prior to the Mesolithic period and would have had relatively little in the way of open water. It could also have provided a variety of resources, such as reeds, alder wood for fuel and wildlife. There is no evidence of peat being used as fuel in the settlement, so this was probably not a factor. However, these resources could have been exploited without having the settlement so close to the edge of the marsh. The suggestion must be that the positioning of the settlement was not governed by strictly practical factors.

Rivers, lakes and marshes were important sites in the Iron Age for the deposition of objects for ceremonial or religious purposes as demonstrated at Llyn Cerrig Bach only about 6.5km away on Anglesey (Fox 1944). It is speculated that the marsh at Parc Cybi was also revered as a sacred site. The marsh was not directly impacted by the development and therefore was only explored in a limited way. There was no mass peat removal as would be necessary to locate any votive offerings or domestic rubbish. Evaluation trenches were dug into the edge of the marsh near the location of roundhouse I and revealed no finds. However, the pollen assessment revealed that the pollen sequence in the marsh ended in the Mesolithic period and upper layers were presumably removed by peat cutting in the post-medieval period. This activity would have removed artefacts as well as peat in those upper layers. If swords and spears had been recovered from the marsh in the 19th century it is almost certain that W. O. Stanley would have been informed of it. This suggests that either there were no votive offerings, or that they were found in earlier centuries and not reported to any authorities that might have recorded them. It is likely that the significance of the objects would not have been recognised and they would have been discarded as rubbish or melted down for reuse. Even in the 1940s the significance of the objects found at Llyn Cerrig Bach was not recognised until they were seen by a local schoolmaster, with the Iron Age slave chain famously being used repeatedly to tow vehicles out of the mud before its antiquity was identified.

It is not possible to argue that the Parc Cybi marsh was an Iron Age sacred site when no evidence survives and may never have existed. However, this would explain the otherwise awkward position of the settlement. The large size of the stone roundhouses, the orientation of doors and layout of the settlement may suggest that the Parc Cybi settlement was not just an ordinary domestic settlement. The finds show that the houses were inhabited and normal domestic tasks were undertaken, but it is possible that the settlement also had another role, and that its proximity to the marsh may have been part of that.

End of the settlement

The end of the settlement would seem to be undramatic. There is no evidence for houses being burnt down and most of the houses do not appear to have been deliberately dismantled. All the houses have suffered from stone robbing. All the collapsed stone from the remaining upstanding walls must have been removed for the building of field walls and presumably the nearby farmhouses, especially Pen y Lôn. The abandoned village contained a considerable quantity of stone and it must have caused an obstacle to cultivation of the field. It is likely that even smaller wall core stones were removed to assist ploughing. It may be that robbing started in the Roman period, but it is likely that most occurred in the 18th or 19th centuries, which is supported by the continued knowledge of the existence of the roundhouses into the middle of the 20th century (see below, post-medieval section). Prior to the excavation of the site enough stone had been removed for the remains to be largely beneath the level of ploughing and completely obscured by the ploughsoil.

Even when the walls had been reduced to this level stone robbing continued, as over half of the foundations of

roundhouses A and B were entirely removed, and pits and trenches dug into roundhouses B and E show where even some of the stone platform had been removed. The extent of this robbing shows that nothing above the tops of the surviving foundations can be considered as being *in situ*. The ground must have been repeatedly dug over to remove stones, as well as being ploughed once enough had been removed to allow access of the plough. Considering this, it is amazing how much has survived and how well-preserved the surviving archaeology was. This shows how much can survive of sites that have been deliberately levelled and then ploughed for generations.

Roundhouse E was demolished to foundation level during the life of the settlement as described above, and roundhouse I was probably also demolished in the Iron Age, presumably at the end of the settlement, but perhaps while some of the other houses were still in use. The wall of roundhouse I has not survived except as a foundation slot, yet the removal of the probable orthostats that were in that slot has caused little damage to the slot. It seems likely that recovering these stones through what may have been a considerable depth of ploughsoil built up over them during the post-medieval period might have caused more damage than was seen. In addition, a large grinding stone that was probably within reach of the plough and hit by it was not removed, suggesting that stone robbing did not take place in this area. That the building was dismantled in the Iron Age is supported by the porch postholes. In posthole 93162 stones had been packed into the void left by the post and in posthole 93165 the packing stones had been disturbed and redeposited in the upper part of the posthole. In Posthole 92971 heat-fractured stones had been used to fill the void after the post had been removed, while the fourth posthole had been excavated in an evaluation trench and not recorded in detail. This evidence for the removal of the porch posts and deliberate backfilling of the holes is indicative of Iron Age demolition, which presumably included the removal of the wall stones for reuse elsewhere.

Clay-walled roundhouses

The two clay-walled roundhouses in Area K7 (PRN 31595) provide a contrast to the stone-built village, in their construction technique and the fact that they were probably built sequentially, so each was quite isolated from other Iron Age activity. The drains in structure 80248 were so complex that it seems probable that these did not just have a routine domestic function, and this was probably not a domestic dwelling. However, like the stone houses, these were also substantial buildings, with internal diameters of 8m and 9m.

Hedges (2016, 130-132) has provided a useful summary of clay-walled roundhouses in north-west Wales (further summarised in table 15). Since he collected his data reports on several new clay-walled roundhouses have been published, and these have been added in table 15. Two of these sites indicate that the distinction between stone and clay-walled houses may not be as clear as often assumed. These structures (Structure S1 at Cefn Du and Structure S5 at Cefn Cwmwd are described respectively as having an “earth and rubble wall” (Cutler 2012, 11) and as “a roundhouse with stone footings” (Roberts *et al* 2012, 62). In both cases the internal face of the wall was revetted with stone facing. They would appear to be clay-walled roundhouses with a stone base to the wall. The stone roundhouse (house C) at Bryn Eryr (Longley 1998, 241-244) looks much like the stone-footed roundhouses at Cefn Cwmwd and Cefn Du. This is of significance in understanding structure 80248, where the stone facing did not survive, but the quantity of stone in the deposits originating from the collapsed walls suggests stone was used within the walls. It is probable that structure 80248 was also a clay-walled roundhouse with stone footings.

In roundhouses with no clay or stone footings surviving, the width of clay walls is often speculative and defined by the absence of other features. In some cases remains of the wall do survive, such as at house C, Pant, Llŷn, where traces of the wall 0.05m deep survived, but its line was further demonstrated by a band of raised sub-soil protected from ploughing by the wall over it. The wall in this case was c.1.6m wide (Ward and Smith 2001, 57). Some walls seem to have been up to 2.5m wide but many were a similar thickness to those of stone roundhouses (table 15).

The Parc Cybi clay-walled roundhouses were like the most of the stone-walled houses, in that they had no evidence for a post-ring to support the roof. It is assumed that the thickness of the wall was sufficient to take the weight of the roof. Some of the roundhouses listed in table 15 did have post-rings, so this construction technique was used with clay walls. Most of the examples either had no postholes inside the house or the postholes were scattered and not suggestive of a structural post ring. If postholes were shallow, or if posts rested on the ground or stone slabs, then in some of these cases, evidence of a post ring may have been lost to ploughing. However, at Parc Cybi, structure 80248 in particular was well protected by colluvium and had undisturbed layers over its floor level, so the loss of postholes or pads is unlikely.

Structure S5 at Cefn Cwmwd is also comparable to structure 80248 in that it had a very complex system of internal drains. Internal stone-capped drains seem to be most common in classic clay-walled roundhouses, but also occur

in some stone-walled roundhouses such as Rhiwgoch, Harlech (Kenney 2013). The clay-walled roundhouses S4 and S5 at Cefn Cwmwd buildings are quite comparable to structure 80248 in the complexity of their internal drains (Roberts *et al* 2012, 52-63). The drains in Melin y Plas house 2 were also complex, and at different phases it appeared that water may have been brought into the house from external gullies, as well as draining it out. House A at Bryn Eryr had a similar complex of drains, which had V-profile cuts and were capped by large flat stones (Longley 1998, 230). House C at Parc Bryn Cegin, also clay-walled, had a stone-filled pit at the end of the inner drain (Kenney 2009, 86).

The settlement at Mellteyrn Uchaf was Middle Bronze Age but most clay-walled roundhouses date to the Iron Age or Roman periods. The Cefn Cwmwd buildings both seem to have been built in the Late Iron Age and used into the Roman period and possibly beyond (Roberts *et al* 2012, 52-63). Melin y Plas House 1 was probably Late Iron Age in date with no use in the Roman period (Smith 2012). House A at Bryn Eryr was, however, of a Middle Iron Age date, like the two Parc Cybi buildings.

Table 15. Clay-walled roundhouses in north-west Wales based on data summarised by Hedges (2016, 130-132) with additional sites

Site Name	House Id.	Internal Diameter	Wall Thickness	Internal Posts	Entrance	Drains	Other	Date
Arfryn (clay-walled interpretation)		c.5.0m	c.1.0m	Post ring?	East. Porch within thickness of wall	No drains		Middle Bronze Age
Bryn Eryr	A	c.8.5m	2m	Post ring	East. Porch within thickness of wall	External drainage gully and complex internal drains		Middle Iron Age
Bryn Eryr	B	7m	1.25m	Post ring	East	Stone-covered internal drainage gullies		Later Iron Age
Bush Farm	B	c.7.8m	c.2m	Scattered internal postholes	ENE. Paired entrance posts	External eaves drip gully and internal drain		?
Cefn Cwmwd	S4	c.8m?	c.1m?	Scattered internal postholes	SE?	Complex stone capped internal drains		Late Iron Age/RB
Cefn Cwmwd	S5	5.6m	1.4m	Few internal postholes		Complex stone capped internal drains	Clay wall with stone footings	Late Iron Age/RB
Cefn Du	S1	8.2m	2m	Scattered internal postholes	SE. No porch	Internal drain.	Clay wall with stone footings	Late Iron Age/RB
Melin y Plas	House 1	6.8m	2-2.5m	Scattered internal postholes	?	Internal stone capped drain, external gully		Late Iron Age
Melin y Plas	House 2	c.9.5m?	c.2m	Scattered internal postholes	?	Very complex renewed internal drains		Late Iron Age /Roman period
Melin y Plas	House 5	c.6.5m?	c.1.5m	Possible post ring	SE?	Internal drain, drip gully		Roman period

Site Name	House Id.	Internal Diameter	Wall Thickness	Internal Posts	Entrance	Drains	Other	Date
Mellteyrn Uchaf	A	4.2m	c.2.5m	Single posthole	E. Porch within thickness of wall	Internal drain.	Wattle wall re-vestment	Middle Bronze Age
Mellteyrn Uchaf	B	5.5m	2.0m	Scattered internal postholes	E. Porch within thickness of wall	Eaves drip gully	Wattle wall re-vestment	Middle Bronze Age
Mellteyrn Uchaf	C	6.5m	1.5m	Scattered internal postholes	SE. Porch within thickness of wall	Eaves drip gully. Internal drain.	Stone re-vestment to wall	Middle Bronze Age
Pant	A	c.7.2m	c.1.4m	None	NE. Porch of 4 posts		Wattle wall re-vestment	Romano-British
Pant	B	c.7.8m	c.1.6m			Eaves drip gully	Wattle wall re-vestment	Late Iron Age
Pant	C	c.7.5m	c.1.6m			Eaves drip gully	Wattle wall re-vestment	Romano-British
Parc Bryn Cegin	A (phase II)	8m	1.4m		NW	“?” inner gully, outer gully		Iron Age/RB
Parc Bryn Cegin	C	8m	1.3m		NW?	“?” inner gully, outer gully		Iron Age/RB
Parc Bryn Cegin	H	7m	1.3m	No internal postholes	?	Completely circular inner drain		Iron Age/RB

Dating

The Welsh Roundhouse Project collected 428 radiocarbon dates from 72 sites, though directly dated houses came from only 39 different sites and most of those were only dated by a single date (Ghey *et al* 2007). The project used data up to 2005 and other settlements have been dated since then, some using Bayesian analysis to improve the precision of the dates (Kenney 2013).

It is difficult to compare the main Parc Cybi settlement to others in the immediate area because so few have any dating evidence. The Tŷ Mawr settlement is the best dated. Smith obtained radiocarbon dates from the parts of Tŷ Mawr that he excavated. Two dates were obtained on marine shells from a midden later than building S (400-0 cal BC (HAR-5403) and 350 cal BC-cal AD 130 (HAR-5404)⁵⁷ (Smith 1985, 33). Two smaller, later structures appeared to be Early Medieval in date (Smith 1985, 38, 40), indicating reuse of the area. Building T1 is dated much earlier from dates on two hearths, one under and one cut through an occupation deposit that had built up against an enclosure wall. The dates were 2580-2140 cal BC (HAR-4695) and 2920-2490 cal BC (HAR-4694)⁵⁸ (Smith 1985, 20, 21), which makes them very early for a typical stone-built roundhouse. Smith (1985, 20, 21) originally related the dates to the roundhouse because the enclosure wall clearly abutted the roundhouse, but the dates forced him to reassess the stratigraphic evidence, which he admitted might be ambiguous (Smith 1987a, 24). The hearths and dates might therefore relate to an earlier phase of activity.

Stanley found 12 Roman coins, considered to date to latter half of second century, in building C at Tŷ Mawr (Stanley 1869, 305) but Smith suggest that this is the only Roman material to come from the settlement. There was no Roman pottery and the “rude pottery” found by Stanley seems likely to have been hearth lining (Smith 1986, 54), or possibly fragments of Cheshire Salt Containers. If the coins were from a hoard hidden in the abandoned settlement then there is little evidence of the settlement being used into the Roman period. Smith suggests that 3 buildings may have been used during the 3rd and 4th centuries AD, but that most of the settlement was not Romano-British. Tŷ Mawr is interpreted as 8 distinct homesteads or farmsteads of different periods, parts at least of which

⁵⁷ Recalibrated. 2560 ± 80 BP (HAR-5403) and 2440 ± 70 BP (HAR-5404), with -405 as the correction for marine shells

⁵⁸ Recalibrated. 3890 ± 80 BP (HAR-4695) and 4170 ± 80 BP (HAR-4694)

continued in use into the Early Medieval period (Smith 1987a, 27, 29).

Other sites excavated at Parc Cybi provide the best dating evidence to place the main village in its contemporary landscape. The two clay-walled roundhouses also proved to be Middle Iron Age in date, activity here beginning probably in 450–400 *cal BC* (68% probability) and ending probably in 350–255 *cal BC* (68% probability). The first of these buildings may have been built shortly before the stone-walled roundhouse settlement but they were probably in use at the same time as the village. The proximity of these sites would suggest that they were used by the same community.

Although not as well dated it appears the small, probably short-term occupation represented by pits and postholes in Area I (PRN 31598) was also roughly contemporary. The dates of 390–200 *cal BC* (SUERC-81341) and 420–230 *cal BC* (SUERC-83271) cannot be used to narrow down occupation at this site but it must have been at some time when the main village was in use. This outlying structure may have provided shelter for a specific task or a home for an individual or family not included in the main village. The presence of a spindle whorl, earth oven and hearths perhaps indicates the latter.

The small structure 22171 (PRN 31593), with its adjacent pits, was located closer to the village but was probably used in the Late Iron Age, long after the main village was abandoned. The Late Iron Age date is suggested by the one reliable date from the structure (60 *cal BC*–*cal AD* 60 (SUERC-87072)) and dates from the pits (60 *cal BC*–*cal AD* 70 (SUERC-83280), 200–40 *cal BC* (SUERC-83281) and *cal AD* 20–210 (SUERC-83285)). There was probably very little other settlement activity on Parc Cybi at this time but presumably the area was still farmed from a settlement elsewhere.

The Middle Iron Age date for the main Parc Cybi settlement clearly demonstrates that not all Iron Age settlements continued in use into the Roman period or started in the Bronze Age, though, as discussed above, this settlement did reuse an Early Iron Age site. The area of Parc Cybi was busy in the Middle Iron Age with other roughly contemporary buildings in use, but seems to have been largely abandoned for settlement in the later Iron Age. This suggests that the main settlement had shifted location, though it is possible that it did not move very far, as the evaluation of Area K5 suggested there may have been roundhouses there, which potentially could represent the new village location.

The extensive and rigorous dating programme carried out on the Parc Cybi village demonstrates the precision that can be achieved for the Iron Age, despite problems with plateaux in the calibration curve. This kind of precision is necessary to understand which roundhouse settlements were contemporary and how their distribution and density changed through the Iron Age. Only by more dates on these sites can chronology be clarified and understanding advanced from the current situation where most sites are bulked together as Iron Age/Romano-British.

Roman Period

Building complex in Area K9 (PRN 31596)

Structure 80526

The group of buildings in Area K9 were used in the late 3rd or early 4th century AD, with some hints of earlier activity on the site and two early medieval corn dryers cutting through the remains of the collapsed buildings. The buildings comprised a square stone structure (structure 80526), a clay-walled industrial structure (structure 80527) and numerous post-built storage structures, as well as another slight circular hut. These numerous buildings probably formed part of a farmstead located next to a trackway across the fields. However, some features, particularly structure 80526, are unusual for a simple farmstead.

If structure 80526 can be correctly interpreted as a square stone building, about 5m by 5m internally, it appears more similar to buildings used as watch towers or shrines than agricultural buildings. There are two local Roman examples that might provide comparisons. At the site of Capel Eithin (PRN 2746) on Cefn-du Mawr Farm, Llanfihangel Ysceifiog, Anglesey, the foundations of a small square stone building were excavated (White and Smith 1999, 116–124). The boulder foundations were laid in a foundation trench, and no trace of the superstructure survived. The structure (building 194) was 6.5m square externally and 3.6 by 3.2m internally. The foundation trench was between 1.3 and 1.6m wide and there was no entrance at foundation level. The building was near the middle of an area defined by a low sub-circular bank. Adjacent to the building were pits with charcoal-rich deposits containing fragments of clay moulds and other evidence of small scale metal-working. Partially under

one corner of the building and sealed by it was an oval pit measuring 4.8m by 2.7m and 1.25m deep, largely backfilled with stone and with a possible post socket in its base. Finds from the foundation trench and from the adjacent pits, including a small number of samian sherds, suggested a date in the late first or second centuries AD. The authors considered that this may have been a Romano-Celtic temple but concluded that it was more likely to be a Roman military watch tower or signal station.

Closer to Parc Cybi another Roman watch tower was excavated on the summit of Holyhead Mountain (PRN 3809) (Crew 1980 and 1981a). The stone footings of the tower survived and measured 5.85m square externally, with traces of the tower wall on top indicating that it would have been 5.45m square (Crew 1981a, 35). The footings as well as the remains of the wall had facing stones. There was probably another Roman watch tower at Pen Bryn-yr-Eglwys (PRN 2514) on the summit of Carmel Head, Anglesey (Crew 1981b), but an evaluation trench dug in 2012 suggested that the stone of this structure had been heavily robbed out, so it is of little use as a comparison to structure 80526 (Hopewell 2013, 1-3). However, a size of 9m square is estimated for the original structure at Pen Bryn-yr-Eglwys.

The structures at Capel Eithin and Holyhead Mountain were slightly smaller than the proposed size of structure 80526, though Pen Bryn-yr-Eglwys may have been larger. The width of the footings at the first two sites are generally wider, perhaps suggesting that structure 80526 was not such a tall building as the watch towers. The large pit under the Capel Eithin structure is reminiscent of pit 81041 under structure 80526, although they are not similar in detail and it is probable that pit 81041 was in use with structure 80526, whereas the pit at Capel Eithin had clearly gone out of use when the building was constructed. The wall footings at Holyhead Mountain, with their facing stones, do seem quite similar to the surviving section of wall of 80526.

