# Ysgol yr Hendre, Llanbeblig, Caernarfon

# Report on Archaeological Excavations





Ymddiriedolaeth Archaeolegol Gwynedd Gwynedd Archaeological Trust

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# **Report on Archaeological Excavations**

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Front cover: Site under excavation (aerial photograph courtesy of Gwynedd Archaeological Planning Service) and plan of part of the cemetery

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# YSGOL YR HENDRE, LLANBEBLIG, CAERNARFON (FORMERLY CAE TY GWYN PLAYING FIELDS AND ENVIRONS)

## **Report on Archaeological Excavations**

# 1. SUMMARY

# **1.1. Introduction**

Gwynedd Archaeological Trust (GAT) was commissioned by Cyngor Gwynedd Council to complete a programme of archaeological mitigation in advance of the construction of a new school and associated road to the northern side of Llanbeblig Road, Caernarfon, Gwynedd (centred on SH 4897 6236, figure 1).

The project covered four plots, A-D, and was monitored on behalf of the local planning authority by Gwynedd Archaeological Planning Services. The fieldwork was carried out in 5 phases. Phases I and II have been described in GAT reports 773, 783 and 840. This document presents the excavation results of phases III to V. Below is a summary of the results.

# 1.2. Results

Phase III consisted of evaluation trenching informed by geophysical survey. This led to larger scale archaeological mitigation comprising the stripping of topsoil and ploughsoil from Plots A, C, D, and part of Plot B, and the excavation of identified features (figure 2). The main focus of the excavation was an early medieval cemetery, and associated mortuary enclosures. The main part of the cemetery was in plot A and consisted of 3 square mortuary enclosures surrounded by graves. To the north in plot B were 2 more mortuary enclosures but these had no surrounding graves, only a single grave in the middle of each.

In addition to the cemetery a series of ovens was found, mostly in and around the cemetery in plot A, with two ovens in the northern part of plot B. Radiocarbon dating demonstrated that these were of Roman date and appear to have dated from a time very close to the construction of Segontium fort. These possibly represent a camp for the builders of the fort.

A prehistoric pit and some medieval features were found including a corn drier in the middle of the cemetery cutting several graves. Several ditches were found, some clearly of 19<sup>th</sup> century date and some earlier. The remains of a small late 19<sup>th</sup> century farmstead and large glasshouse complex were also recorded.

## **1.3. Storage and curation**

The finds (including charred plant remains) are held at Gwynedd Art Gallery and Museum, Bangor, and the digital and paper record is held by the Royal Commission on the Ancient and Historic Monuments of Wales, Aberystwyth.

# 2. INTRODUCTION

# 2.1. Project background

Gwynedd Archaeological Trust (GAT) has completed a programme of archaeological mitigation on land formerly known as Cae Tŷ Gwyn playing fields, Llanbeblig, but now the site of Ysgol yr Hendre. The work was carried out in several phases for Cyngor Gwynedd Council, in advance of the construction of the school, and was monitored on behalf of the local planning authority by Gwynedd Archaeological Planning Services (GAPS).

The mitigation area was divided into four adjacent plots (Figure 2):

- Plot A 1.5ha: an irregular shaped pasture field formerly used for recreation (centred on SH48906230)
- Plot B 2.3ha: an irregular shaped pasture field formerly used for recreation (centred on SH49106244). Although geophysical survey was carried out over all plot B only the western end of this plot was directly impacted by the development and so only a small part was stripped.

Plot C – 0.53ha: an irregular shaped pasture field recently unused scrub (centred on SH48916219)

Plot D - 0.15ha: an irregular shaped plot, recently abandoned and overgrown (centred on SH48936226)

**Phase I** involved an assessment of plot A (desk-based research and a walkover survey) followed by a geophysical magnetometer survey of this plot. The results of Phase I are described in GAT Report **773** (Kenney and Hopewell 2009). In addition to this geotechnical test pits in plot A were monitored, and the results of this are described in GAT Report **783** (Kenney 2009).

The **Phase II** programme of works comprised an initial evaluation of plots B and C (desk based assessment, geophysical magnetometer survey and one evaluation trench in plot A). The evaluation trench was dug between 7<sup>th</sup> and 14<sup>th</sup> December 2009, and the results are described in GAT report **840** (Jones and Rees 2009).

Following this **Phase III** was a programme of targeted trenching/limited excavation commencing on 25<sup>th</sup> January 2010 and completed on 24<sup>th</sup> February 2010.