A square feature in the middle of Caer Leb, Llanidan, might also be worth mentioning. At about 13m square it is much larger than the Parc Cybi structure but produced enough finds to establish a Roman date (Williams and Pritchard 1866). The square structure appears on Williams and Pritchard's plan of the site but it is not discussed in the text, and it is not certain that it was a stone walled structure. The investigation of this site was done by small trenches in the middle of the 19th century, so information is limited and it can add little to the discussion other than showing that another square structure did exist in a Roman period settlement on Anglesey.

Structure 80526 does seem quite similar to the watch towers mentioned above but its position would seem to rule out this interpretation. It was in a hollow with some view to the north-east but if it had been positioned only about 60m to the north-west it could have stood on top of a low knoll with much better views. The choice of the hollow suggests that the visibility of the building or the views from it were not a consideration in its function.

While White and Smith (1999, 154-155) prefer the interpretation of the Capel Eithin structure as a signalling station and support this with the presence of at least one military item and the extensive views, they do also discuss its similarity to Romano-Celtic temples. Longley (2009, 120) also argues that the interpretation of the Capel Eithin structure as a shrine is plausible, with the bank around it as its *temenos* or ritual enclosure.

The typical square Romano-Celtic shrines have a central *cella* surrounded by an ambulatory, such as at Caerwent and Carmarthen (Arnold and Davies 2000, 129), but there was no sign of the latter at Parc Cybi. At Uley, Gloucestershire a typical stone temple with *cella* and ambulatory was suggested as being preceded by a timber structure, 8.2m square, the same size as the later stone *cella* and on the same location (Woodward and Leach 1993). If structure 80526 was about 7m square externally, it would not have been much smaller than the Uley structure. The similarity with Uley is stronger because at this site in the centre of the *cella* was a pit (pit F19). The authors argue that this may have predated the Romano-Celtic temple and could originally have held a post or stone, but in later phases, when it was inside the *cella*, may have held a lead basin to hold water. The stone capping over pit 81041 at Parc Cybi, and the fact that at least part of this pit was sealed under the floor of the structure, make this pit quite different, but its position is similar to Uley. Perhaps it also held water, but was more of a shallow well than a tank or basin. At Uley the function of the structures was unquestionable because of the quantity of votive offering from the site. Uley also had a whole complex of buildings around the temple. These were impressive rectangular stone buildings including possibly domestic accommodation, a hostel and baths and possibly shops. On a smaller scale, and following an Iron Age rather than Roman architectural tradition, it might be possible to see the structures around structure 80526 as a similar complex with similar functions, but the absence of any objects that could be interpreted as votive prevents the interpretation of structure 80526 as a shrine with any confidence.

The Roman Rural Britain project identified possible Iron Age or Romano-British shrines in north-west Wales,

most of which are very debatable as shrines, including Bronze Age cairns on Tre'r Ceiri and Braich y Ddinas and a Late Iron Age pit circle at Cefn Cwmwd, Rhostrehwfa interpreted by the excavators as a domestic structure (Roberts *et al* 2012, 37-41). With the exception of the Capel Eithin structure, there is a lack of examples of possible Romano-British shrines in north-west Wales. Either there were shrines were not used in this area or they are difficult to identify. With no votive objects the argument for structure 80526 being a shrine is no more convincing than for these other examples.

Structure 80527

Structure 80527 can be most closely paralleled by a structure (S3) found at Cefn Du (Cuttler 2012, 21). This had a wall defined by an arc of burnt daub and had an internal diameter of 5.5m. A stone-capped gully ran out of the interior to the west and it had a rectangular pit containing a large quantity of non-ferrous slag. The building had been destroyed by fire between AD 200 and 240 according to an archaeomagnetic date. This was less complex than structure 80526 but seems to have been similar in character, although smaller, and at least approximately in date. Structure S3 was part of a small settlement with roundhouse and granary and it supports a similar context for Structure 80527.

The boulder hearth can be compared with four 'furnaces' found at Cefn Graeanog (Hogg 1969, 11-12, plate II). Detailed plans of these are not published but from the photograph they appear to have been built of boulders in a similar way to the Parc Cybi hearth, though it seems that they were set into pits with the top of the boulders at the ground surface. The 'furnaces' are described as being in slight post-built 'sheds', suggesting that they were inside structures like at Parc Cybi and 'furnace 2' even had a mortar adjacent to it reminiscent of stone bowl sf6149. The discovery of "scraps of slag" (Hogg 1969, 11) in and around the furnaces suggested their function to Hogg, but he states that "None [of the 'furnaces'] were heavily burnt" and proposes the existence of smelting hearths further north on the site, which might account for the slag, so it is not certain that these structures were furnaces. The activity with the 'furnaces' was dated to before 140-180 AD (Hogg 1969, 12), so this was significantly earlier than at Parc Cybi.

A possible farmstead

It is probable that instead of a shrine complex this group of features represents storage and industrial activity as part of a farmstead. If so it would seem to lack a dwelling, unless group C is a domestic structure, though this seems too small for a dwelling to accompany the extensive complex. There remains the possibility that the timber roundhouse (PRN 31588), which is only about 10m to the north-west could possibly be contemporary with this activity. A 4th century AD roundhouse is not impossible as a roundhouse formed the main building at Din Lligwy (Baynes 1908 and 1930), though this was of stone. The Parc Cybi timber roundhouse would have provided a dwelling suitable to a farmstead with extensive storage and industrial activity, but there is no evidence, other than proximity, to suggest such a date for this building. It is highly possible that the farmstead extended under Lôn Trefnath and this is where any dwelling might have been. This site is so full of detailed evidence that it is frustrating that its function cannot be more clearly interpreted, but the most likely interpretation must be that this is part of a complex farmstead, with the remainder lost under the road.

Trackway

The farmstead was located on a trackway, which appeared to run through the fields, heading towards the Roman fort. This track was clearly not a Roman road, as it was not built-up into an *agor* and was much more sinuous than usual for Roman military roads. This track does seem to have been used in the 4th century and it could have been contemporary with the fort, to which it may have led. It is normally assumed that if there had been a Roman military road on Holy Island it would have used the ford at Pont Rhydbont (Four Mile Bridge) and would have passed close to Parc Cybi. The presence of this track may indicate that there was no military road and that only local routes ran to the fort from the hinterland, with possibly other routes across the sands being employed rather than the narrowest ford. Ogilby's map of the London to Holyhead Road (figure 5) suggests that although there was a bridge in the 17th century there were also other routes across the sands, one of which was considered as the main route.

Such trackways might be assumed to join many settlements, though they are quite rarely found. The site of Cefn Cwmwd had a trackway in the form of a metalled surface 2.6m to 4m wide running past the two main roundhouses (Roberts *et al* 2012, 50). The houses were used into the Roman period so the trackway could have been in use at the same time as the Parc Cybi track. At Cefn Cwmwd the track ran south-west to north-east in the excavated area, suggesting it ran along the ridge on which the settlement was built, as this has the same alignment. To the north the ridge runs to the Afon Cefni just north of Llangefni, perhaps suggesting that the track was part of

a route around the Malltraeth Estuary.

Just across the Inland Sea at Cleiflog Uchaf near Valley a length of road was found (PRN 16047). This was c.6m wide with a ditch on either side, with traces of a fence on the north-east side. The road ran north-west to south-east towards the coast and was wide enough to be a Roman military road. A Roman date was suggested by a sherd of 1st or 2nd century mortarium recovered from a feature above the road (Davidson 1999). However Hopewell (2007, 3) considers that, while it may be of Roman date, this road did not display the typical features of a Roman military road. The evidence from Parc Cybi suggests that there may have been other constructed trackways in the Roman period, not just military roads.

It is likely that much of the landscape was covered with fields during the Iron Age, some defined by walls and some by ditches as seen at Parc Cybi, with lynchets forming on steeper slopes. The duration of fields in the area was indicated at Tŷ Mawr, Southstack, where lynchets up to 1.6m high were investigated associated with the Iron Age roundhouse settlement, suggesting that they had built up over a long period. In the example investigated the ploughsoil had built up against stone field walls to initiate the formation of the lynchets and plough marks were found to prove that the field had been ploughed (Smith 1985, 42-46). It seems likely that the field system in Area J was laid out before the Roman period. As the trackway appeared to be an integral part of the field system that too may have been Iron Age in origin.

Cemeteries Spanning the late Roman and early medieval periods

Long cist graves are assumed to be Early Medieval in date and a considerable number have been found on Anglesey, see table 16 and figure 153. Longley (2016, 165) points out that while the number of recorded Early Medieval burials from Anglesey may appear low compared to contemporary Anglo-Saxon England, comparison of density per square mile actually places it as one of the highest density. The actual density must have been very much higher than reflected by recorded graves, as archaeological work in advance of developments regularly reveals new cemeteries.

It appears that Anglesey had few very large cemeteries but small and medium sized cemeteries were probably very frequent. However, as in most cases the full extent of the cemetery was not investigated, it is hard to establish cemetery size. Some antiquarian reports mention an unspecified number of other burials that were suspected or had been previously seen, so it is likely that many cemeteries were larger than the reported burials, and a small number were much larger. Tywyn y Capel at Trearddur Bay was much the largest, with 400 burials estimated in its uneroded form, buried in two main phases (Davidson 2009). Other cemeteries contained about 100 graves, including Arfryn and Capel Eithin with two recently discovered cemeteries near St Iestyn's Church, Llanddona and St Peter's Church, Llanbedrgoch (Evans and Jones 2019) held about 45 and 55 graves respectively but in both cases the full extent of the cemetery was not seen and they were certainly larger. With 43 graves the Tŷ Mawr cemetery (PRN 11048) was also one of the medium sized cemeteries, but in this case almost all of the cemetery had been revealed, so this was probably its full extent (Kenney and Longley 2012). The Parc Cybi cemetery, with 23 graves, can therefore be seen as one of the smaller cemeteries, and in this case it can be certain that the limits of the cemetery were found. The Parc Cybi cemetery has all the characteristics of these Early Medieval cemeteries; ordered rows, long cists and burials interpreted as having timber cists, and a generally east-west alignment. Yet the dates that have been obtained suggest, as discussed above, that the cemetery is late Roman in date.

In Scotland stone-lined graves existed in the Iron Age, though these were not always long cists; dated long cists are most common from 5th to 7th centuries AD (Maldonado 2013, 5-6, 14). Maldonado (2013, 18-19) quotes a date of cal AD 250-530 (SUERC-2985) from a human bone from the cemetery at Ackergill Links, Caithness, which had long cist graves. However, although this date is very similar to the Parc Cybi dates the cemetery had cairns over the cists, as well as more complex features and was associated with two Pictish symbol stones, showing that this came from quite a different tradition to that assumed for the Parc Cybi cemetery, developing in an area under Roman influence.

Pollock (2006, 74) shows that by the 4th century AD extended inhumation burials were fairly wide spread in South Wales and 'managed' cemeteries with east-west alignments and orderly rows were developing. A date of cal AD 20-240 (WK 12241⁵⁹) was obtained from a long cist grave from the small cemetery of Abernant, Kemeys Inferior, Monmouthshire (Tuck 2003). The date was on a piece of wood found next to the body rather than on human bone, so there may be some old wood effect in the date, but even so it does suggest a Roman date. The nearby

59 Wk 12241: 1883±44 BP

small cemetery with four slab-lined graves at Great Bulmore was probably 3rd century AD in date, but has no radiocarbon dates (Pollock 2006, 198).

Llandough, Powys (Holbrook and Thomas 2005), due to bone survival, has a good suite of dates, and the earliest dates directly on skeletal remains were 370-640 cal AD (Beta-76463), 360-670 cal AD (Wk-6938) and 430-690 cal AD (Wk-7021⁶⁰) (Holbrook and Thomas 2005, 41). These dates do extend into the 4th century but they have fairly large errors, and so also extend into the 7th century. Roman artefacts from the grave fills had led the excavators to believe that some of the graves could be late Roman but the radiocarbon dates do not unequivocally support this (Holbrook and Thomas 2005, 86). Nor were the early graves in this cemetery classic long cists, though some had rough stone linings, so the cultural traditions are uncertain.

There were Roman dates from slab-lined graves at Biglis, Vale of Glamorgan (Parkhouse 1988, 16). A date of cal AD 50-380⁶¹ was obtained on an east-west aligned grave and cal AD 410-650⁶² on one inserted in a corn dryer and aligned north-south. Stratigraphy and finds indicated that the actual date of the former was sometime after AD 270 and the latter was mid 4th century, despite the radiocarbon date suggesting otherwise (Parkhouse 1988, 31). The Atlantic Trading Estate cemetery also had good bone preservation and therefore a good number of dates directly on human remains. Two of these dates are late Roman (cal AD 130-530 (CAR-1087) and cal AD 240-540 (CAR-1088)⁶³), with others slightly later (Longley 2009, 109; James 1992, 97, 103), suggesting the cemetery started in the Roman period and continued into the Early Medieval period. The cemetery included slab-lined graves and all the graves were orientated close to east-west (Price 1987).

Pollock (2006) found no conclusive evidence of late Roman extended inhumations from North Wales, though there have been some suggestions of Roman graves. A grave at Capel Eithin was suggested as being of Roman period. It appears to have been a timber cist grave with small packing stones around the sides. It was slightly isolated from the other Early Medieval graves on the site and close to the Roman period square stone structure, which is why it is suggested as being Roman. It was aligned rather more towards the north-east than most, but not all, graves in the main cemetery. However, it is not impossible that this was an outlier to the main cemetery and was not Roman in date (White and Smith 1999, 120-122). The central grave in the mortuary structure at Capel Eithin did produce a Roman period date but this is clearly explained by old wood effect. The date of cal AD 0-330 came from one edge of a plank in the base of the grave, while a date of cal AD 670-1150 came from the other edge⁶⁴ (White and Smith 1999, 145). This was clearly a radial plank from a large tree with the heartwood many centuries older than the sapwood and the later date gives the best approximation of the felling date. This date, therefore, cannot be used to suggest Roman period use of this cemetery.

Pollock (2006, 75) suggests that a small number of near north-south aligned graves at Arfryn, Anglesey were much earlier than the Early Medieval east-west aligned graves. However, the final excavation report explains these as radially aligned around a founder grave and a ring mound that formed the focus of the cemetery (Hedges 2016, 156). There would be no reason, therefore, for these graves to be older than the rest of the cemetery. At Segontium an Early Medieval cemetery (Kenney and Parry 2013b) was located close to the Roman cremation cemetery, but in this case there was no continuity of burial tradition.

The evidence for Roman inhumation burials in north-west Wales is therefore very slight. However, there are two convincing Roman inhumation burials from north-east Wales. Two north-south aligned graves were found at Pentre Farm, Flintshire; one lined with tiles and the other with dressed sandstone blocks (Granger 1989). Both the tiles and the sandstone were not used on the site before AD 150, so the burials dated from that date or later. The grave lined with sandstone also had a covering of reused lead sheeting, one piece of which was decorated. These Roman inhumation burials support Pollock's contention that long cist graves began to appear in North as well as South Wales in the 3rd century AD (Pollock 2006, 97).

The dates (cal AD 330-530 (SUERC-81362) and cal AD 250-410 (SUERC-81363)) from the smithing activity in the Parc Cybi cemetery are comparable to some of these earliest dates from South Wales. Considering that the Parc Cybi dates are from a feature used for a secular purpose dug into a grave, presumably after the cemetery was long out of use, this implies a 4th century date at the latest for the cemetery. Unlike the southern examples the Parc Cybi cemetery was not close to a fort or along a Roman road, though the Roman period trackway described above

60	Beta-76463: 1570 ± 70 BP, Wk-6938: 1530 ± 80 BP, Wk-7021: 1450 ± 55 BP
61	1830 ± 65 BP recalibrated; publication gives no lab number
62	1515 ± 65 BP recalibrated; publication gives no lab number
63	Recalibrated CAR-1087: 1710 ± 60 BP, CAR-1088: 1670 ± 60 BP
64	CAR-483: 1870±60 BP; CAR-484: 1120±90 BP, recalibrated at 95.4% probability

ran at the foot of the hill on which the cemetery was located. The cemetery would appear to represent the local people taking on late Roman burial traditions. That the Holyhead fort was only 2km away in the 4th century does provide an origin for these traditions, which perhaps suggests close links between the local population and the fort. It also raises the question, now unprovable, about the date of cist graves found in the 19th century outside the fort. These graves were in a typically Roman position in relation to the fort and this could indicate that they were also of Roman date and not Early Medieval.

The evidence from Parc Cybi suggests that some of the known Anglesey long cist graves could be Roman in date. There is considerable difficulty in dating these cemeteries when bone so rarely survives. The opportunity needs to be taken to obtain as many dates as possible where human remains do survive to attempt to detect any other early graves, and improve the understanding of the development of these cemeteries in North Wales.

Another aspect of the Parc Cybi cemetery is its position. It was located on a small but prominent hill that closely resembled a large barrow. The hill was entirely natural. Its shape was similar to a drumlin but rock visible on top suggested that it was a rock outcrop shaped by the dumping of glacial material over it. The resemblance of the hill to a barrow seems not to have attracted attention in the Bronze Age, when the genuine barrows seem to be positioned with no reference to it. However, the careful positioning of the long cist cemetery on the very top of the hill makes the author suspect that the people who created the long cist cemetery believed that it was a barrow. Barrows and cairns seem to have commonly been used as foci for long cist cemeteries. Six of the cemeteries on Anglesey were dug into or near barrows or cairns (Porth Dafarch, Treiorwerth, Capel Eithin, Ty'n-y-pwll, Ty'n Coed/Merddyn Gwyn and Tŷ Mawr) and at Arfryn the remains of a roundhouse may have been mistaken for a mound. The tradition is also seen across Wales with long cist burials in barrows at Trelystan (Britnell 1982) and Four Crosses, Powys (Warrilow *et al* 1986). The use of this knoll for burial might be seen to link in with the other burial mounds and cairns in this area, including the Trefignath Tomb and the barrows further north in Parc Cybi and at Tŷ Mawr, possibly reflecting an acknowledgement of the antiquity of human activity in the area. The absence of any evidence of a church or chapel in the area is normal for long cist cemeteries, as although in some cases churches or chapels were later built on or near the site of cemeteries, most cemeteries have no relationship to chapels (Longley 2009, 124-5).

Table 16. Early medieval cemeteries and graves on Anglesey

PRN	Site Name	No. of graves	Community	NGR	Bibliography	Notes
1776	Cemetery, Porth Dafarch	4	Trearddur	SH23408010	Stanley 1876	Graves in earlier barrows
2001	Cist Grave Cemetery, Towyn y Capel	127 (possibly up to 400)	Trearddur	SH25607900	Davidson 2009	
2028	Cist Burials, Carreglwyd	5	Llanfaethlu	SH31018719	Stanley and Way 1868, 255	
2029	Cemetery, Hen Shop	5+	Llanfaethlu	SH31938729	Griffith 1895	
2040/7309	Cist Burials, Pen-y-graig, Llanrhyddlad	4	Cylch-y-Garn	SH30578947	Baynes 1935	
2063	Cemetery, Arfryn, Bodedern	118	Bodedern	SH34158000	White 1971-72; Hedges 2016	Cemetery over a Bronze Age roundhouse and enclosure
2080	Cist Burials, Site of, Llechcynfarwy	9	Tref Alaw	SH38108108	Baynes 1935	Standing stone possible focus for cemetery
2084	Barrow, Treiorwerth, Presaddfed	3	Bodedern	SH35448051	Lynch 1971	Burials inserted in barrow

PRN	Site Name	No. of graves	Community	NGR	Bibliography	Notes
2557	Cemetery, Site of, Penmon	Unspecified number	Llangoed	SH62938072	Anon 1847	Unspecified number of graves
2680	Cist Burials, Possible Site of, Llangefni	About 30	Llangefni	SH45657531	Gomme 1887, 401 Llwyd 2007, 134	Exact site not identified
2730	Cemetery, Capel Eithin	102	Llanfihangel Ysgeifiog	SH49007270	White and Smith 1999	Burials near cairn and possible barrow
3078	Cist Burial, Rhuddgaer	1	Rhosyr	SH44556426	Williams 1878	
3530	Cemetery, Site of, Llanrhyddlad (Cefndu Mawr)	Unknown number	Cylch-y-Garn	SH32509021	Baynes 1935	
3545	Cemetery, Peibron Farm, Amlwch	At least 4	Llanbadrig	SH40559375	RCAHMW 1937, 38	
3606	Burial, Site of, Benllech	1	Llanfair-Mathafarn-Eithaf	SH52188248	Edwards 1985	
3608	Cemetery, Site of, Ty'n y Felin Quarry	5	Llanfair-Mathafarn-Eithaf	SH51298192	Johns 1956	
4356/ 7313	Barrow, Ty'n-y-pwll, Llanddyfnan	1	Llanddyfnan	SH50897846	Baynes 1909, 324; Johns 1956	Burial inserted in barrow
5576	Barrow, Site of, Ty'n Coed, Pentraeth (or Merddyn Gwyn)	1	Pentraeth	SH52107880	Hughes 1908	Burial inserted in barrow
5585	Cist Burials, Rhos-y-gâd Farm	4	Pentraeth	SH51007900	Hughes 1904	
6894	Early Christian Burials Beneath Eglwys y Bedd, Holyhead	1	Holyhead	SH24708260	Llwyd 2007, 101	
7310	Burials, Site of, Puffin Island	6+	Llangoed	SH65208220	Hughes 1901, 98-103	
7314	Early Christian Burials, Llanbedrgoch	Unknown number	Llanfair-Mathafarn-Eithaf	SH51107920	Edwards 1986, 31	
11048/ 69281	Tŷ Mawr Cemetery, Holyhead	43	Holyhead	SH25168130	Kenney and Longley 2012	Cemetery over round barrow
11925	Cemetery, Trefollwyn	6+	Llangefni	SH44967730	Davidson <i>et al</i> 2002, 46-48, 73-77	Square ditched mortuary enclosure
31287	Cist Cemetery, NW of Tregarnedd Fawr	7+	Llangefni	SH47137525	Davidson <i>et al</i> 2010, 19-21	

PRN	Site Name	No. of graves	Community	NGR	Bibliography	Notes
31600	Cist Cemetery, Parc Cybi	23	Holyhead	SH25648084	This volume	
60985	Cemetery, Llanddona	47	Llanddona	SH58567955	Evans 2017, Evans and Jones 2019, 146	Mortuary enclosure
80275	Cemetery east of St. Peter's Church, Llanbedrgoch	53	Llanbedrgoch	SH50967984	Evans and Jones 2019, 146	

NB. Other cemeteries have recently been found near Llangefni and Wylfa but these are not yet published and they have not been included in this list or on the map.

Roman Holy Island

Figure 154

The fort at Holyhead (PRN 1762) was probably a late construction, dating to the 4th century AD (RCAHMW 1937, 31-34; Hopewell 2010, Jarrett 1969, 135-137). It is assumed to be contemporary with the signal station (PRN 3809) on the summit of Holyhead Mountain (Crew 2010). This implies that direct Roman influence came to Holy Island late. This late Roman influence is seen in the coin hoards. There are seven hoards or collections of Roman coins from Holy Island (PRN 1757, 1759, 2502, 2503, 2508, 2012 and from the signal station (PRN 3809)), as well as three findspots of single coins from Holyhead (PRN 3799), Dinas on the west coast (PRN 1748) and from Tre Hwfa (PRN 1768). There were 24 coins from the signal station, 15 found together under a stone suggesting a hoard and one embedded in the mortar of the building; all 4th century (Crew 2010). Hoard PRN 2012 supposedly consisted of 13 coins found in 1839-40, though differences in patination suggest that only 8 coins belong together as a hoard (Lynch 1986, 79). The findspot of these coins is only described as 'Trearthur', so it is not known if they came from the village or possibly from near the chambered tomb of Coetan Arthur, close to which another coin hoard (PRN 2502) was found in 1837 or 1843. This consisted of more than 300 small Roman coins found in an urn in a field next to the tomb (Stanley 1867b, 234; Stanley 1868, 396).

Ten or 12 gold coins of Constantine (PRN 1759) were found on the east site of the hillfort of Caer y Twr around 1820, while digging peat (Stanley 1868, 396). Roman coins were found at Penrhos (PRN 2508). Stanley (1868, 396) describes a single copper alloy coin of Constantine found in 1852, but Baynes describes three found in 1852 while laying grass in front of the house and three more found in 1854 (Baynes 1929, 31). Seventeen copper coins were found in a brass vessel at Penrhos Isaf in 1710 (PRN 2503, Baynes 1929, 31), though the location of Penrhos Isaf is uncertain and the coins may have been found much further from Parc Cybi than shown on figure 154.

The coin (PRN 1748) from Dinas was an antoninianus of Carausius, and a coin of Tetricus I is said to have come from Holyhead (PRN 3799); both coins are late 3rd century. In addition a Roman coin (PRN 1769) was reported to have been found in the roundhouse settlement at Tre Hwfa (PRN 1768), but there is no description given of the coin (Williams 1950a, 54).

All the above coins and hoards are 3rd or 4th century, with late 4th century being a likely date for the deposition of the hoards. Most of the coins were low value copper alloy coins, with the exception of the hoard of gold coins from Holyhead Mountain. This is a high density of coin finds for Anglesey and demonstrates the influence of the fort, suggesting a monetary economy on the island at this time. The lack of any coins from Parc Cybi therefore seems unusual. In particular, the absence of coins from the 3rd to 4th century activity in Area K9 would seem to be a significant absence, as coins were available for use in the area. That coins were not used is evidence against any trading function for the storage buildings and industrial activity, and probably rules out the suggestion that the square stone building (structure 80526) could be a shrine.

Another find emphasises Roman influence in the 4th century; a small bronze statuette of a naked youth with a short sword was found in 2009 near Rhoscolyn. This is assumed to be minor Roman god and a votive object (PRN 34148) (figure 154 inset). It is difficult to date but likely to belong to the 4th century (Lynch 2012). This seems to be isolated from other late Roman evidence and was not close to a spring or other obvious potential focus for veneration. It may indicate the presence of buried remains in the vicinity.

Many of the roundhouse settlements on Holy Island have no evidence for use into the Roman period. In many cases this is due to little or no excavation, though the main Parc Cybi settlement shows that not all substantial settlements continued into the Roman period. The Porth Dafarch settlement (PRN 2754) is assumed to date from the 3rd to 4th centuries due to the pottery found, as well as a 3rd century penannular brooch and a cornelian intaglio (Stanley 1876, 132, 134; RCAHMW 1937, 28). Stanley's reports on his excavations are somewhat confusing, but Waddington has added to the confusion by mistaking a description of finds from Tŷ Mawr for ones from Plas Feilw (Waddington 2013, 171-2; Stanley 1869, 304-306). It seems that the Plas Feilw did not produce evidence of occupation in the Roman period. However at Pen y Bonc (PRN 3808) a rectangular building was associated with Roman pottery, including sherds of mortaria and samian Ware (Stanley 1870, 151), and a Roman copper alloy fibula was found at Twr (PRN 3806) on the east side of Holyhead Mountain (Stanley 1870, 162, plate VIII).

The extent that Roman traditions penetrated the island might be indicated by what appear to have been Roman cremation burials near roundhouses at Pen y Bonc (PRN 3808). Small circular cists were found which appeared to have contained cremated bone in pots, though the pottery was only found broken and scattered around. The pottery was certainly Roman, including some samian Ware (Stanley 1869, 306-7). It would appear that this was a Roman cremation cemetery, indicating Roman style burial in probably the 2nd or 3rd century. However, the description is too confused to be completely certain about this interpretation and such cremation burials close to native roundhouse settlements are not known elsewhere.

Roman period burial was demonstrated in Parc Cybi, as the small long cist cemetery was dated to the late Roman period, rather than the expected Early Medieval period. This suggests the penetration of late Roman customs to the local inhabitants of Holy Island, presumably disseminated from the garrison at the fort. Whether the burials indicate the influence of Christianity in the area is much harder to demonstrate, as inhumation burials were generally more widely used in the Roman period. However, the consistent east-west alignment and neat layout of the cemetery is indistinguishable from later cemeteries that must have belonged to Christian communities.

Most of this evidence suggests Roman influence coming from the 4th century fort, however there are also hints of Roman influence pre-dating the fort. A collection of about a dozen copper alloy coins was found in hut no 6 (or hut C) at Tŷ Mawr and they dated from the latter half of the 2nd century (Stanley 1869, 305). A pair of Romano-British ox-head bucket-mounts were found in 1977 on Dinas (PRN 1748), that probably date to the 2nd to 3rd centuries AD (Boon 1978). The 2nd century samian ware found at Parc Cybi also fits in this context. These finds were few and scattered, except those from Area K9 that were residual in the later activity, so they do not clearly point to a focus for activity in this period, but it may have been located outside the development area or in an area not yet excavated.

Though far from conclusive, the presence of coins and samian ware could indicate an earlier fort in the area. While a possible route for a Roman road to the fort, using part of Lôn Trefignath, has been suggested (Hopewell 2007, part 2, map 107), the existence of such a road is considered to be unlikely. The road system was built as part of the Roman conquest and the late date of the fort means that it was more likely to be supplied by sea. The section of road (PRN 16047) found at Cleifiog Uchaf near Valley, dated as Roman by a sherd of 1st or 2nd century mortarium recovered next to it (Davidson 1999), suggests a routeway of the period, though it seems not to have been a military road. Hopewell (2007, 27) considers that it is unlikely that a fort built in the post-invasion period to control Anglesey would have been built on "an inaccessible offshore islet", so an early fort at Holyhead is ruled out.

The earlier Roman material must have come from a more distant Roman presence, though a possible 1st century fortlet has recently been found on the north coast of Anglesey (Hopewell 2015), so it is possible that the Roman military may not have been very far away. There may even have been a military road system across the island that has not yet been detected.

The fourth century fort at Holyhead may have been linked to a road system across Anglesey if one already existed. Hopewell (2007, part 2, map 107) marks a suggested route for a possible Roman road following part of Lôn Trefignath (figure 3), but Kingsland Road presents a more direct line from the ford at Four Mile Bridge. This was the 18th century post road to Holyhead, and the route would seem a reasonable one for a Roman road if one existed, or for a less formal route between the fort and mainland Anglesey. Lôn Trefignath may still have had Roman origins, especially at the northern end, if it was a continuation of the Roman period track found running through the settlement in Area K9. In the 18th century Lôn Trefignath turned north-east at its southern end to join another

track leading to the shore (figure 102). It is speculated that this other track running slight north of Lôn Trefignath may have followed in part the route taken by the Roman track to the shore. Access to what is now the Inland Sea, then a sheltered landing place for small boats, is likely to have been of importance in the 4th century, when the fort was in operation, but could also have been used at an earlier date.

Medieval

Medieval Parc Cybi

With the dating of the long cist cemetery at Parc Cybi to the late Roman period it initially appeared that the medieval period was unrepresented on the site. In fact evidence for mid and later medieval activity is scarce, despite the area being so intensively used in earlier and later periods. The area must certainly have been farmed in the medieval period, and the area is large enough that one or more farmsteads might be expected. It is possible that medieval sites underlay the post-medieval ones. The earlier site of Trefignath Farm is a likely candidate for the site of a medieval farmhouse, and this was not investigated in the present project. The site of Bonc Dêg was also not directly investigated and was largely damaged by large pits to bury rubble. However, the small number of medieval sherds from Area B2 might indicate a medieval settlement somewhere in this area.

The clearest evidence comes from the site of Tyddyn Pioden where dates (cal AD 1020–1160 (SUERC-87442) and cal AD 1020–1190 (SUERC-87443) from smithing activity prove that this site was being used in the medieval period. The remains of possible hayrick gullies, earlier than the 18th century farmyard and probably contemporary with the smithing, suggest that this was a farmyard in the medieval period. This evidence gives support to the hints from the other farms of medieval origins and it is perhaps not unreasonable to imagine the density of medieval settlement to be similar to the 18th century with farmhouses in much the same places as they were then. This would give a much more dispersed settlement pattern than is usually assumed in association with medieval open fields. Occasional quillets, the enclosed remains of lands from open fields, do survive in the map evidence for the Parc Cybi area, although less clearly than in other parts of Anglesey. Some of the ditches revealed during the excavation also suggest narrow strip fields, but generally there was little excavated evidence for an extensive open field system. It may be that even in the 11th and 12th centuries the open fields on Holy Island were small and there were more enclosures and a more dispersed settlement pattern than in the classic champion country of the English Midlands.

Radiocarbon dates revealed busy activity in the Early Medieval period. Again, there was no settlement evidence within the excavated areas so it is possible that settlement was within an area that was not excavated by the current project, possibly in Area K5, or that settlement from this period is impossible to see archaeologically. If houses were not built with postholes or foundations dug into the ground their traces might not survive and if possessions were few and all of organic materials, these too would not survive. Activity in the period 5th and 6th centuries AD is however demonstrated by corn dryers. The dates are all so similar that this could represent a short-lived period of activity of probably no more than 75 years in duration. The corn dryers are also distributed only over one part of the site (figure 155). Two dryers reused the area of the 4th century activity and the rest were within a radius of 100m from this site, with one being on the edge of the long cist cemetery. This suggests that these features were located within a landscaped already defined by late Roman activity and their positions were probably influenced by this. Some of the Iron Age and Roman period boundaries may have still been in use and it is possible that a few of the other early boundaries may have originated in this period.

While the corn dryers may have been within contemporary fields this general area was used for settlement in the Bronze Age and Iron Age as well as the late Roman period and it seems likely that Early Medieval settlement was also concentrated here, with only the corn dryers surviving to demonstrate this. The scarcity of Early Medieval settlement in Wales makes these discoveries highly significant.

Corn dryers

Corn dryers are required both to preserve grain and to allow easier milling. They can also be used to encourage malting of barley. Whilst the drying of corn will have been undertaken throughout prehistory, specific structures for this purpose date from Roman times onwards (O'Sullivan and Downey 2005, Scott 1951). Corn dryers are often keyhole or dumb-bell shaped (O'Sullivan and Downey 2005), with corn dryer PRN 31601 being a typical example. Some have the flue or drying chamber lined with stone, such as Glan Morfa Farm, Chwiliog (PRN 34081) (Kenney *et al* 2014, 18), Cefn Du, Gaerwen (Cutler *et al* 2012, 25) and Graeanog, Clynog (Kelly 1998, 132) but the corn dryers in Area K9 were more complex with two layers of lining. There are often many charred grains recovered from corn dryers and it is assumed that this is the result of grain being accidentally burnt while

drying. However, some grain and particularly chaff might have been introduced to the fire with fuel, especially if grain was being threshed nearby and there were quantities of waste available as fuel.

Table 17. Dates from corn dryers in north-west Wales

Site	Material	Date BP	Calibrated date 95% probability	Lab No.	Reference
Glan Morfa Farm, Chwiliog	Oat grain	851 ±25	cal AD 1150–1260	SUERC-44174	Kenney <i>et al</i> 2014, 18, 23
	Wheat grain	891 ±26	cal AD 1040–1220	SUERC-44175	
	Oat grain	839 ±25	cal AD 1150–1260	SUERC-44177	
Cefn Du, Gaerwen	Cereal grain	903±78	cal AD 1000-1280	Wk-9275	Cuttler 2012, 9, 25
Graeanog, Clynnog	Wood charcoal	840±60	cal AD 1040-1280	CAR-932	Kelly 1998, 138
	Wood charcoal	1020±60	cal AD 890-1160	CAR-933	
	Wood charcoal	1040±60	cal AD 780-1160	CAR-934	
	Wood charcoal	1680±70	cal AD 130-540 ⁵	CAR-1156	
Parc Bryn Cegin, Llandygai	Oat grain	867±39	cal AD 1040-1260	Wk-20035	Kenney 2009, 132
	Oat grain	917±36	cal AD 1020-1220	Wk-20036	
Llanbeblig, Caernarfon	Barley grain	756±19	cal AD 1220–1280	SUERC-41961	Kenney and Parry 2013b, 275
	Barley grain	858±29	cal AD 1050–1260	SUERC-42596	
Coed Dolwydd, Conwy	Oat grain	841 ± 31	cal AD 1050-1270	SUERC-55148	Davidson 2015
	Hazelnut shell	826 ± 31	cal AD 1160-1270	SUERC-55149	
	Oat grain	849 ± 31	cal AD 1050-1270	SUERC-55150	
Dolbenmaen, Gwynedd (corn dryer 1678)	Wheat grain	764 ± 34	cal AD 1210-1290	SUERC-68346	Kenney and McNicol 2017, 56
	Oat grain	909 ± 34	cal AD 1020-1220	SUERC-68347	
Dolbenmaen, Gwynedd (corn dryer 1547)	Oat grain	1544 ± 33	cal AD 420-600	SUERC-70637	Kenney and McNicol 2017, 56
	Barley grain	1588 ± 33	cal AD 390-560	SUERC-70638	
Dolbenmaen, Gwynedd (possible corn dryer 1602/1683)	Oat grain	592 ± 64	cal AD 1290-1420	SUERC-68327	Kenney and McNicol 2017, 56
	Oat grain	461 ± 34	cal AD 1410-1470	SUERC-68328	
Kingsland, Holyhead	Barley	1544±28	cal AD 420-600	SUERC-58609	Wessex Archaeology 2015, appendix 5, p20
	Wheat	1554±29	cal AD 420-570	SUERC-59068	

Most excavated corn dryers in north-west Wales that have been radiocarbon dated were used during the medieval period in the 11th to 13th centuries AD (see table 17). The use of corn dryers is probably related to an increase in the cultivation of oats, which are generally picked under-ripe and then require drying (McKenna 2013), but radiocarbon dates are increasingly suggesting that oats appear in the Early Medieval period so corn dryers of that period might be expected. One of the corn dryers found at Dolbenmaen, Gwynedd dated to the 5th or 6th century AD (see table 17 (Kenney and McNicol 2017, 56)), this is a similar date to the Parc Cybi corn dryers. While not directly associated with a corn dryer a patch of burnt material containing charred germinated barley indicating malting was found at Cefn Du, Gaerwen and dated to cal AD 390-720 (Wk-9273)⁶⁵ (Cuttler 2012, 9, 20).