**Phase IV** involved the stripping of soil from plots A, C and D with plot B being used for soil storage. All archaeological features and deposits found were investigated, leading to open area excavation of the site. This phase of work started on  $5^{\text{th}}$  April 2010 and was completed on  $30^{\text{th}}$  July 2010.

**Phase V**: After a watching brief on plots A and B further excavation was undertaken in plot B between 16<sup>th</sup> May 2011 and 27<sup>th</sup> May 2011.

The present document reports on the results of the excavations and post-excavation analysis fieldwork phases III to V.

## 2.2. Acknowledgements

The work was funded by Cyngor Gwynedd Council and GAT would like to thank Richard Farmer, who over-saw the project for the council. GAT would like to acknowledge the assistance and cooperation provided by our groundwork contractor O Jones throughout all elements of the scheme, and the team of site archaeologists for their dedicated work. GAT would also like to acknowledge the guidance and assistance provided by Gwynedd Archaeological Planning Services, both in terms of spearheading the project and in providing advice during the fieldwork element. The phase II and III evaluation trenching was carried out by Cat Rees, Matt Jones, Laura Parry, Iwan Parry and Neil McGuinness. The phase IV fieldwork was directed by Ken Owen; his team consisted of Liz Chambers, Jess Davidson, Matt Jones, Peter Jones, Chris Lane, and Anne Marie Oattes. The phase V fieldwork was undertaken by Peter Jones, Macsen Flook and Jane Kenney with the help of Rob Evans and Rich Cooke. GAT would also like to acknowledge the contribution made by specialists listed in appendix I, and the wet sieving/flotation team Richard and Gill Collier. Thanks to Archaeology Wales for unpublished information on their archaeological evaluation of the adjacent field.

# 3. PROJECT AIMS AND OBJECTIVES

The aim of the project was to mitigate the impact of the scheme upon the archaeological resource. This was achieved by a staged programme of archaeological assessment and mitigation comprising:

- a review of existing information,
- a phase of evaluation involving geophysical survey and trial trenching,
- a programme of strip, map and sample excavation,
- followed where necessary by detailed area excavation.

The purpose of the mitigation was to gain information about the archaeological resource within the development area in order to make an assessment of its merit in the appropriate context, leading to the formulation of a strategy to ensure the recording, preservation or management of the resource.

The objective of the post-excavation analysis and report writing was to prepare an archaeological archive of the site to ensure a thorough understanding and the long-term curation of the recovered data. This included the treatment and preservation of finds, deposition of the archive at agreed repositories, and the detailed analysis and publication of results to an appropriate level in line with nationally defined guidelines.

This project has been managed in accordance with the standards defined in *Management of Archaeological Projects* (English Heritage, 1991), and conforms to the *Management of Research Projects in the Historic Environment Project Manager's Guide* (English Heritage 2009).

# 4. BACKGROUND INFORMATION

# 4.1. Topographic and geological background

Prior to the development the area was partly used as a football ground and a children's play area, with a playing field to the north and rough, partly overgrown ground in the southern part. The site had a pasture field to the east, which is currently under development, to the south-west is the graveyard of Llanbeblig Church and to the west and north there is housing. Much of the area was under short grass but there was an extensive area of dumped rubble over-grown by rough vegetation towards the southern part of the site and the demolished, over-grown remains of a club hut in the northern part.

The land was generally flat with a slight slope down towards the south-west. The site lies between 50 and 40m OD on a ridge of ground between the rivers Seiont and Cadnant that flow through the town of Caernarfon into the Menai Strait. The development area is on the eastern edge of the town, where it opens into agricultural land comprising mainly small pasture fields.

The rocks underlying Caernarfon are Ordovician shales and these are overlain by glacial drift (Davies 1977 and Casey and Davies 1993, 1). In their excavations of the Roman fort Casey and Davies noted that the subsoil was boulder clay mixed with deposits of coarse, orange gravel (Casey and Davies 1993, 1), and a stony boulder clay was exposed in the test pits dug at the start of this project (GAT Report 783 (Kenney 2009)).

# 4.2. Archaeological and historical background

The site lies over 1km east of the walled town of Caernarfon but only 300m east of the Roman fort of Segontium. Although now on the very edge of the urban development of Caernarfon it was in a rural setting for most of its history; with the exception of the Roman period when it was on the outer limits of the immediate hinterland of the fort. See figure 3 for location of sites mentioned below.