From elsewhere in Wales Early Medieval corn dryers are increasingly being discovered. Four corn dryers were found at South Hook, Herbranstion, Pembrokeshire (Crane and Murphy 2010) within an Early Medieval settlement, which also included metal-working. The settlement was used from the late 8th century to the middle 12th century. A charred barley grain from one of the corn dryers produced a date of cal AD 680-880⁶⁶ (Beta-222370) (Crane and Murphy 2010, 136, 145). The South Wales Gas Pipeline Project revealed several Early Medieval corn dryers⁶⁷. Three pits, probably corn dryers, were found near Brynwgwan, Manordeilo and Salem, one of which produced four statistically consistent dates which, when modelled gave a start date of 230-570 cal AD (95% probability)

⁶⁵ Calibrated at 95% probability. Wk-9273: 1476±89 BP

⁶⁶ Beta-222370: 1250±40 BP

⁶⁷ Thanks to Rhiannon Comeau for bring these sites to my attention.

and an end date of 430-800 cal AD (95% probability) (Griffiths 2013). A probably corn dryer from Maes-y-Lan, Llanddowror produced dates of cal AD 470–640 and 530–650 (SUERC-54693 and SUERC-54694, 95% probability) (Hart 2013b, 6). Two classic corn dryers were excavated near Felindre Mawr, Swansea and one produced dates of cal AD 390–560 and cal AD 400–580 ((SUERC-56389 and SUERC-56389; 95% confidence) (Leonard 2013, 6). Several corn dryers were found at Sarn y Bryn Caled, Welshpool in 1998-9, two of which were dated to the 6th or 7th centuries cal AD (cal AD 578-654 (UB-4432) and cal AD 425-565 (UB-4433))⁶⁸ (Blockley and Tavener 1999). Two corn dryers from Buttington Cross, Welshpool were dated to cal AD 440–650 (SUERC-24178) and cal AD 380–540 (SUERC-24180) (Mann and Hurst 2009).

The Parc Cybi dates show that all the corn dryers were being used at roughly, or possibly exactly, the same time in the 5th or 6th centuries AD. As these features were widely spread over the site and probably located in field corners it suggests arable fields across the site at this period and settlement presumably nearby. The number of these features implies that there was not a large reduction in agriculture in the area at the end of the Roman period.

The impact of this close series of dates is contributed to by a corn dryer found in evaluation trenching to the west of the Holyhead Leisure Centre, Kingsland (Kenney 2012b, 8-9). Samples from this feature produced large quantities of charred grain, including barley and free threshing wheat and a small amount of oats (Wessex Archaeology 2015, appendix 5, p17), confirming the interpretation of the feature as a corn dryer. Despite producing a few sherds of Bronze Age pottery radiocarbon dates obtained on barley and wheat grains showed that this feature was Early Medieval (cal AD 420-600 (SUERC-58609) and cal AD 420-570 (SUERC-59068)) (Wessex Archaeology 2015, appendix 5, p20). This date is remarkably similar to those from the Parc Cybi corn dryers and confirms the extensive use of corn dryers in the area at that period.

Generally, the corn dryers do not appear to be close to other features, whether contemporary or otherwise, and they might be assumed to have been located within the fields. The exceptions are the two corn dryers (PRN 76100 and 76101) in Area K9, which have made use of the pre-existing Roman period settlement. Corn dryer PRN 76100 was immediately adjacent to the remains of the stone structure 80257 and corn dryer PRN 76101 was not far from this on the other side. Possibly the attraction was the easily available stone for building the linings of the dryers. Elsewhere corn dryers are occasionally inserted in much earlier sites such as the medieval corn dryer built into the remains of a late Roman period settlement at Graeanog (Kelly 1998, 132) and a corn dryer reusing the entrance to an Iron Age roundhouse at Abergwyngregyn (Johnston *et al* 2009). At Cefn Du the dryer seems to have cut the fragmentary remains of an earlier, possibly Romano-British house (Cuttler 2012, 25-26). The Kingsland corn dryer was located inside what is interpreted as an Iron Age roundhouse, though it is doubtful that any trace of this was visible when the corn dryer was in use (Kenney 2012b, 8-9).

Although apparently of minor interest the Parc Cybi and Kingsland corn dryers are of considerable significance as they indicate activity and the proximity of settlement in the Early Medieval period when settlements are rarely found or recognised. They suggest that this part of Holy Island was settled and farmed in the 5th or 6th centuries AD, and that the associated settlements might be found nearby with careful investigation and dating.

As well as providing evidence of otherwise invisible activity, dates on corn dryers can be used to determine when specific crop species became common. The Parc Cybi dates show that oats was a crop in north-west Wales by the 6th century, making its adoption earlier than often assumed.

Medieval Holy Island

Figure 4

Across Anglesey the presence of Early Medieval communities is demonstrated by their cemeteries rather than by their settlements (figure 153). The late Roman date from smithing in the long cist cemetery at Parc Cybi suggests that this had gone out of use long before the settlement using the corn dryers. However, there was another cemetery about 600m away at Tŷ Mawr (PRN 11048). This is assumed to be Early Medieval in date, though the Parc Cybi dates might also raise questions about the dates of this site. The earlier burials in the cemetery at Towyn y Capel, Trearddur Bay was dated to approximately AD 650-870 (Davidson 2009, 181), making this later than the Parc Cybi activity. Other long cist burials at Porth Dafarch and possibly under and outside the church in Holyhead are undated.

In 1949 two skulls and other human bones were found at the base of the sand on the edge of Penrhos Beach (PRN 2505) (Williams 1950b). They were found near flint scatters but there is little reason to associate them with

⁶⁸ Recalibrated at 95% probability

prehistoric activity and the position at the base of the sand suggests they might have been buried in graves dug into the sand. No cists or other evidence was reported but it seems possible that they were from a medieval cemetery. Their precise location is unknown but the description suggests that they were somewhere near where a “Danish fort” (PRN 2509) is shown on Stanley’s map of antiquities (Stanley 1868, map opposite p385). The map (figure 145) shows a large mound with possibly some walls around the top. The situation on the bay and the form of a presumably sand covered mound possibly associated with human remains raises the possibility that this site was a cemetery mound like Towyn y Capel. Possibly the mound was removed mainly by erosion of the sea, though if it was a cemetery this would have exposed numerous burials and some comment from Stanley or other antiquarians of the area would be expected. The discovery of the human remains does suggest that there may have been another cemetery not far from Parc Cybi.

Early medieval settlement might be suggested by radiocarbon dates from the Tŷ Mawr roundhouse settlement. Dates of cal AD 420-770 (HAR-5730), cal AD 420-770 (HAR-5731), cal AD 410-970 (HAR-6803) and cal AD 130-540 (HAR-6684)⁶⁹ came from buildings T3 and T4 (Smith 1985, 38, 40; Smith 1987a, 21, 25). A similar date also came from building T1, which may have been associated with reuse of that building. These buildings were smaller, less circular and well-built than the buildings in the earlier phase of the settlement. The radiocarbon dates may be supported by the presence of oats from building T4, as this grain does not appear before the Early Medieval period, however here the grains are small and it could be wild oats present as a weed species (Williams 1986, 65). There is also a possible hint of Early Medieval settlement to the west of Parc Cybi, represented by the corn dryer found west of the Holyhead Leisure Centre, Kingsland (Kenney 2012b, 8-9, Wessex Archaeology 2015, appendix 5, p20) (PRN 34737). This could indicate the presence of a neighbouring contemporary settlement.

Further afield there are hints in the roundhouse settlements of Anglesey that they may have continued in use into the Early Medieval period. One of the best-known examples of this is the site of Pant y Saer, which was used in the later Roman period, as pottery and the presence of rectangular buildings shows, but in one of the rectangular buildings was found a silver penannular brooch dating to the Early Medieval period (Phillips 1934, 18-21). A small patch with burnt remains next to the roundhouse at Cefn Du produced an Early Medieval date on germinating barley. It is not suggested that the roundhouse was occupied then but the area seems to have been in use, possibly for malting (Cuttler 2012, 20). The roundhouses at Cefn Cwmwd may have been used into the Early Medieval period as is hinted by a Byzantine intaglio from inside building S4 and a penannular brooch from near building S5. Pottery from building S5 suggested most activity in the 3rd-4th centuries suggesting that late Roman roundhouses could continue in use (Roberts *et al* 2012, 58). There seems to have been crop processing at Melin y Plas in the Early Medieval period (Smith 2012a, 95).

Post-medieval

Most of the land covered by Parc Cybi was part of the Penrhos Estate, with a small amount owned by other large Anglesey estates. The Penrhos Estate, based around Penrhos House to the south-east of Holyhead, had been owned since the medieval period by the Owen family and was a distinctively Welsh estate embedded in the local community. In 1742, Hugh Owen died leaving the estate in the hands of his wife, Margaret Owen, with his daughter, also Margaret, as the heiress. In 1763, the younger Margaret married Sir John Thomas Stanley of Alderley, bringing the estate into the Stanley family. Sir John spent little time at Penrhos and left his mother-in-law, Margaret Owen, to run the estate (Huws 2018, 22-23, 29).

Margaret and Sir John’s son, John Thomas the Younger, inherited the estate in 1805, but was too involved in the Alderley estate and politics to make significant improvements at Penrhos. The merger with the Alderley estate and the absence of the landowner from Penrhos separated the estate from its Welsh roots, and its function became largely to supply a regular income for the English estate (Huws 2018, 28-9). Sir John Stanley the Younger had twin sons; the eldest, Edward, inherited Alderley and the younger, William Owen, inherited Penrhos. W. O. Stanley was the only Stanley to make Penrhos his permanent home and he lived there between the 1830s and his death in 1882 (Huws 2018, 26). This period saw the main improvements and changes to the estate, to which many of the features recorded during the Parc Cybi excavations can be ascribed, particularly regularised field boundaries, the construction of large drainage culverts and the building of new farmhouses. W. O. Stanley was much more engaged with the history and culture of his Welsh lands than the rest of his family, especially the archaeology and he has left an important record of archaeological discoveries on Holy Island (Lynch 2011, 35-36), which has been drawn on for this report.

⁶⁹ Recalibrated. 1430 ± 80 BP (HAR-5730), 1410 ± 80 BP (HAR-5731), 1370 ± 130 BP (HAR-6803) and 1700 ± 80 BP (HAR-6684)

Outside the demesne lands, the estate was farmed by tenants and the estate gained its income from rents from those tenants. Rent was collected on the Penrhos Estate at Michaelmas (29th September) and Martinmas (12th November) following the end of harvest and of livestock sales respectively, when farmers had money (Huws 2018, 18). In the 18th century, the main crops of Anglesey were oats and barley with little wheat, and potatoes were extensively grown. Turnips were introduced at the end of the century as winter food for sheep (Jones 2002, 37). The state of arable agriculture was often criticised by visitors and considered to require much improvement but arable was not the focus of Anglesey agriculture, as it was famous for breeding and rearing beef cattle, sold by the drovers in the English cities. Pigs were also an important export (Jones 2002, 38, Ramage 1987, 298-304). However, the criticisms were probably justified of the Penrhos Estate before W. O. Stanley started improvements.

Parts of Anglesey were farmed in the medieval period under the open field system, but much of this land had been enclosed by the 18th century. The remaining common lands that were enclosed by Enclosure Acts in the early 19th century were generally the poorest quality land. Enclosure was part of a movement of land improvement embarked on by the larger local landowners (Jones 2002), but had little impact around Holyhead. Only 20 acres were enclosed by Act of 1859 in Holyhead, with one area, Cytir Tymawr (Jones 2003, 79), being just north of Parc Cybi, but all the land within the area of Parc Cybi had been enclosed long before this date.

The surviving estate maps have been used above to trace the development of specific farms within the area of Parc Cybi and to interpret archaeological remains. The map evidence combined with excavated remains indicates there was a medieval open field system over at least part of the area covered by Parc Cybi. In the post-medieval period, some of the strips of the open field were enclosed and used into the late 19th century. However, the late 18th century estate maps shows much of the southern part of the development area as pasture and waste with few boundaries. This area may have been pasture in the medieval period and only enclosed and ploughed from the 18th century onwards.

The smithing activity found at Tyddyn Pioden and dated to the 11th or 12th centuries AD suggests that this farmstead was occupied during the medieval period and it is likely that some of the other farms were established at least in the late medieval period. Trefignath and Pen y Lôn would seem to be probable sites for at least 16th century cottages. The final position of Trefignath farm is recorded in the map evidence as being used from the early 19th century and a house known as Ty'n y Coed and the modern Tyddyn Pioden came into existence in the 19th century. From the 18th century, and probably earlier, Parc Cybi was covered by small fields with farmhouses and cottages scattered amongst them. The biggest change in this area was the construction of the railway just east of Parc Cybi in 1846-8.

Although some agricultural practices from the last few centuries are recorded in literature and by historians, such as Iorwerth Peate (Peate 1944), the everyday practices that lead to archaeological remains are often not recorded. The current excavation has revealed minor features, such as small ditched enclosures that were probably of considerable significance in the successful storage and processing of agricultural products. Small farmsteads previously known only from maps were investigated, with Tyddyn Pioden providing most information about the character of the farmhouse and layout of the yard, but the discovery of what may be a horse gin associated with Bonc Dêg adds more information to how these farms used available power. Water supply was also critical and the project provided the opportunity to record the stepped wells that used the water in the substantial drainage culverts to supply the farmhouses.

The ring gullies and some of the other small enclosures found across Parc Cybi have been interpreted as drainage for hayricks or other storage areas. This class of feature is often either disregarded on archaeological excavations, or mis-interpreted as an earlier feature, such as a Bronze Age ring ditch or roundhouse. The general lack of dating evidence from these makes adds to problems of dating and interpretation, but location, associations and fill types suggest many are recent agricultural features.

Haystacks may seem a very lowly feature when considering the archaeology of a period, but they were economically of great importance and their location informs the understanding of land use and farming systems.

Hay was a critical crop for livestock farmers in the medieval period through to recent times, especially in Wales where the wet weather meant that cattle had to be kept in byres over winter to avoid damaging the pasture by trampling. As well as hay, the animals needed straw for bedding, and both hay and straw were generally stored in the fields or the farmyard in open-air stacks. Cereals, peas and beans might also be stored in stacks, often around a central post, but in the later medieval and post-medieval periods these were more likely to be stored in barns

(Gardiner 2013, 24).

Ditched features similar to those found at Parc Cybi have been identified elsewhere, particularly in the English Fens and in upland Scotland, through aerial photography, as well as ground survey and excavation (Gardiner 2013, 25). Gardiner (2013) identifies these as ditched stacks and notes that they are often found in wet areas and the ditches kept the base of the stack dry. Excavated examples of ring ditches around stacks are up to 10m in diameter; generally the ditches are narrow, but occasionally wide, and they can be penannular rather than completely circular. They are often poorly dated but there are examples from the late Roman period onwards. Some of the excavated examples presented by Gardiner (see figure 156) are remarkably like the various small enclosures found at Parc Cybi. This similarity supports the interpretation of the circular and penannular gullies as stack gullies, and it is likely that the small enclosures of other shapes were similar small agricultural features.

Conclusion

This project has essentially allowed landscape archaeology to be undertaken by excavation. The development of a substantial area of Holy Island has been followed over more than 6000 years through a variety of different uses; religious, funerary, domestic, ceremonial and agricultural. Links through cultural connections demonstrated in features such as pottery styles like Grooved Ware and Beakers can be made between Parc Cybi and places as far away as Orkney and the European continent. While the pottery styles have distant connections the pottery was made locally, and many of the features found on Parc Cybi similarly have a distinctive local character; fitting traditions from the wider world to local conditions and ideas.

The people that lived on Parc Cybi were generally neither rich nor powerful, but in many periods they did not lack in local influence and had considerable skills. The construction of a large timber hall and the associated tomb in the Early Neolithic period required practical skills and experience. Similarly the construction of some of the largest stone roundhouses in the region in the Iron Age demanded individuals completely familiar with the technology of their time and able to push it to its limits. The pathway to roundhouse A and its impressive porch implies the need to impress more than local visitors, perhaps suggesting a ceremonial or cultural role wider than the immediate group of settlements. In the Late Bronze Age someone could afford a small gold ornament and possibly a bead of amber from the distant Baltic. In the Iron Age locally made shale bangles reflected knowledge of, and perhaps desire for, similar items in jet, while in the Early Neolithic the people were leading fashion by making their own design of jet-like bead.

For the most part it is the everyday and the ordinary that gives the clearest impression of life in the past, such as the mastery of the new technologies of ceramics and dairying seen in the Early Neolithic, with their well-made burnished pots used to hold milk products from their herds. The use of a slightly battered but beautifully decorated pot to contain sustenance to help a loved-one into the Bronze Age afterlife and the work put into spinning yarn for clothing in the Iron Age also give an insight into life and death at a person level. The communities of the Early Medieval period are invisible except for need to dry their grain, arising largely from adopting the use of oats, which is harvested while still slightly under-ripe.

Throughout the millennia Holyhead Mountain looked down on the activity of the people, sometimes being noticed by them and sometimes not. The Neolithic tomb was almost as constant a feature of the landscape, though it suffered and declined in more recent centuries. It may have been a landmark for routeways, a reminder of the past for the Bronze Age people and a convenient look-out point for the Iron Age cattle herders, still busy spinning at their other duties.

Even into the mid 20th century the local people remembered their past. They knew that people had lived there before them in the Pant yr Hen Bobl, even if they knew only because they repurposed the stones of those ancient houses. As this land moves on into a new phase of its history this project has provided an opportunity to explore its past and present that to the current inhabitants of the area.

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Online

Wikimedia Commons

Map by John Ogilby of London to Holyhead Road: The Continuation of the Road from London to Holyhead Commencing at the City of Chester (1675)

[https://commons.wikimedia.org/wiki/File:Ogilby - The Continuation of the Road from LONDON to Holyhead Comencing at the City of CHESTER \(1675\).jpg?uselang=en-gb](https://commons.wikimedia.org/wiki/File:Ogilby_-_The_Continuation_of_the_Road_from_LONDON_to_Holyhead_Comencing_at_the_City_of_CHESTER_(1675).jpg?uselang=en-gb)

National Library of Wales, Digital Gallery

Saxton's Map: <https://www.library.wales/discover/digital-gallery/maps/county-maps/saxtons-county-maps-of-wales/mone-insulae-modo-anglesey-et-caernaruan/>

Speed's map: <https://www.library.wales/discover/digital-gallery/maps/county-maps/speeds-county-maps-of-wales/anglesey/>

Navionics Chart Viewer (navigational charts)

<https://webapp.navionics.com/#boating>

Appendix I: List of sites registered in the HER for Holy Island (not post-medieval and modern)

For location of sites see figures 2 to 4

PRN	Site Name	Period	Type	NGR
807	Dinas Promontory Fort, Porth Ruffydd	Iron Age?	Promontory fort	SH22277941
1547	Anglo-Saxon Coin, Findspot, Caer Gybi	Early Medieval	Findspot	SH24708260
1654	Mesolithic Flints, Findspot, S of Pentre Gwyddel	Mesolithic	Findspot	SH28107530
1655	Stone Mortar, Findspot, S of Pentre Gwyddel	Iron Age/Roman period?	Findspot	SH28107530
1747	Hut Group, Mynydd Gof Du	Iron Age/Roman period	Hut circle settlement	SH225799 A
1748	Roman Finds, Dinas	Roman	Findspot	SH22277941
1749	Flints, Findspot, Porth Ruffydd	Mesolithic	Findspot	SH21608000
1750	Burial Chamber, Possible Site of, Nr Ffynnon Gorllan	Neolithic	Chambered tomb	SH23408250
1752	Capel Llochwydd, Remains of, Treaddur	Medieval	Chapel	SH21408276
1753	Hut Circles, Capel Llochwydd	Iron Age/Roman period	Hut circle settlement	SH21408276
1754	Coin, Findspot, Capel Llochwydd	Medieval	Findspot	SH21408276
1755	Hut Circles, Holyhead Mountain	Iron Age/Roman period	Hut circle settlement	SH21208200
1756	Hut Circles and Field System, Holyhead Mountain	Iron Age/Roman period	Hut circle settlement	SH21408215
1757	Roman Coins, Findspot, Holyhead Mountain Hut Circles	Roman	Findspot	SH21118199
1758	Bronze Hoard, Findspot, Holyhead Mountain	Bronze Age	Findspot	SH21668227
1759	Gold Coins (Constantine), Findspot, SW Holyhead	Roman	Findspot	SH22208290
1760	Caer y Twr Hillfort, Holyhead Mountain	Iron Age	Hillfort	SH21808300
1761	Capel Gorlas, Site of, Holyhead	Medieval	Chapel	SH23368242
1762	Roman Fort, Remains of, Holyhead	Roman	Fort	SH24718262
1763	St. Cybi's Church, Holyhead	Medieval	Church	SH2472082620
1764	Eglwys y Bedd, Holyhead	Medieval	Chapel	SH2470082590
1765	Capel Ulo, Possible Site of, Holyhead	Unknown	Chapel	SH24918132
1766	Ffynnon Ulo, Possible Site of, Holyhead	Unknown	Well	SH24798131
1767	Ffynnon Gybi, Site of, Holyhead	Unknown	Holy well	SH24758280
1768	Hut Group, Tre Hwfa	Iron Age/Roman period	Hut circle settlement	SH23608250

PRN	Site Name	Period	Type	NGR
1769	Roman Coin, Findspot, Tre Hwfa	Roman	Findspot	SH23608250
1770	Ffynnon y Wrach, Holy Well, S of Holyhead Mountain	Unknown	Holy well	SH2232082260
1772	Barrow, Site of, Porth Dafarch	Bronze Age	Barrow	SH23398005
1773	Barrow, Site of, Porth Dafarch	Bronze Age	Barrow	SH23398005
1774	Barrow, Site of, Porth Dafarch	Bronze Age	Barrow	SH23398005
1776	Cemetery, Porth Dafarch	Early Medieval	Cist grave cemetery	SH23408010
1828	Monastery, Site of, Caer Gybi	Early Medieval	Monastery	SH24708260
1833	Macehead, Findspot, Nr. Porth Dafarch	Bronze Age	Findspot	SH24008060
2000	Ynys Leurad Settlement, Valley	Iron Age/Roman period	Hut circle settlement	SH27687896
2001	Cist Grave Cemetery, Towyn y Capel	Early Medieval	Cist grave cemetery	SH25607900
2003	Hut Circle Settlement, Trearddur	Iron Age/Roman period	Hut circle settlement	SH26257989
2004	Ffynnon Gwenfaen Holy Well, Rhoscolyn	Early Medieval	Holy well	SH2594975436
2008	Burial Chamber, Site of, Rhoscolyn	Neolithic	Chambered tomb	SH26347660
2009	Standing Stone, Possible, Stanley Mill	Bronze Age	Standing stone	SH26647888
2010	Possible Settlement, Porth Diana	Prehistoric	Settlement	SH25307850
2011	Penannular Brooch, Findspot, Trearddur Bay.	Early Medieval	Findspot	SH25607900
2012	Roman Coin Hoard, Findspot, Trearddur Bay	Roman	Findspot	SH25607880
2014	Standing Stone, Site of, Cerrig Moelion	Bronze Age	Standing stone	SH26407720
2015	Site, Trearddur Bay (Possible Duplicate of PRN 2003)	Prehistoric	Enclosed settlement	SH26607890
2016	Capel Lugors, Site of	Medieval	Chapel	SH27807757
2017	Capel Gwynnau, Site of	Medieval	Chapel	SH26797810
2214	Hut Circle Settlement, Porth Namarch	Iron Age/Roman period	Hut circle settlement	SH226832 A
2500	Trefnath Burial Chamber, Treaddur	Neolithic	Chambered tomb	SH25868055
2501	Tŷ Mawr Standing Stone, Holyhead	Bronze Age	Standing stone	SH2539480951
2502	Coin Hoard, Findspot, Tref Arthur, Holyhead	Roman	Findspot	SH25908000
2503	Roman Coin Hoard, Findspot, Penrhos Isaf, Holyhead	Roman	Findspot	SH26008100
2504	Burial Chamber, Trearddur	Neolithic	Chambered tomb	SH2596580048
2505	Flints and Human Bones, Findspot, Penrhos Beach	Prehistoric	Findspot	SH26308160
2506	Stone Tools, Findspot, Penllech Nest	Neolithic	Findspot	SH25108160

PRN	Site Name	Period	Type	NGR
2507	Stone Axes, Findspot, Near Kingsland, Holyhead	Neolithic	Findspot	SH25048165
2508	Coins, Findspot, Penrhos, Holyhead	Roman	Findspot	SH27058139
2509	'Danish Fort', Site of, Penrhos	Iron Age?	Promontory fort	SH26308150
2510	Burial Chamber, Site of, Morawellan	Neolithic	Chambered tomb	SH25308212
2567	Flint, Findspot, Cae Llyn, Rhoscolyn	Prehistoric	Findspot	SH27597506
2748	Standing Stones, Penrhos Feilw	Bronze Age	Standing stone pair	SH22708094
2752	Plas Meilw Hut Circles, Trearddur	Iron Age/Roman period	Hut circle settlement	SH23008090
2754	Hut Circle Settlement, Porth Dafarch	Iron Age/Roman period	Hut circle settlement	SH23408010
3795	Hut Group, Site of, W Side of Breakwater Quarry	Iron Age/Roman period	Hut circle settlement	SH23408331
3796	Cist Burial, Site of, Nr. Porth y Gwyddel	Bronze Age	Cist	SH21508110
3797	Standing Stone Group, Site of, Meini Moelion, Holyhead	Bronze Age	Standing stone group	SH21008200
3798	Tumulus, Gorsedd Gwlwm, W of Holyhead	Bronze Age	Barrow	SH22758166
3799	Roman Coin, Findspot, Holyhead	Roman	Findspot	SH24008200
3800	Burial Chamber, Possible Site of, Plas Feilw	Neolithic	Chambered tomb	SH22008000
3801	Bronze Tool (Palstave), Findspot, Holyhead Mtn.	Bronze Age	Findspot	SH21008200
3802	Cist Burial, Site of, Nr. Pen y Bonc	Bronze Age	Cist	SH21938153
3803	Bronze Tool (Palstave), Findspot, Holyhead Mountain	Bronze Age	Findspot	SH21008200
3804	Cairn, Garn	Bronze Age	Cairn	SH21408276
3806	Hut Group and Finds, Site of, Twr	Iron Age/Roman period	Hut circle settlement	SH22008200
3807	Standing Stone, Site of, Kingsland, Holyhead	Bronze Age	Standing stone	SH24008100
3808	Hut Group and Finds, Site of, Pen y Bonc	Iron Age/Roman period	Hut circle settlement	SH21768146
3809	Roman Watchtower and Finds, Caer y Twr	Roman	Watch tower	SH21858294
5541	Quernstones, Findspot, Beddmanarch	Iron Age/Roman period	Findspot	SH27518089
5667	Flint Axe Hoard, Findspot, Cwm, Holyhead	Neolithic	Findspot	SH24008200
5668	Stone Axe, Findspot, Ty Du, Holyhead	Neolithic	Findspot	SH24008200
6894	Early Christian Burials Beneath Eglwys y Bedd, Holyhead	Early Medieval	Cist grave cemetery	SH24708260
6915	Caergybi Parish Church, Holyhead	Medieval; Post-Medieval	Church	SH2472082620
7068	Rhoscolyn Parish Church, Rhoscolyn	Medieval; Post-Medieval	Church	SH2680875718
7159	Tidal Mill, Ty'n y Felin	Medieval	Tide mill	SH28817676

PRN	Site Name	Period	Type	NGR
7162	Enclosure (Possible), Holyhead Mountain	Prehistoric	Enclosure	SH21488283
7169	Standing Stone, Penrhos	Bronze Age	Standing stone	SH26828183
7170	Fish Trap, Cerrig yr Adar, Penrhos	Unknown	Fish weir	SH27438172
7171	Fish Trap, Penrhos	Unknown	Fish weir	SH27788115
7172	Fish Trap, Penrhos	Unknown	Fish weir	SH27708095
7212	Tidal Mill, Possible Site of, Felin-heli	Medieval	Tide mill	SH26577977
7236	Ridge and Furrow, Rhoscolyn	Medieval	Ridge and furrow	SH26727492
7237	Ridge and Furrow, Nr. Porth Yr Hwngan	Medieval	Ridge and furrow	SH26517494
7895	Flints, Findspot, Brynglas, Penrhos Bay	Prehistoric	Findspot	SH26578177
11048	Tŷ Mawr Cemetery, Holyhead	Early Medieval	Cist grave cemetery	SH25168130
15691	Caim, Holyhead Mountain	Prehistoric	Caim	SH21858294
15692	Caim, Holyhead Mountain	Prehistoric	Caim	SH21888291
15695	Pit, Penrhos	Prehistoric	Pit	SH25768112
16047	Roman Road, Cleflog Uchaf	Roman	Road	SH28687940
16572	Peat Deposit, Trearddur Bay	Prehistoric	Peat deposit	SH25407890
16576	Carreg Llwyd Cove Submerged Peats, Rhoscolyn	Prehistoric	Peat deposit	SH25707680
16579	Antler Dredged from Holyhead Harbour, Holyhead	Prehistoric	Findspot	SH25008260
16583	Borth Wen Submerged Peats, Rhoscolyn	Prehistoric	Peat deposit	SH27507500
16604	Penrhos Bay Submerged Peats, Holyhead	Prehistoric	Peat deposit	SH26308180
16641	Ford, Pont Rhydbont, Trearddur	Medieval	Ford	SH27988350
17843	Roman Road, Proposed, Tal y Foel to Holyhead	Roman	Road	
19615	Lead Cross, Findspot, Trearddur Bay	Medieval	Findspot	SH25507900
19669	Stone Axe, Findspot, Trearddur Bay	Neolithic	Findspot	SH25407900
24041	Worked Stone, Possible, Findspot, Trearddur	Mesolithic	Findspot	SH22407960
24116	Flint Blade, Findspot, Holyhead Mountain	Neolithic	Findspot	SH21468397
31804	Burnt Mound, Possible, Cae-glas	Prehistoric	Burnt mound	SH25758093
31805	Burnt Mound, Cae-glas	Prehistoric	Burnt mound	SH26018076
31806	Burnt Mound, Cae-glas	Prehistoric	Burnt mound	SH26278068
31807	Burnt Mound, Graig Lwyd	Prehistoric	Burnt mound	SH28427880

PRN	Site Name	Period	Type	NGR
31808	Burnt Mound, Graig Lwyd	Prehistoric	Burnt mound	SH28487872
31809	Burnt Mound, Graig Lwyd	Prehistoric	Burnt mound	SH28557866
31810	Burnt Mound, Crig-las	Prehistoric	Burnt mound	SH28847879
32072	Ffynnon Llochwydd, Holyhead	Unknown	Holy well	SH21408276
32073	Well near Capel Seilo, Llaingoch	Unknown	Holy well	SH22858246
32074	Ffynnon Gorlas, Holyhead	Unknown	Holy well	SH23368240
34148	Statuette, Findspot, Rhoscolyn	Roman	Findspot	SH276758
34737	Settlement, Possible Site of, Kingsland	Iron Age/Roman period/early medieval	Hut circle settlement	SH2441580608
34738	Field System, Kingsland	Prehistoric	Field system	SH2439580620
34741	Pit, Kingsland	Prehistoric	Pit	SH2477280645
34742	Burnt Mound, Cae Glas	Prehistoric	Burnt mound	SH2639680160
34743	Burnt Mound, Cae Glas	Prehistoric	Burnt mound	SH2642880311
34786	Submerged Forest, Treaddur Bay	Prehistoric	Submerged forest	SH2543678386
36139	Melin Ddwr, Former Site of, Holyhead	Medieval	Watermill	SH2357483080
36276	Flint Flake, Findspot, Tŷ Mawr	Prehistoric	Findspot	SH2557380989
36277	Flint Scraper, Findspot, Tŷ Mawr	Prehistoric	Findspot	SH2536280939
36508	Tre-gof, Remains of, Treaddur	Medieval	Farmstead	SH26608020
38271	Flint scatter, Porth Ruffydd (Site 1/G)	Mesolithic	Flint scatter	SH21737993
38272	Flint scatter, Penrhosfeilw Common (Site 2/F)	Mesolithic	Flint scatter	SH21647983
38273	Flint scatter, Penrhosfeilw Common (Site 3.1/E)	Mesolithic	Flint scatter	SH21587976
38274	Flint scatter, Penrhosfeilw Common (Site 3.2)	Mesolithic	Flint scatter	SH21627977
38275	Flint scatter, Penrhosfeilw Common (Site 3.3)	Mesolithic	Flint scatter	SH21587938
38276	Flint scatter, Penrhosfeilw Common (Site 4/D)	Neolithic?	Flint scatter	SH21537981
38277	Flint scatter, Penrhosfeilw Common (Site 5/C)	Mesolithic?	Flint scatter	SH21517989
38278	Flint scatter, Penrhosfeilw Common (Site 6)	Neolithic?	Flint scatter	SH21487965
38279	Flint scatter, Penrhosfeilw Common (Site 6.3)	Neolithic?	Flint scatter	SH21467962
38280	Flint scatter, Penrhosfeilw Common (Site 7.1)	Mesolithic?	Flint scatter	SH21377955
38281	Flint scatter, Penrhosfeilw Common (Site 7.2/J)	Mesolithic?	Flint scatter	SH21357962

PRN	Site Name	Period	Type	NGR
38282	Flint scatter, Penrhosfeilw Common (Site 8)	Mesolithic?	Flint scatter	SH21297954
38283	Flint scatter, Penrhosfeilw Common (Site 9)	Prehistoric	Flint scatter	SH21247983
38284	Flint scatter, Penrhosfeilw Common (Site A)	Prehistoric	Flint scatter	SH21588012
38285	Flint scatter, Penrhosfeilw Common (Site 10/B)	Prehistoric	Flint scatter	SH21497999
38286	Test pit investigating flint scatter, Penrhosfeilw Common	Prehistoric	Flint scatter	SH21547981
38287	Shell Midden, Penrhosfeilw Common	Prehistoric?	Shell midden	SH21358050
38288	Field boundary, Penrhosfeilw Common	Medieval?	Field boundary	SH21287955
61261	Standing Stone	Bronze Age	Standing stone	SH23338205
61481	Road, Possible Site of, Holyhead	Medieval	Road	SH2466882520
62356	Roman Votive Statue, Findspot, Rhoscolyn	Roman	Findspot	sh276758
65534	Burnt Mound, Holyhead	Prehistoric	Burnt mound	SH2185382151
67851	Flint Scatter, Penrhosfeilw Common	Prehistoric	Flint scatter	SH21458007
67896	Tŷ Mawr Ring Barrow, Holyhead	Bronze Age	Barrow	SH25198137
68602	Hut Circle Settlement, Possible, Rhoscolyn	Iron Age/Roman period	Hut circle settlement	SH2823675791
69277	Find Spot, Holyhead	Neolithic	Findspot	SH2518681381
69278	Post Holes, Possible, Holyhead	Neolithic	Post hole	SH2518481382
69279	Hearth, Possible, Holyhead	Neolithic	Hearth	SH2518581378
69281	Inhumations, Possible, Holyhead	Early Medieval	Inhumation cemetery	SH2518481380
69282	Skeletal Remains, Possible, Holyhead	Early Medieval	Skeletal remains	SH2518581380
74531	Burnt Mound, Possible, Capel Gorlas	Bronze Age	Burnt mound	SH23368242

Appendix II: List of sites within Parc Cybi

PRN NGR (qualifier)	Site name Community Council	Importance	Period	Description
2500	Trefnath Burial Chamber			
SH25868055	Trearddur	AA	Neolithic	Scheduled Monument in Cadw guardianship.
2501	Tŷ Mawr standing stone			
SH25398095	Holyhead Urban	AA	Bronze Age	Scheduled Monument in Cadw guardianship.
13925	Field Boundaries			
SH25508070 (C)	Holyhead Urban/Treaddur	D	Post Medieval	Excavation revealed some of the 18th and 19th century field boundary ditches as shown on the historic maps.
13927	Well			
SH25268091	Holyhead Urban	D	Post Medieval	Well with steps leading down to water level. Fed by a culvert and constructed in the late 19th century. This well as in the middle of the fields but might have been used as water supply by Tyddyn Pioden on Kingsland Road.
13928	Bonc Deg (site of)			
SH25558087	Trearddur	C	Post Medieval	The farm of Bonc Deg first appears on the 1817 map. On the 1853 tithe map it is called Penbone-deg, and Bonc-deg or Bonc Deg on later maps. The layout of fields around Bonc Deg was the same in 1817 as it was in 1889, and some of the fields remained largely unchanged until at least 1969. The small fields apparently used for a market garden in the 20th century according to a local man whose grandfather owned the farm. Excavation revealed the remains of a possible pony gin related to this farm and large pits containing demolition rubble.
13929	Trefnath (site of)			
SH25928068	Trearddur	B	Post Medieval, Medieval?	The name of the farm has been very variable, including Trefignernth (1624), Trefignedd (1769) and Trefignant (1817). The forms show no logical development, and 1624 is the earliest known reference (Smith 1987). The 1769 map shows two small buildings to the north of the modern farm, which were in a field called Trefignedd, part of the Pen-y-Lone land. By 1817 there was a building, named as Trefignath, in the same location as the recent farm, but the two buildings to the north were still in use. The situation was the same in 1845 and 1853, but by 1887 the whole farm had moved to the southern location. Slight scarps in the field probably define the location of the farmyard. Excavation to the west of the site of the early farm revealed gullies and pits probably related to it. There is a strong possibility of medieval remains surviving in this location. The site was rapidly surveyed in 2012 as part of the Penrhos Leisure Village Archaeological Evaluation (GAT project code G2163).

PRN	Site name	Importance	Period	Description
NGR (qualifier)	Community Council			
13930	Possible Prehistoric Site, Tŷ Mawr			
SH25688040	Trearddur	D	Unknown	Pit discovered in 2001 evaluation trenching and recorded as site 43. Full of material identified as slag and suggested as being prehistoric. Evaluation trenching in 2004 in this area found no further features and Peter Crew thought the "slag" was not the result of metal-working but was fuel ash slag that could be produced by burning of any sort. Date unknown and could have been the result of burning at any time, so perhaps more likely to be post medieval than prehistoric.
14587	Stone Settings, Trefignath			
SH2573480622	Trearddur	D	Post Medieval?	The evaluation trenching in 2001 revealed a figure of 8 shaped pit or two conjoined pits full of stones, including two large ones. There were no finds (Davidson 2002, 44). This feature was recorded as site 41 (PRN 14587) and its exact location was identified in the current works and the feature was plotted as 19074 (figure 24). This does not seem to be related to the other features in this area and may be a post medieval pit used to bury stones out of the reach of the plough.
14588	Pen y Lôn (site of)			
SH25588080 (C)	Trearddur	C	Post Medieval	Site of the cottage and yard of Pen y Lôn. Excavation revealed various pits, one containing a polished stone axe. The boundaries defining the yard, paddock and adjacent field could be identified on the ground.
14599	Parc Cybi stone roundhouse settlement			
SH25568078 (C)	Trearddur	AA	Iron Age	A complex stone-walled roundhouse settlement dating to the Middle Iron Age but built on an Early Iron Age stone platform that may have supported an earlier timber building. The Middle Iron Age settlement seems to have begun with a single house, which was demolished and two large roundhouse built, with a further one to the south. These houses were remodelled and another roundhouse built as well as other structures including granaries during the life of the settlement. A small wattle-walled roundhouse existed to the north of the other buildings but it was unclear if this was contemporary or dated to the Roman period. This site was fully excavated and is now marked by the position of a round-about in Parc Cybi.
14602	Romano-British Settlement, Parc Cybi			
SH25618091	Holyhead Urban	U	Roman?	This area (Area K5) has been investigated by geophysical surveys in 2001 (Davidson 2002) and in May 2004 (Donaldson 2004) and subjected to 3 phases of evaluation trenching; in 2001 (Davidson 2002), in 2004 (Smith 2004) and later in 2004 (Davidson <i>et al</i> 2004; Davidson and Roberts 2004). The trial trenches revealed a stone-capped drain, and various pits and gullies. The densest area of archaeological activity included stone spreads, some burnt and patches of yellow clay, possibly floor surfaces. A raised area of stones was interpreted as a possible clay and stone wall. Trench 13 produced 2 nd century AD mortarium sherds and a fragment of a crucible. A sherd from trench 54 however proved to be probably medieval not Roman. In 2007 an evaluation was carried out on a narrow corridor down the western edge of Area K5, known as K2. A concentration of archaeology was found and a 3m by 5m extension was dug revealing what appeared to be the remains of a wall and clay floor. Immediately north-west of Area K3 a 19 th century stone-lined culvert (19059) cut through the site, which was probably the same as the stone-built culvert found in the evaluation trenches. North of the culvert was a gravel and clay surface associated with postholes. The work done so far indicates a probable settlement in the southern part of Area K5. The Roman finds from the evaluation were few but hint that the settlement may have continued into the Roman period.