Prehistoric sites are scarce in this area. A Bronze Age burial urn (PRN<sup>1</sup> 3101) was found at Maes y Barcer to the north of the study area, and several prehistoric finds have been recovered during excavations in the Roman fort of Segontium including three polished stone axes and two bronze axes. Two stone-axe hammers (PRN 3113) and a bronze axe (PRN 3121) were recovered from this side of Caernarfon but their provenance is not accurately known. The standing stone (PRN 3620) in the field

<sup>&</sup>lt;sup>1</sup> Primary Record Number in the Gwynedd Historic Environment Record

to the east of the site seems to be rather small and may be a post medieval cattle rubbing stone rather than a prehistoric standing stone.

Segontium (PRN 3089) was a 2.27 hectare fort forming part of a network of forts in Snowdonia. Casey and Davies (1993, 10) conclude that "the balance of probability indicates that the site [Segontium] is Agricolan and dates to 77 AD or shortly after<sup>2</sup>." The fort would have been built after Gnaeus Iulius Agricola suppressed a rebellion of the Ordovices and occupied Anglesey (Nash-Williams 1969, 5). Segontium would probably have been garrisoned by a 1000-strong infantry unit commanded by a senior officer, and in the early period it was the largest fort in North Wales (Casey and Davies 1993, 10). At the end of the Trajanic period (c. 117 AD) the garrison seems to have been reduced with barracks being demolished and a decline in pottery and coins (Casey and Davies 1993, 11). Although the garrison was reduced several high status buildings were constructed, possibly for a procurator overseeing mining in north Wales (Casey and Davies 1993, 13-14). In the late 3<sup>rd</sup> and 4<sup>th</sup> centuries the fort seems to have been more densely occupied. The supply of coins seems to have ended around 393 AD and Casey (1993, 132) suggests that the garrison was withdrawn by Eugenius, who briefly held the Western Empire, to help defend his position.

The larger part of the fort was excavated by REM Wheeler in 1922 (Wheeler 1922, 1923a and 1923b), with the southern corner excavated by PJ Casey and JL Davies in 1975-79 (Casey and Davies 1993)

There was a substantial *vicus* (civilian settlement) to the north-west, west and south of the fort, but there is little evidence of it continuing beyond the end of the  $2^{nd}$  century AD (Hopewell 2003, Hayter 1921). This included industrial activity to supply the army as well as the civilian population (White 1985). There appear to have been bath-houses outside the fort on the south-western side, as well as inside the southern corner of the fort (Nash-Williams 1969, 168). West of the fort, on the banks of the Afon Seiont, a walled enclosure known as Hen Waliau (PRN 3090), probably a storage depot, was built in the 4<sup>th</sup> century AD. This overlooked the site of an "immense wooden bridge" the remains of which were found in 1817, and were assumed to be part of a Roman bridge (PRN 5564) (Boyle 1991, 211).

Roman cremation burials (PRN 3092) were discovered while digging graves in the New Cemetery from about 1850 through to 1947 (RCAHMW 1960, 163). This appears to have been a major Roman cemetery located, as was usual, next to a main road; the modern Ffordd Llanbeblig being on the line of part of the Roman road leading east from the fort to Tomen y Mûr (PRN 17533) (Hopewell 2007, 12). A Roman temple to the god Mithras (PRN 3098) was also found to the east of the fort (Boon 1960). Two 1<sup>st</sup> to 2<sup>nd</sup> century sherds from earth beneath the Mithraeum suggest that it was constructed about 200 AD (Boon 1960, 144).

The cemeteries revealed during the present excavations were first indicated by aerial photographs of the football field taken in July of 2006 by Toby Driver of RCAHMW (Driver 2006). These revealed a parchmark which he interpreted as a square barrow with a central grave pit (plate 1). The same feature could be seen on the geophysical survey carried out for this project. Previously the only potential early medieval site known in the area was the church dedicated to Saint Peblig (PRN 6942). Although this is first mentioned in the 13<sup>th</sup> century (RCAHMW 1960, 119), and most of the present structure dates from the 14<sup>th</sup> century or later (Davidson 1997, 171-3), it is suggested that this church has an early foundation. This claim rests largely on the dedication to Saint Peblig, traditionally thought to have lived in the late Roman period (RCAHMW 1960, 119), and its siting alongside the Roman road close to the earlier cemetery (Davidson 2009). Peblig is the Welsh version of the Latin name Publicus or Publicus, and Casey and Davies (1993, 16) suggest this could indicate a continuation of both a Roman cult and population after Segontium was abandoned.