PRN	Site name	Importance	Period	Description
NGR (qualifier)	Community Council			
18402	Enclosure and Structure, (site of Tyddyn y Biogen)			
SH25258112	Holyhead Urban	D	Post Medieval	The tithe map shows the small house and yard of Tyddyn y Biogen. During excavation a corner of the walled enclosure was identified but no remains of the buildings were found.
18403	Tyddyn Pioden (site of)			
SH25348082	Holyhead Urban	B	Post Medieval; Medieval	The modern house of this name is at SH 2510 8092, but the earlier maps (1769 and 1817) show that it was originally further east. The farm had moved to London Road by 1845. The earliest spelling on the maps is Tyddyn y Pregodyn, it is called Tyddyn y Biodan on the tithe map and Tyddyn Piodan on the 1817 estate map. The excavation revealed part of a cob-walled house, the farmyard boundaries and associated features. There were also earlier features, probably hayrick gullies, and a pit containing smithing debris. The smithing was dated to the 11th or 12th century AD.
18404	Stone, Natural Feature, Tŷ Mawr			
SH25418085	Holyhead Urban		Natural	During the initial assessment of the development site a recumbent stone was identified, but an evaluation trench demonstrated that this was a glacial erratic embedded in the natural subsoil and was not of any archaeological importance.
18406	Occupation Site, Parc Cybi			
SH25318077	Holyhead Urban	A	Neolithic	An area of activity in a natural hollow, consisting of pits, post and stakeholes and hearths associated with a patch of buried soil. Numerous pot sherds and flint flakes were recovered from the buried soil and the features. Most of the pottery was Early Neolithic but some sherds were Beaker. Beaker sherds were also found in this location during evaluation trenching in 2004. Radiocarbon dates demonstrated Mesolithic activity as well as Early Neolithic and Beaker period. This site represents short term occupation taking place repeatedly over a considerable period of time.
18407	Cobbled Area, Tŷ Mawr			
SH25558067	Trearddur	D	Natural	What was initially thought to be a cobbled surface was found in evaluation trench A34, but this seems more likely to have been just stones embedded in the natural boulder clay (Davidson <i>et al</i> 2004).
29737	Earthworks			
SH25338065	Trearddur	D	Natural	A group of low, grassy hummocks, some resembled banks and others roughly circular hollows. The scarps are less than 0.4m high, and are generally aligned along the same axis as the ridge. Evaluation trenching found no buried remains associated with these earthworks. The open area excavation showed that this location was at the end of a low rock outcrop and it is likely that undulations in this caused the earthworks. However a field boundary ditch also crossed this area and may have added to the undulations.

PRN NGR (qualifier)	Site name Community Council	Importance	Period	Description
31570 SH25748053	Neolithic rectangular timber building, Parc Cybi Trearddur	AA	Neolithic	Remains of a rectangular timber building dating to the Early Neolithic period. The building was orientated WSW-ESE and measured approximately 15.2m long and 6m wide. Two parallel rows of five posts, arranged symmetrically about the long axis of the building, formed a central aisle. A slightly more irregularly pattern of posts and plank slots formed the side and end walls of the building. The structure appears to have been subdivided internally into three separate compartments, a tripartite division of space that is encountered on some of the larger rectangular Neolithic buildings in Britain and Ireland. The long axis of the structure was aligned on the Trefignath Neolithic chambered tomb which stands approximately 97m to the NNE and would have been visible from the timber building, looking past the adjacent rock outcrop. Nine radiocarbon dates were obtained and, when modelled, gave a start date for the activity of probably 3710-3665 cal BC (68% probability) and an end date of probably in 3645-3625 cal BC (68% probability). A posthole to the north of the Early Neolithic building contained a large unfinished camel-coal bead. Dates from the feature prove the bead to be Early Neolithic. This is the earliest jet-like object from Wales.
31571 SH2523481062 (C)	Pits and Postholes, Parc Cybi Holyhead Urban	A	Neolithic	A small group of pits and postholes, some containing sherds of Early Neolithic pottery, probably representing settlement activity. Further pits and postholes extended further west, some of which might be related but others contained Bronze Age pottery and many of these features are probably later than the Early Neolithic activity.
31572 SH25698062	Pit Group, Parc Cybi Trearddur	B	Neolithic	A group of 9 pits containing Fengate pottery and other artefacts including a stone macehead. There were other more widely dispersed, probably contemporary, pits in this area as well.
31573 SH25678078	Pit Group, Parc Cybi Trearddur	B	Neolithic	A group of 7 pits containing sherds of Middle Neolithic Mortlake Ware and other finds. They were distributed in two arcs and are suggested as representing two, sequential huts. Three radiocarbon dates were obtained from this pit group and the model created from these estimates that this activity began probably in 3390-3165 cal BC (68% probability) and ended probably in either 3285-3255 cal BC (4% probability) or 3240-3035 cal BC (64% probability).
31574 SH25268087	Pit Group, Parc Cybi Holyhead Urban	B	Neolithic	Group of features consisting of two pits, a shallow scoop and a hearth. The pits contained Late Neolithic Grooved Ware pottery. It is suggested that this was the site of a small stake-walled structure but that the stakeholes did not survive due to ploughing. Three dates were obtained from the two pits containing Grooved Ware. The model produced from these dates estimates that this activity began in probably either 2865-2820 cal BC (6% probability) or 2785-2585 cal BC (62% probability) and ended probably in 2625-2440 cal BC (68% probability).
31575 SH25448037	Pit Group, Parc Cybi Trearddur	U	Prehistoric?	A group of four pits. As these contained no finds or charcoal they cannot be dated. They were located on high ground at the foot of a rocky outcrop.

PRN	Site name	Importance	Period	Description
NGR (qualifier)	Community Council			
31576	Structure, Parc Cybi			
SH25758070	Trearddur	B	Prehistoric	Group of postholes probably forming a small structure but the plan of this was not clear. Two chert flakes were recovered but no other finds. A sherd of probable Food Vessel was found nearby.
31577	Pits and Postholes, Parc Cybi			
SH2578780713	Trearddur	B	Prehistoric	Two adjacent four-post structures with other surrounding features. Part of a wider spread of structures and occupation activity. Evidence of some Bronze Age activity in the area hints that these structures might also be Bronze Age but there is no clear dating from these particular features. This activity is probably part of the same general spread of activity as PRN 31579 and 31580.
31578	Structure, Parc Cybi			
SH2577980726	Trearddur	B	Prehistoric	Short lines of postholes forming some kind of small structure with pits around it. Some flint and fragments of prehistoric pot from the pits. Two quite divergent Mesolithic radiocarbon dates were obtained from one of the postholes, so it is possible that this represents Mesolithic activity rather than the Neolithic and Bronze Age activity seen elsewhere in this area.
31579	Structure, Parc Cybi			
SH25818072 (C)	Trearddur	B	Prehistoric	Group of features including a 6 post and a four-post structure with some flints but few other diagnostic finds. Evidence of some Bronze Age activity in the area hints that these structures might also be Bronze Age but there is no clear dating from these particular features. This activity is probably part of the same general spread of activity as PRN 31577 and 31580.
31580	Pits, Parc Cybi			
SH2579480740 (C)	Trearddur	B	Bronze Age	A dispersed and vague collection of pits and less convincing features. One pit had Middle Bronze Age pot sherds and Bronze Age dates. Another feature contained a sherd of Middle Neolithic Fengate Ware and produced Late Mesolithic and very Early Neolithic radiocarbon dates, indicating considerable mixing. This activity is probably part of the same general spread of activity as PRN 31577 and 31579.
31581	Structure, Parc Cybi			
SH25738074	Trearddur	B	Bronze Age	A group of 25 features including many small stakeholes but some well defined postholes and some larger pits. The only finds were 2 flint flakes. The features appear to be the remains of a small structure, although its plan cannot be clearly defined. Bronze Age radiocarbon dates were obtained.
31582	Burnt Mound, Parc Cybi			
SH25348075	Holyhead Urban	B	Bronze Age	A fairly large burnt mound with three pits; two water troughs and a possible dry cooking pit. Also a very large pit that probably functioned as a well. Four radiocarbon dates showed it to be Beaker period in date.
31583	Burnt Mound, Parc Cybi			
SH25308075	Holyhead Urban	B	Neolithic	A very small burnt mound with a small trough or pit. A large bifacial leaf-shaped flint arrowhead was found under the mound and radiocarbon dates showed the mound to be Late Neolithic in date.

PRN NGR (qualifier)	Site name	Importance	Period	Description
31584	Community Council			
	Burnt Mound, Possible, Parc Cybi			
SH25288080	Holyhead Urban	B	Prehistoric	An oval pit (cut number 31436), measuring 1.2m by 0.9m and 0.25m deep, with a charcoal-rich fill and burnt stones. Either an isolated earth oven or possibly a pit associated with a burnt mound that lies outside of the excavation area. Undated.
31585	Earth Ovens, Possible, Parc Cybi			
SH25298085 (C)	Holyhead Urban	B	Bronze Age	Two oval pits (cut numbers 31306 and 31513), just under 1m in diameter and 0.25m deep with charcoal-rich fills. Pit 31306 contained a sherd of Middle Bronze Age pottery and some fragments of a similar fabric from pit 31513. Probably earth ovens.
31586	Burnt Mound, Possible, Parc Cybi			
SH25168110	Holyhead Urban	B	Prehistoric	A sub-circular medium sized pit (cut number 07023), which contained concentrated charcoal and fire cracked stones. This resembled small burnt mound pits but there was no trace of a mound or other features in the area.
31587	Pits, Parc Cybi			
SH25458094	Holyhead Urban	U	Prehistoric	Two sub-rectangular pits (cut numbers 03078 and 03082), the latter cutting through the fill of the former. Pit 03078 contained a layer of charcoal and was sealed by a dump of redeposited clay. Pit 03082 also contained a charcoal-rich layer but also contained burnt stones, which resembled the deposits found in burnt mound troughs. However no trace of a burnt mound was seen in the area. Apart from a possible hammerstone (sf5704) no finds were recovered from the two pits. About 6m to the north-west of these pits was the terminal of a small stone-filled ditch (03086) with a substantial posthole at its end. The ditch ran into the baulk. No finds were recovered from this feature.
31588	Roundhouse, Parc Cybi			
SH25668080	Trearddur	B	Bronze Age?	Heavily truncated postholes defining a timber roundhouse, with an inner post-ring measuring 5.4m in diameter and an outer wall of c.11m diameter. No finds or dating evidence directly associated with the roundhouse but pits containing Early and Middle Bronze Age pottery were located nearby.
31589	Cist Cemetery, Parc Cybi			
SH25218108	Holyhead Urban	AA	Bronze Age	A group of eight short cist graves contained within a circular area c. 10m in diameter and possibly originally under a barrow. There were 3 small cists and 5 larger ones. Two of the large cists contained pots, one Food Vessel and one Beaker but there were few other finds and no surviving human remains.
31590	Ring Ditch, Parc Cybi			
SH25238105	Holyhead Urban	A	Bronze Age	A ring-ditch with a maximum external diameter of approximately 12m enclosing a level, sub-circular area about 9m in diameter. The ditch was up to 0.4m deep. There were no burials inside the ring ditch and no finds were recovered. The infilled ditch was recut probably in the 19th century to form a drain around the remains of the barrow to reuse it as a hayrick or similar.

PRN NGR (qualifier)	Site name Community Council	Importance	Period	Description
31591 SH25218106	Enclosure, Parc Cybi Holyhead Urban	AA	Bronze Age	Deep ditches formed an enclosure with an irregular 'figure of 8' shape with two separate areas. The whole enclosure measured about 11.5m by 7.2m, with ditches up to 1m in depth and generally around 1.4-1.6 m wide. The monument began as a circular enclosure, which was partially infilled and then extended to a rough D-shape. There were some small pits in and around it but these were not necessarily associated. The ditch was partially infilled with erosion from a probable external bank and partially by material including large slabs and pottery being pushed in from inside. The pottery was Bronze Age and Bronze Age radiocarbon dates were obtained.
31592 SH25518084	Pit Group, Parc Cybi Holyhead Urban	B	Iron Age	A group of small sub-circular pits (group 25046) on top of a low knoll. There were 21 pits, on average 0.5m in diameter, and between 0.06m and 0.3m in depth. Most had charcoal-rich fills. Many of the pits had traces of <i>in situ</i> burning. Pit 5026 had a lining of orange burnt clay, pit 4011 produced 2.14kg of burnt stone and pit 11019 also contained some burnt stone, as well as some smithing slag. One Middle Bronze Age sherd was found but also fragments of Iron Age Cheshire Salt Containers. Radiocarbon dates suggested a Late Iron Age date.
31593 SH25508085	Structure, Parc Cybi Holyhead Urban	B	Iron Age	A rather irregular roughly oval hollow (22171) measuring about 7m by 6m with postholes around the edge and a hearth in the middle. These were the remains of a small structure. Finds were not very diagnostic but a spindle whorl found nearby hints at an Iron Age date and a single radiocarbon date also supported a date in the Late Iron Age.
31594 SH25638073 (C)	Field Boundaries, Parc Cybi Trearddur	A	Iron Age/Romano-British	A ditch (90325) running from near the roundhouse settlement joins an enclosure with a curved north end. No dating evidence was available but it is possible that these ditches formed boundaries to fields associated with the settlement or related to the Roman field system to the north. One pit in this area contained half a shale bracelet of possible Roman date and another contained a sherd of a mid-2nd century mortarium.
31595 SH25688087	Roundhouses, Parc Cybi Trearddur	A	Iron Age	Two roundhouses, probably originally with clay-walls. One had a question-mark-shaped internal drain and the other had numerous complex covered drains, and had probably burnt down. The number of finds was small, but radiocarbon dating demonstrated a Middle Iron Age date.
31596 SH25688076 (C)	Settlement, Parc Cybi Trearddur	A	Roman	A square stone building and a clay-walled roundhouse with numerous post-built structures between them. A trackway runs through the middle of the complex. The clay-walled building contained industrial activity involving several hearths. Pottery indicates a 3rd to 4th Century AD date with some 2nd century samian sherds possibly residual from earlier activity nearby.

PRN NGR (qualifier)	Site name Community Council	Importance	Period	Description
31597	Trackway, Parc Cybi			
SH25668076	Trearddur	A	Roman	Linear feature from SH25668076 to SH25928070. A trackway starting as a terrace through a Roman period building complex and curving east with stone banks on either side preserved in places. The north side had one or more ditches and there were traces of metal surface. Ditches that ran from the trackway probably represent a contemporary field system. Occasional finds of Roman pottery along the trackway indicate a Roman date but the track is best dated by its relationship to the Roman period building complex.
31598	Pits, Parc Cybi			
SH25728065	Trearddur	B	Iron Age	A group of pits (group 19073) focused around a rather irregular elongated hollow (18085 and 22015), with a burnt clay and stone slab lining. There were several pits and postholes, some of the pits had stacks of stone slabs in their bases. No clear structure was defined. No finds were recovered with the exception of a samian ware sherd located nearby. The sherd was probably not associated with the activity as a radiocarbon date suggested a Middle Iron Age date. In association with PRN 31599 this appears to have been a small area of settlement activity.
31599	Hearth, Parc Cybi			
SH25728064	Trearddur	B	Iron Age	A disturbed clay hearth (22001/22003) with an adjacent earth oven (21039). The hearth contained a large broken stone mortar (sf1036). A grinding stone (sf 1039) came from adjacent to the hearth and a decorated spindlewhorl (sf1042) came from the earth oven. A radiocarbon date showed these features to be Iron Age and most probably part of the same occupation activity as PRN 31598.
31600	Cist Cemetery, Parc Cybi			
SH25648084	Trearddur	A	Roman	A cemetery containing twenty three graves on top of a small rounded hill. The graves were mainly stone long cists but some seemed to have been partial or complete wooden cist graves. Both adult and child graves were present and it seems to have been a small family cemetery. Smithing activity was found in a feature cut into one of the graves. This activity was dated to the late Roman period and this suggests that the cemetery was also late Roman. However it was not possible to date the cemetery directly. Roman inhumation cemeteries are rare in North Wales.
31601	Corn Drier, Parc Cybi			
SH25648083	Trearddur	B	Early Medieval	Corn dryer (cut number 80056) formed of two linked pits, one the fire chamber and one the drying pit. It seems to have had a stone lining but the stones were disturbed. Radiocarbon dates showed it to date to the 5 th or 6 th centuries AD.
31602	Corn Drier, Parc Cybi			
SH25668085	Trearddur	B	Early Medieval	Possible corn dryer with oval shaped pit (80137), and 'C' shaped stone structure. Radiocarbon dates showed it to date to the 5 th or 6 th centuries AD.
31603	Corn Drier, Parc Cybi			
SH25678082	Trearddur	B	Early Medieval	A figure-of-eight shaped corn dryer [21051]. Radiocarbon dates showed it to date to the 5 th or 6 th centuries AD.
31604	Corn Drier, Parc Cybi			
SH25668067	Trearddur	B	Early Medieval	Dumb-bell shaped corn dryer, feature 21229, Radiocarbon dates showed it to date to the 5 th or 6 th centuries AD.

PRN	Site name	Importance	Period	Description
NGR (qualifier)	Community Council			
31605	Ty'n y Coed, Site of, Tread-dur			
SH 2510 8078 (A)	Holyhead Urban	C	Post Medieval	Early 19th century location of a house called Ty'n y Coed as shown on 1845 tithe map.
31608	Field System, Parc Cybi			
SH25658087 (C)	Treaddur	C	Post Medieval	Several ditches and a fragment of wall forming part of a field system around a low rounded hillock. Not shown on the historical maps, so presumably earlier than late 18th century. One sherd of late 17th or 18th century pottery found but very little other dating evidence. Possible traces of enclosed medieval strips in the field boundaries.
31609	Field System, Parc Cybi			
SH25418073 (C)	Treaddur	C	Post Medieval	Ditches around and over a low hillock defining fields not shown on the historical maps, so presumably earlier than late 18th century. Only later post medieval finds recovered but these do not necessarily date the ditches.
31610	Field System, Parc Cybi			
SH25818044 (C)	Treaddur	C	Post Medieval	Paired ditches forming the boundaries to fields not shown on the historical maps, so presumably earlier than late 18th century. Only later post medieval finds recovered but these do not necessarily date the ditches.
31611	Field System, Parc Cybi			
SH25248084 (C)	Holyhead Urban	C	Post Medieval	Excavated ditches defined a narrow field, shown on the 1769 map and is marked as owned by the Owens. The ditches continued further north-east than shown on the map, with a slight hint in the map boundaries and in a ditch (05037) in area B1 on the same alignment that it might have continued much further. These ditches defined a long narrow field that may have been a group of strips.
31612	Culvert, Parc Cybi			
SH25578082 (L)	Treaddur	D	Post Medieval	Linear feature running from SH 25568 80815 to SH 25499 80737. Stone-lined culvert (90522) running towards the marsh from an area of activity in the corner of the Bonc Deg property. Pre-dates probable 18th century activity, but not otherwise dated.
31613	Culvert, Parc Cybi			
SH25578074 (L)	Treaddur	D	Post Medieval	Linear feature running from SH 25574 80735 to SH 25643 80919. Well-built stone culvert in the base of a deep cut, which still had running water when it was investigated in 2007. Constructed with large capstones and drystone sides. Probably built in the mid 19th century.
31614	Well, Parc Cybi			
SH25598084	Treaddur	D	Post Medieval	Well with steps leading down to water level. Fed by culvert and probably constructed in the late 19th century.
31615	Well near Merddyn Poeth			
SH25138105	Holyhead Urban	D	Post Medieval	Well with steps leading down to water level. Fed by land drains and constructed in the late 19th century.

PRN	Site name	Importance	Period	Description
NGR (qualifier)	Community Council			
31618	Enclosures, Parc Cybi			
SH25298072	Holyhead Urban	D	Post Medieval	In area E on the southern slope of the gravel ridge, leading down to marshy land were two small enclosures. Feature 31579 was roughly sub-rectangular and aligned nearly east-west along the contours. Feature 31529 was nearly oval in plan and aligned north-east to south-west across the contours. Neither was terraced into the slope. Feature 31579 enclosed an area measuring 5.5m by 3.4m and was open at each narrow end, whereas feature 31529 measured 3.9m by 2.2m internally and had no gap in the surrounding gully. The fill of 31579 contained very occasional charcoal fragments, but no finds, however a hollow cut into the terminus of its southern gully contained 19th and 20th century pottery. Enclosure (31529) produced no finds, and neither feature had evidence of postholes or any structural use of the gullies. These are interpreted as hayrick gullies or peat drying areas.
31619	Enclosure, Parc Cybi			
SH252628085	Trearddur	D	Post Medieval	In area K7 a C-shaped gully (80162), forming an arc approximately 11.8m diameter, about 10m internally, cut through one of the pre-map field system ditches (80169). The gully was 0.40m deep and no artefacts were recovered from its fill. This may be some sort of livestock enclosure.
31620	Enclosure, Parc Cybi			
SH25288094	Holyhead Urban	D	Post Medieval	In area D3 was a narrow, shallow gully (60186,) defining a sub-rectangular enclosure measuring 6.5m by 5.3m externally. It contained coal fragments within its fill. Possibly a hayrick gully.
31621	Enclosure, Parc Cybi			
SH25308089	Holyhead Urban	D	Post Medieval	In area D3 was a C-shaped enclosure (60079) measuring 5.2m by 3.5m, possibly originally oval. It contained coal fragments within its fill. Possibly a hayrick gully.
31622	Enclosure, Parc Cybi			
SH25188091	Holyhead Urban	D	Post Medieval	In the western corner of area D3 was a ditched enclosure measuring approximately 20m by 10m. The ditch (60204/60221) was up to 0.25m deep and defined three sides of a rectangle. The fourth side may have been formed by a narrow, shallow gully (60219), but this was on a slightly different orientation to the rest of the enclosure and may have been an unrelated drain. No finds were recovered from the fill of the ditches apart from a fragment of modern drain pipe from the north east segment. Probably post medieval and possibly a livestock enclosure.
31623	Hay Stack. Possible, Parc Cybi ditch, Parc Cybi			
SH25238105	Holyhead Urban	D	Post Medieval	Narrow steep-sided stone-filled gully recut around the ring ditch in area M, forming a drain around a raised platform created from the remains of the barrow. Possibly used for the storage of hay.
31624	Clay Pits, Parc Cybi			
SH25308092	Holyhead Urban	D	Post Medieval	In area D3 numerous pits were dug in the corner of a field used from the 18th century onwards (PRN 31623). These were dug into boulder clay and may have been quarry pits. They could have been related to the construction or repair of the Tyddyn Proden house, which appears to have been largely a cob building.

PRN	Site name	Importance	Period	Description
NGR (qualifier)	Community Council			
31625	Gravel Pit, Possible, Parc Cybi			
SH25258103	Holyhead Urban	D	Post Medieval	Within area M was a large, roughly oval hollow (19053, PRN 31625) measuring about 42m by 26m and up to 1.5m deep in the middle. This had gradually sloping sides and a relatively flat base. The fill was similar to the ploughsoil but contained numerous glass bottles and other rubbish. The area appears enclosed, possibly by a wall on the 1817 estate map, but the enclosure had gone by the First Edition OS map was surveyed. The lack of waterborne silts suggests that it was not a pond so the most likely explanation is that it was a gravel quarry. The enclosure of this feature in the early 19th century probably indicates that it was in use then and the wall was to prevent animals falling into the quarry.
31626	Pits, Parc Cybi			
SH25318086	Holyhead Urban	D	Post Medieval	In area E a group of three outlying pits (31356, 31359, 31364) were located approximately 32m to the north-west of the Tyddyn Pioden farmstead. These features (PRN 31626) are as yet undated but they have been provisionally assigned to the post medieval period. The features were rectangular in plan with rounded ends ranging between 2.6m and 3.0m in length and 1.1m and 1.2m in width. They survived to depths ranging from 0.4m to 0.6m. They were most similar to the two pits in the northern part of area B2, also attributed to a post medieval date and possibly associated with culvert 90522.
31627	Flints, Findspot, Parc Cybi			
SH25748048	Trearddur	B	Mesolithic	A small collection of flint and chert pieces were recovered from a shallow linear hollow during the Parc Cybi excavations. The hollow (50412) measured 2.5m by 0.5m and was only 0.14m deep and it contained a scalar/bipolar core and a narrow blade microlith along with a large chert flake with microchipping on two sharp edges. Feature 50412 was aligned north-north-west to south-south-east between two post-medieval ditches (50429 and 50410). Another linear hollow (50414) ran nearly parallel to it about 1.5m to the west, and may have continued for at least 9m, although it was discontinuous. These parallel linear hollows could have been furrows from an earlier field system preserved under the later boundaries and protected from later ploughing.
33939	Wall or Trackway, Ty Mawr			
SH2568580933	Trearddur	D	Post Medieval	A wall or possible trackway found in the Scottish Power Cable Trench. It was a deposit of flat slabs on a northwest to southeast alignment, measuring 1.6m in width and 0.15m in depth. Parallel to and under neath the wall were two palaeo-channels.
33940	Wall, Ty Mawr			
SH2569380938	Trearddur	D	Post Medieval	Traces of a wall, 0.8m in width and 0.4m in depth, on a northeast to southwest alignment found in the Scottish Power Cable Trench. The wall consisted of five large sub-angular cobbles, bonded by a mid-brown silt-clay, and immediately to the southeast was a cobbled surface.
36274	Structure, Site of, Parc Cybi			
SH2507380952	Holyhead Urban	D	Post Medieval	A large mortared stone, possible a threshold, indicating the presence of a structure was found in 2006 during a watching brief on test pits. This corner of the development site was not stripped during the open area excavation of Parc Cybi, so no further information was found on this possible building.

PRN	Site name	Importance	Period	Description
NGR (qualifier)	Community Council			
36275	Farmyard, Possible, Parc Cybi			
SH2532180831	Holyhead Urban	C	Post Medieval	A cobbled surface and other remains suggesting a small building were revealed in 2006 during a watching brief on test pits. This structure was fully excavated during the open area excavations in 2008. It proved to be part of the farmhouse of Tyddyn Pioden (structure 31174). See PRN 18403.
36276	Flint Flake, Findspot, Ty Mawr			
SH25573380989	Holyhead Urban	C	Prehistoric	A single struck flint flake was found while digging test pit 074 in 2006 (see figure 88 for location).
36277	Flint Scraper, Findspot, Ty Mawr			
SH2536280939	Holyhead Urban	C	Prehistoric	A small retouched flint flake scraper was found while digging test pit 105 in 2006 (see figure 46 for location).
36509	Merddyn Poeth (site of)			
SH2507981024	Holyhead Urban	C	Post Medieval	In 1768 the land was owned by a Mrs Morris and as it was not part of the Penrhos Estate the farmhouse is not shown on the map. The property is shown as an odd T-shape running between Tyddyn Pioden lands. However the house was shown on the 1817 map in roughly same position as the modern building. The field layout was also similar to recent times. The buildings were demolished in 2006 and the remains were examined as part of the Parc Cybi project, but no early structures were found under the stone, brick and concrete foundations of the recent house.
70620	Trefignath (site of)			
SH25798066	Trearddur	C	Post Medieval	Site of Trefignath Farm demolished in the 1970s. Some features remained until work related to the creation of Parc Cybi. Traces of the house were excavated and upstanding walls of outbuildings were recorded.
74683	Bank, Possible, Near, Ty Mawr Standing Stone			
SH2538380954	Holyhead Urban	U	Unknown	A possible bank associated with Ty Mawr Standing Stone. Anomaly located by geophysical survey.
74830	Structure, Parc Cybi			
SH 25567 80785			Late Neolithic/Beaker period	An area of sandy clay (90638) was found in the eastern part of roundhouse A. This appeared to be a floor surface with patches of charcoal indicating fire sites. It was surrounded by numerous postholes and other substantial postholes were found nearby underneath the Early Iron Age stone platform. The larger postholes seemed to form a small rectangular structure. Radiocarbon dates showed that this activity dated to about 2470-2200 cal BC. This would make it Beaker period in date but the presence of some sherds of Grooved Ware pottery in the area could hint that the occupants of the structure had a Late Neolithic rather than Beaker period culture.

PRN NGR (qualifier)	Site name Community Council	Importance	Period	Description
74831 SH2579280723	Pits, Parc Cybi Trearddur	A	Neolithic	Two pits (70173, 70181) and one posthole 70168. Pit 70173 was an oval shaped pit, its fill contained a large number of lithics and some sherds of pottery including a rim-sherd from a Fengate collared jar. Pit 70181 was more irregular and cut a burnt-out tree-root hollow (70150) at its western end. It also contained a number of finds including flint and a sherd and fragments compatible with Fengate ware. Feature 70168 was an oval posthole and contained no finds.
74832 SH2577080718	Pits, Parc Cybi Trearddur	A	Neolithic	Two large intersecting pits (70529 and 70503) with a complex sequence of fills. They contained many flint and chert flakes, some other worked stone and large pieces of Grooved ware pottery recovered. Near the pits was a posthole (70480), also containing a small sherds of Grooved ware. Radiocarbon dates indicate the pits were used sometime after 2900 cal BC.
76097 SH2570480652	Pit, Parc Cybi Trearddur	B	Neolithic	Small isolated pit (21037) containing sherds of Fengate Ware pottery and flint.
76098 SH2571080628	Pit, Parc Cybi Trearddur	B	Bronze Age	Small isolated pit (18059) containing fragments of pottery possibly from Middle Bronze Age sherds.
76099 SH2573880610	Pit, Parc Cybi Trearddur	B	Neolithic	Small isolated pit (19075) containing a heavy decorated collar sherd of a Fengate vessel and flint debitage.
76100 SH2565980774	Corn Dryer, Parc Cybi Trearddur	A	Early Medieval	Corn dryer [80835] cut into the demolition rubble at the corner of a square stone Roman period building. Radiocarbon dated to 5 th or 6 th centuries AD.
76101 SH2567180776	Corn Dryer, Parc Cybi Trearddur	A	Early Medieval	Corn dryer [80924] to the north-east of a square stone Roman period building. Radiocarbon dated to 5 th or 6 th centuries AD.
81341 SH25748067 (A)	Cist Burial, Possible, Trefignath Trearddur		Bronze Age?	Williams refers to a "seated" cist burial found near Trefignath tomb (Williams 1950, 95). This is almost certainly the same cistfaen as described by Jackson "just before you reach Trefigneth [coming from the standing stone], opposite a cow-shed, under the left-hand wall, a <i>cist faen</i> , or stone coffin, was found some time ago, containing a human skeleton" (Jackson 1853, 69). As Jackson was writing in 1853 and the cistfaen was found before that the tithe map is the most appropriate map to consult. This shows a single farmhouse at Trefignath, not the complex of barns that later developed but it does also show a small structure on the south-west side of the lane. This could possibly be Jackson's cowshed, with the cist under the wall of the lane on the left hand side and opposite the cowshed. A grid reference of approximately SH 2574 8067 might be suggested for this find. If Williams "seated" burial actually is a confusion for a crouched burial this may have been a Beaker burial roughly contemporary to the Parc Cybi cists. Williams, L., 1950. 'Prehistoric flint knapping at Holyhead', Transactions of the Anglesey Antiquarian Society and Field Club, 94-95; Jackson, T., 1853. <i>The Visitor's Hand-book for Holyhead</i> , Smith and Sons, London

PRN	Site name	Importance	Period	Description
NGR (qualifier)	Community Council			
81342	Gate posts, Trefignath			
SH 25912 80688			Post medieval	A pair of gateposts made from large roughly worked stone slabs set on end. Located in hedge and largely over-grown. Probably gate into the older Trefignath farmyard.
81343	Corn Dryer, Possible, Parc Cybi			
SH 25678 80708			Early medieval?	A shallow, irregularly shaped pit (22158) measuring 0.8m by 0.7m and up to 0.15m deep. It had evidence of intense burning on its base, stones in the base appeared burnt and it was filled by a densely charcoal-rich deposit. This may have been a corn dryer but it was rather damaged. It was not radiocarbon dated but all the other corn dryers on the site dated to the 5 th or 6 th centuries AD.

Appendix III: Table of Radiocarbon Dates

Lab ID	Context	Cut	Feature type	Sample	Material	$\delta^{13}\text{C}$ (‰)	Radiocarbon age (BP)	Calibrated date (95.4% probability)
<i>Question 1 – Area H: Early Neolithic building (PRN 31570)</i>								
SUERC-81328	50115	50116	hearth	1128	charcoal: hazel	-27.1	4929 ±22	3770–3650 cal BC
SUERC-81331	50161	50145	hearth	1170	charred cereal grain	-25.2	4931 ±24	3770–3650 cal BC
SUERC-81330	50189	50179	posthole	1188	charred hazelnut shell	-22.9	4817 ±23	3660–3530 cal BC
SUERC-81329	50235	50232	beam slot	1245	charred cereal grain	-26.3	4902 ±24	3710–3640 cal BC
SUERC-83260	50132	50133	hearth	1155	charred hazelnut shell	-25.6	4914 ±29	3770–3640 cal BC
SUERC-83261	50168	50167	posthole	1269	charred hazelnut shell	-25.4	4873 ±29	3710–3630 cal BC
SUERC-87063	50060	50059	pit	1088	charcoal: hazel	-27.1	4868 ±22	3700–3630 cal BC
SUERC-87064	50148	50179	gully	1193	charred cereal grain	-24.4	4926 ±25	3770–3650 cal BC
SUERC-87065	50183	50182	posthole	1186	charred cereal grain	-22.0	4836 ±21	3660–3530 cal BC
<i>Question 2 – Area H: Feature with cancell coal bead (PRN 74830)</i>								
SUERC-81332	50011	50010	posthole	1060	charred cereal grain	-24.3	4831 ±23	3660–3530 cal BC
SUERC-83265	50011	50010	posthole	1060	charred hazelnut shell	-23.7	4958 ±29	3790–3660 cal BC
<i>Question 3 – Area J: prehistoric pits and postholes</i>								
SUERC-81333	70528	70529	pit – Group II (PRN 74832)	5815	charred hazelnut shell	-23.0	4133 ±23	2880–2600 cal BC
SUERC-83266	70536	70529	pit – Group II (PRN 74832)	5822	charred hazelnut shell	-25.3	4195 ±29	2900–2670 cal BC
SUERC-81337	70502	70503	pit – Group II (PRN 74832)	5809	charcoal: hazel	-24.4	4175 ±23	2890–2670 cal BC
SUERC-83267	70502	70503	pit – Group II (PRN 74832)	5809	charred hazelnut shell	-24.8	4172 ±29	2890–2630 cal BC
SUERC-81338	70201	70202	conjoined postholes – Group V (PRN 31580)	1271	charred hazelnut shell	-26.7	5377 ±25	4330–4070 cal BC
SUERC-83268	70201	70202	conjoined postholes – Group V (PRN 31580)	1271	charcoal: hazel	-26.5	5089 ±29	3970–3800 cal BC
SUERC-81339	70055	70054	pit – Group V (PRN 31580)	1210	charred cereal grain	-26.6	3120 ±24	1450–1300 cal BC
SUERC-83269	70055	70054	pit – Group V (PRN 31580)	1210	charcoal: alder/hazel	-27.6	3039 ±29	1400–1210 cal BC
SUERC-81340	70451	70452	posthole – Group VI (PRN 31581)	5807	charred hazelnut shell	-25.5	3471 ±25	1890–1690 cal BC

Lab ID	Context	Cut	Feature type	Sample	Material	$\delta^{13}\text{C}$ (‰)	Radiocarbon age (BP)	Calibrated date (95.4% probability)
SUERC-83270	70451	70452	posthole – Group VI (PRN 31581)	5807	charcoal: willow/poplar	-26.4	3556 ±29	2020–1770 cal BC
SUERC-87066	70061	70062	posthole – Group III (PRN 31578)	1214	charcoal: hazel	-28.6	5439 ±23	4350–4250 cal BC
SUERC-87067	70061	70062	posthole – Group III (PRN 31578)	1214	charcoal: hazel	-27.5	7739 ±24	6640–6500 cal BC
<i>Question 4 – Area I: pit groups</i>								
SUERC-81341	18079	18078	pit – group 19073 (PRN 31598)	1008	charcoal: willow/poplar	-27.4	2236 ±24	390–200 cal BC
SUERC-83271	21041	21039	oven – group 19073 (PRN 31598)	1010	charcoal: young oak	-25.7	2311 ±29	420–230 cal BC
SUERC-81342	18064	18063	pit – PRN 31572	88	charred hazelnut shell	-26.3	4447 ±22	3330–3010 cal BC
SUERC-83275	21222	21221	pit – PRN 31572	1115	charred hazelnut shell	-28.0	4402 ±29	3270–2920 cal BC
SUERC-83276	21222	21221	pit – PRN 31572	1115	charred hazelnut shell	-26.7	4437 ±29	3330–2930 cal BC
SUERC-85149	21216	21215	pit – PRN 31572 (macehead)	1103	charred hazelnut shell	-23.8	4437 ±24	3330–2930 cal BC
SUERC-85150	21216	21215	pit – PRN 31572 (macehead)	1103	charred hazelnut shell	-25.4	4441 ±24	3330–2940 cal BC
<i>Question 5 – Area E: Neolithic activity (PRN 18406)</i>								
SUERC-81343	31024	31082	hollow	860	charred hazelnut shell	-25.0	4635 ±23	3510–3350 cal BC
SUERC-81347	31596	31595	pit	961	charred cereal grain	-23.5	4897 ±22	3710–3640 cal BC
SUERC-81348	31632	31631	posthole	1559	charred cereal grain	-23.9	4941 ±24	3780–3650 cal BC
SUERC-83277	31510	31509	pit	924	charred hazelnut shell	-29.2	3772 ±29	2300–2050 cal BC
SUERC-83278	31609	31608	pit	968	charred hazelnut shell	-27.6	5601 ±29	4490–4360 cal BC
<i>Question 6 – Area E: large burnt mound (PRN 31582)</i>								
SUERC-81349	31372	31414	pit	940	charcoal: alder/hazel	-27.3	3586 ±24	2020–1880 cal BC
SUERC-81350	31370	31415	large pit/well	917	charcoal: alder/hazel	-25.2	3699 ±22	2200–2020 cal BC
SUERC-81351	31561	31415	large pit/well	947	charcoal: willow/poplar	-24.8	3812 ±24	2340–2140 cal BC
SUERC-81352	31594	31593	large pit/well	960	charcoal: alder/hazel	-27.3	3850 ±22	2460–2200 cal BC
<i>Question 7 – Area E: small burnt mound (PRN 31583)</i>								
SUERC-81353	31002		burnt mound	1450	charcoal: hazel	-25.5	4126 ±24	2870–2580 cal BC

Lab ID	Context	Cut	Feature type	Sample	Material	$\delta^{13}\text{C}$ (‰)	Radiocarbon age (BP)	Calibrated date (95.4% probability)
SUERC-83279	31002		burnt mound	1450	charcoal: hazel	-25.6	4185 ±29	2890–2670 cal BC
<i>Question 8 – Area B1: pit group 25046 (PRN 31592)</i>								
SUERC-83280	10002	10001	pit	17	charcoal: willow/poplar	-25.4	2009 ±29	60 cal BC–cal AD 70
SUERC-83281	10013	10012	pit	30	charcoal: willow/poplar	-26.1	2098 ±29	200–40 cal BC
SUERC-83285	11021	11019	pit	66	charcoal: hazel	-25.5	1910 ±29	cal AD 20–210
<i>Question 9 – Area L3: structure 22171 (PRN 31593)</i>								
SUERC-87071	22168		hearth	1131	charred cereal grain	-25.1	127 ±24	cal AD 1680–1940
SUERC-87072	22144		occupation layer	1136	charred cereal grain	-25.0*	2014 ±21	60 cal BC–cal AD 60
<i>Question 10 – Area D3: hearth and pit group (PRN 31574)</i>								
SUERC-81357	60100	60093	pit	1181	charred hazelnut shell	-24.2	4105 ±24	2860–2570 cal BC
SUERC-83286	60092	60093	pit	1180	charred hazelnut shell	-23.6	4110 ±29	2870–2570 cal BC
SUERC-85151	60163	60162	pit	1190	charred hazelnut shell	-27.0	4050 ±20	2840–2480 cal BC
<i>Question 12 – Area K9: pit group (PRN 31573)</i>								
SUERC-81359	80638	80594	pit	5146	charred hazelnut shell	-23.2	4500 ±24	3350–3090 cal BC
SUERC-81358	80684	80686	pit	5159	charred hazelnut shell	-26.5	4510 ±24	3350–3100 cal BC
SUERC-83287	80685	80686	pit	5160	charred hazelnut shell	-24.7	4485 ±29	3350–3030 cal BC
<i>Question 16 – Area K9: postholes, pits and fire-pits (PRN 31596)</i>								
SUERC-81361	80555	80556	pit	5132	charcoal: willow/poplar	-27.0	1939 ±24	cal AD 10–130
SUERC-83289	80559	80560	pit	5133	charcoal: willow/poplar	-26.4	2217 ±29	380–200 cal BC
SUERC-81360	80561	80562	pit	5134	charred cereal grain	-22.5	1849 ±24	cal AD 80–240
SUERC-83288	80561	80562	pit	5134	charcoal: oak twig	-26.6	1844 ±29	cal AD 80–240
<i>Question 17 – Area K9: corn dryers [80924] and [80835] (PRN 76100 and 76101)</i>								
SUERC-85152	80837	80835	corn dryer	5602	charred wheat grain	-22.2	2193 ±21	360–190 cal BC
SUERC-85153	80885	80835	corn dryer	5609	charred barley grain	-22.2	1498 ±24	cal AD 470–640
SUERC-85154	81034	80924	corn dryer	5682	charred wheat grain	-25.0	1538 ±24	cal AD 420–580
SUERC-85158	81072	80924	corn dryer	5685	charred oat grain	-23.1	1577 ±24	cal AD 420–550
<i>Question 19 – Area K7: metal-working pit within cemetery (PRN 31600)</i>								
SUERC-81362	80013	80044	pit		charcoal: young oak	-24.6	1650 ±24	cal AD 330–530

Lab ID	Context	Cut	Feature type	Sample	Material	$\delta^{13}\text{C}$ (‰)	Radiocarbon age (BP)	Calibrated date (95.4% probability)
SUERC-81363	80013	80044	pit		charcoal: young oak	-25.4	1694 ±24	cal AD 250–410
<i>Question 20 – Corn dryers (PRN 31601, 31602, 31603 and 31604)</i>								
SUERC-85159	80127	80056	corn dryer	789	charred wheat grain	-23.7	1513 ±24	cal AD 430–610
SUERC-85160	80127	80056	corn dryer	789	charred barley grain	-22.4	1563 ±24	cal AD 420–550
SUERC-85161	21231	21229	corn dryer	1123	charred wheat grain	-22.7	1541 ±21	cal AD 420–580
SUERC-85162	21231	21229	corn dryer	1123	charred barley grain	-21.9	1591 ±24	cal AD 410–540
SUERC-85163	80139	80137	corn dryer	1403	charred wheat grain	-23.9	1555 ±24	cal AD 420–560
SUERC-85164	80139	80137	corn dryer	1403	charred oat grain	-25.0	1577 ±24	cal AD 420–550
SUERC-85168	21052	21051	corn dryer	1026	charred barley grain	-24.2	1535 ±20	cal AD 420–590
SUERC-85169	21052	21051	corn dryer	1026	charred oat grain	-24.7	1555 ±24	cal AD 420–560
<i>Question 21 – Areas M2 and M4: Bronze Age monuments (PRN 31591)</i>								
SUERC-83290	22108	22111	ditch	1070	charcoal: hazel	-26.3	2921 ±29	1220–1020 cal BC
SUERC-84056	22108	22111	ditch	1070	charcoal: hazel	-25.7	2907 ±24	1200–1010 cal BC
<i>Question 23 – Area K1: pits near possible Bronze Age roundhouse (PRN 31588)</i>								
SUERC-81367	18125	18124	?fire pit	1010	charred hazelnut shell	-25.7	2474 ±24	770–480 cal BC
SUERC-83291	18125	18124	?fire pit	1020	charred hazelnut shell	-23.8	3000 ±29	1380–1120 cal BC
SUERC-81368	19110	20081	fire pit	1004	charred ?barley grain	-24.9	3291 ±24	1630–1500 cal BC
SUERC-83295	19110	20081	fire pit	1004	charred cereal grain	-22.8	3234 ±29	1610–1430 cal BC
<i>Question 25 – Area K7: clay-walled roundhouses (PRN 31595)</i>								
SUERC-81369	80408	80409	posthole – RH 80248	1525	charred cereal grain	-22.2	2210 ±24	370–200 cal BC
SUERC-81370	80370	80259	drain – RH 80248	1520	charred cereal grain	-22.8	2385 ±24	540–390 cal BC
SUERC-81371	80358		roof collapse? – RH 80248	1485	charcoal: young oak	-25.6	2330 ±22	420–370 cal BC
SUERC-81372	80203	80186	posthole – RH 80249	1429	charred cereal grain	-22.3	>50,000	
SUERC-81373	80219	80218	stakehole – RH 80249	1436	charcoal: alder/hazel	-25.0*	2286 ±24	410–230 cal BC
SUERC-87073	80228		hearth deposit – RH 80249	1443	charred cereal grain	-21.1	2300 ±20	410–360 cal BC
SUERC-87074	80334		roof collapse? – RH 80248	1478	charred wheat spikelet forks, glume bases, and chaff culms	-24.2	2148 ±24	360–100 cal BC

Lab ID	Context	Cut	Feature type	Sample	Material	$\delta^{13}\text{C}$ (‰)	Radiocarbon age (BP)	Calibrated date (95.4% probability)
SUERC-87075	80334		roof collapse? – RH 80248	1535	charred wheat spikelet forks, glume bases, and chaff culms	-24.5	2215 ±24	370–200 cal BC
<i>Question 26 – Area B2: stone-walled roundhouses (PRN 14599)</i>								
Phase Ia (Late Neolithic/Beaker)								
SUERC-81377	90638	90509	?hearth – under RHA	163	charcoal: alder/hazel	-27.4	3854 ±24	2460–2200 cal BC
SUERC-87582	90638	90509	?hearth – under RHA	164	charcoal: hazel	-25.0*	3867 ±24	2470–2230 cal BC
SUERC-87076	90824		hearth – under RHA	205	charcoal: hazel	-25.4	3926 ±20	2480–2340 cal BC
Phase Ib (Early Iron Age)								
SUERC-87583	90576		occupation deposit - platform	236	charcoal: willow/poplar	-26.2	2802 ±24	1020–890 cal BC
SUERC-83296	90832		?occupation deposit - plat- form	204	charcoal: willow/poplar	-26.3	2580 ±29	820–590 cal BC
SUERC-84057	91906		deposit – platform under RHE	495	charcoal: hazel	-27.4	2575 ±24	810–590 cal BC
SUERC-87077	90833		deposit – platform under RHA	207	charcoal: hazel	-26.0	2824 ±24	1050–910 cal BC
SUERC-87086	92148		?occupation deposit – RHE	684	charred cereal grain/chaff	-27.3	2754 ±24	980–830 cal BC
Phase II (Middle Iron Age)								
SUERC-87081	92169	91660	pit – RHA	526	charcoal: willow/poplar	-26.6	2735 ±21	920–820 cal BC
SUERC-81378	91620	91619	hearth – RHB	393	charcoal: willow/poplar	-26.9	2196 ±22	370–190 cal BC
SUERC-87083	91664		floor – RHB	398	charred cereal grain	-22.9	2217 ±24	370–190 cal BC
SUERC-87082	92040		burnt deposit – under RHC	492	charcoal: willow/poplar	-26.5	2306 ±24	410–260 cal BC
SUERC-83297	92141		hearth – RHE	682	charred cereal grain	-22.5	2223 ±29	380–200 cal BC
SUERC-87085	92147		hearth – RHE	683	charcoal: willow/poplar	-25.6	2206 ±24	370–200 cal BC
SUERC-87087	92961		burnt stone layer – RHI	806	charcoal: oak twig	-25.9	3839 ±21	2460–2200 cal BC
SUERC-87091	93430	93428	pit – RHI	5069	charred cereal grain	-22.4	2209 ±24	370–200 cal BC
SUERC-83298	93598		burnt stone layer – RHI	5098	charred cereal grain	-25.0*	2209 ±29	370–190 cal BC
Phase III (Middle Iron Age)								
SUERC-83299	90571	90570	drain – RHA	145	charred hazelnut shell	-26.4	5741 ±29	4690–4500 cal BC

Lab ID	Context	Cut	Feature type	Sample	Material	$\delta^{13}\text{C}$ (‰)	Radiocarbon age (BP)	Calibrated date (95.4% probability)
SUERC-87092	90632		hearth – RHA	178	charred cereal grain/chaff	-22.5	2219 ±24	370–200 cal BC
SUERC-87093	90863	90864	stakehole – RHA	212	charcoal: oak twig	-25.0*	2252 ±24	400–200 cal BC
SUERC-87084	90806		hearth – RHB	407	charcoal: Rosaceae	-26.1	2156 ±20	360–110 cal BC
SUERC-81379	91015	91014	burnt patch – RHB	286	charred ?wheat grain	-25.0*	2217 ±22	370–200 cal BC
SUERC-87094	91434		hearth – RHC	372	charred cereal grain	-25.0*	1909 ±21	cal AD 50–140
SUERC-83300	91624		hearth – RHC	428	charcoal: hazel	-27.4	2333 ±29	490–360 cal BC
SUERC-83301	92822		occupation layer – RHH	727	charred cereal grain	-25.0*	2247 ±29	400–200 cal BC
<i>Question 27 – Area F1: burnt soil horizon and marsh edge</i>								
SUERC-83305	93466		old ground surface	5085	charcoal: hazel	-28.1	3868 ±29	2470–2210 cal BC
KIA-40120	93466		old ground surface	5056	charcoal: unidentified wood	-24.98	3543 ±31	1970–1760 cal BC
KIA-40119	93358		bark deposit	5037	bark: ?birch	-27.17	8865 ±42	8230–7820 cal BC
<i>Question 28 – Area B2: structure F (PRN 14599)</i>								
SUERC-83306	90711	90741	posthole	200	charred cereal grain	-22.6	2213 ±29	370–200 cal BC
SUERC-83307	90711	90741	posthole	200	charred cereal grain	-28.2	3015 ±29	1390–1130 cal BC
<i>Smithing activity</i>								
SUERC-87440	90036	90037	pit	123	charcoal: oak	-23.5	> 50,000	
SUERC-87441	90036	90037	pit	123	charcoal: oak	-23.5	> 50,000	
SUERC-87442	31153	31152	Pit (PRN 18403)	878	charcoal: oak twig	-25.4	956 ±30	cal AD 1020–1160
SUERC-87443	31153	31152	Pit (PRN 18403)	878	charcoal: oak twig	-24.9	922 ±30	cal AD 1020–1190

* assumed value

Appendix IV: Table of roundhouse diameters from sites on Anglesey

This list compiled largely from data gathered by George Smith in 1999 for a Cadw funded project on hut circle settlements (GAT project code G1104). The information is from a database created for that project but does not necessarily appear in the report on the project (Smith 1999). Some more recently excavated sites have been added. Only roundhouses with measurable diameters have been included and these diameters are not perfectly comparable as some are from excavated sites, some from earthworks or collapsed walls and others the diameters of platforms rather than houses themselves. It is not entirely clear whether all these are internal diameters. This information must be considered only a general indication of the size of the roundhouses on Anglesey.

PRN	Site Name	Diameter (m)	House type
60	Pant y Saer Hut Circle Settlement, Benllech		
		7	stone-walled
		9	stone-walled
1548	Hut Group, Tyddyn Sadler, Llangristiolus		
		10	platform
1552	Hut Circle Settlement, Bodafon Mountain		
		6	stone-walled?
		7	stone-walled?
		7	stone-walled?
		7	stone-walled?
		7	stone-walled
		7	stone-walled?
1632	Caer Machod Hut Group, Llanidan		
		3	stone-walled
		7	stone-walled
		7	stone-walled
		7	stone-walled
1753	Hut Circles, Capel Llochwydd, Trearddur		
		3	stone-walled
		3	stone-walled
		3	stone-walled
1755	Hut Circles, Holyhead Mountain		
		4	stone-walled
		5	stone-walled
		5	stone-walled
		5	stone-walled
		6	stone-walled
		6	stone-walled
		6	stone-walled
		6	stone-walled
		6	stone-walled
		7	stone-walled
		8	stone-walled
		8	stone-walled
		9	stone-walled
		9	stone-walled
		12	stone-walled

PRN	Site Name	Diameter (m)	House type
2000	Ynys Leurad Settlement, Valley		
		7	earthwork
		7	earthwork
		8	earthwork
2003	Hut Circle Settlement, Trearddur		
		5	stone-walled?
2111	Hut Group, Site of, Tre Beirdd, Llanddyfnan		
		8	earthwork
		8	earthwork
		8	earthwork
2127	Hut Group (Enclosed), Bwlch-y-dafarn, Moelfre		
		4	stone-walled?
2128	Caerhoslligwy Enclosed Hut Group (a), Llaneugrad		
		6	platform
		7	platform
		7	earthwork
		7	stone-walled
2129	Caerhoslligwy Hut Group (b), Llaneugrad		
		4	earthwork
		5	earthwork
		6	earthwork
2131	Parc Salmon Hut Group, Moelfre		
		7	stone-walled
2132	Din Lligwy Hut Circle Settlement, Moelfre		
		7	stone-walled
		7	stone-walled
2520	Castellor Hut Group, Bryngwran		
		8	stone-walled
		8	stone-walled
		8	stone-walled
		8	stone-walled
		10	stone-walled
		10	stone-walled
2535	Hut Group, Remains of, Aberffraw		
		4	platform
2537	Roman Settlement, Remains of, Llangoed		
		4	platform
		4	platform
		5	earthwork
		5	earthwork
		6	earthwork
		6	earthwork

PRN	Site Name	Diameter (m)	House type
2546	Hut Group, Tyn-y-gate, Llangoed		
		8	stone-walled?
		8	stone-walled?
		8	stone-walled?
		8	stone-walled?
2547	Hut Group, Fedw Fawr, Llangoed		
		7	stone-walled?
		8	stone-walled?
		9	stone-walled?
2548	Hut Group, Llangoed		
		6	earthwork
		6	earthwork
		6	earthwork
		6	earthwork
		10	earthwork
2551	Hut Group and Field System, Penmon Deer Park		
		6	stone-walled?
		9	stone-walled?
		10	stone-walled?
2554	Hut Group, Site of, Penmon		
		4	platform
		4	stone-walled?
		5	stone-walled?
		6	stone-walled?
		6	platform
		6	earthwork
		6	stone-walled?
		6	earthwork
		6	platform
		7	platform
		9	earthwork
		9	stone-walled?
2588	Hut Group, Penmon Deer Park		
		6	earthwork
2599	Hut Group, Llaniestyn, Llanddona		
		8	stone-walled
		8	stone-walled
		10	stone-walled
2639	Hut Group, Site of, Llangeinwen		
		6	platform
		6	platform
2663	Hut Circle, Llanddona		
		6	earthwork
2713	Field System and Huts, Llandysilio		
		8	platform

PRN	Site Name	Diameter (m)	House type
2752	Plas Meilw Hut Circles, Trearddur	5	earthwork
		6	earthwork
		7	earthwork
2754	Hut Circle Settlement, Porth Dafarch	5	stone-walled
		10	stone-walled
3006	Hut Circle, S of Aberffraw		
		4	stone-walled?
3137	Caer Leb Enclosure, Llanidan		
		6	stone-walled
3138	Pont Sarn-las Hut Group, Brynsiencyn		
		7	platform
		7	platform
3144	Hill-top Enclosure, W of Bwlch, Mechell		
		6	platform
		6	platform
3147	Hut Group, Site of, SW of Tyddyn Prior, Llanidan		
		7	stone-walled?
		7	stone-walled?
		7	stone-walled?
		7	stone-walled?
3169	Circular Features, SE of Hen-dy, Llangaffo		
		7	crop mark
		7	crop mark
3447	Hut Group, West of Pont y Crug, Llanddaniel Fab		
		3	stone-walled?
		4	stone-walled?
		6	stone-walled?
		7	platform
3595	Hut Group, N of Glanrafon		
		8	stone-walled
3609	Hut Group, NE of Bryn Engan, Llanfair-Mathafarn-Eithaf		
		4	stone-walled
		7	stone-walled
		7	stone-walled
3611	Marianglas Hut Group, Meolfre		
		10	stone-walled
		5	stone-walled?
		9	stone-walled?

PRN	Site Name	Diameter (m)	House type
3830	Hut Group and Field System, Mynydd Llwydiarth, Pentraeth		
		6	platform
		6	stone-walled?
5220	Hut Circle (Possible) and Enclosure, Graig Wen, Llanbadrig		
		8	stone-walled
5524	Hut Group, Bodafon Mountain		
		4	stone-walled?
		10	stone-walled?



Llywodraeth Cymru
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