There are other hints of early medieval activity centred on the fort. Wheeler excavated a small guardroom or sentry-box built inside a guardroom of the south-western gate of the fort. The walls are described as "flimsy" and bonded with clay rather than mortar so Wheeler ascribes an early medieval date to its construction (Wheeler 1922, 266). Wheeler also found an L-shaped section of "very rough wall of unmortared glacial boulders" built over the southern part of the courtyard of the principia

<sup>&</sup>lt;sup>2</sup> See Hanson 1987, 41-45 for a detailed argument redating Agricola's governorship for 78-84 AD to 77-83 AD.

(Wheeler 1922, 296), and concluded that this was probably post-Roman in date from its stratigraphical position.

In the area of the south-western gate a coin of the Northumbrian king Eanred (808-840 AD) was found (Wheeler 1922, 266). A coin of Cnut was found in the upper fill of the outer fort ditch near the north gate (Casey 1974, 71). The coins hint at early medieval use of the fort, although they could have been dropped during stone quarrying activities (Casey and Davies 1993, 16-17).

A motte and bailey castle was built by the Normans north-west of the Roman fort and settlement, at the mouth of the River Seiont. Established by 1093, this was to become the focus of a Welsh settlement and court until the conquest of Edward I in 1283. Edward replaced the Welsh settlement with an English garrison borough and a castle. Construction on the walled town and castle started in 1283 and work went on until c.1330. The borough was established by charter in 1284 and the town was the capital of the principality of Wales until 1536, and later became the county town (RCAHMW 1960, 115-118).

In 1918 the eastern spread of the town of Caernarfon had only just reached the Roman fort. By 1938 the housing estates off Ffordd Maes y Barcer were built, and in the early 1960s the Tŷ Gwyn estate was built adjacent to the site (Ordnance Survey maps 1918 to 1965). A late eighteenth century Vaynol Estate survey (Vaynol Papers 4056, 1777) (figure 34) shows that the field pattern dates to at least the late eighteenth century and has changed little since. The churchyard has expanded, a few minor boundaries have come and gone, and the road was straightened but the fields are easily recognisable.

By 1889 three small buildings are shown in plot D and by 1918 these had been converted into an enclosed rectangular farmyard, with additional buildings and a small paddock. By 1918 Plot C was dominated by substantial glasshouses, but the rest of the site remained fields until by 1983 plot A had become a football ground with a club hut (Ordnance Survey maps 1889 to 1983).

# **5. PROJECT METHODOLOGIES**

## 5.1. Fieldwork Methodology

## 5.1.1. Phase 3: evaluation trenches

Between 25<sup>th</sup> January 2010 and 24<sup>th</sup> February 2010 seven evaluation trenches were excavated in plots A, B and C (figure 2). The trenches were located to investigate features identified in the assessment and geophysical surveys. All modern overburden and ploughsoil was removed using a 1.5 tonne mechanical excavator down to the level of the first recognisable archaeological horizon. All archaeological contexts subsequently located were sampled in order to define their function, date, and relationship to adjacent features.

The results of the trenching informed the following mitigation phase and most of the features revealed were more thoroughly investigated in phase 4. The results of the trenching are therefore described in appendix III and not included in the main description of field results below.

## 5.1.2. Phase 4: area stripping

The archaeological mitigation comprised the removal of most of the topsoil and ploughsoil from plots A, C and D as well as a part of plot B. All the soil stripping was undertaken using a 13 tonne 360 degree mechanical excavator with a toothless ditching bucket under constant archaeological supervision.

All potential features revealed were numbered, surveyed using a total station theodolite and evaluated. Detailed excavation and recording was undertaken on all significant archaeological features. These were photographed before and after excavation, excavated, planned to a scale of 1:20 with sections drawn to a scale of 1:10 and a written record produced. A total of 10% of each linear feature was excavated. Pits and ovens were generally half sectioned but selected well-preserved examples were fully excavated. The graves and mortuary enclosures were fully excavated. Intensive cleaning was carried out around the mortuary enclosures to ensure that all graves were located.

After the main phase of excavation between April and August 2010 watching briefs were undertaken on the remaining areas of plots C and D between the end of November and beginning of December 2010, and on plot B in May 2011. The latter watching brief identified two more mortuary enclosures and other features, which were evaluated and then excavated as described above.

Bulk soil samples were taken from features containing charcoal and/or finds. Bulk soil samples were also taken from the base of the graves in an attempt to recover fragments of tooth enamel or other small fragments of human remains that might have survived.

# 5.2. Post excavation methodology

# 5.2.1. Data collection from site records

A site database was created in Microsoft Access into which basic site information has been entered. A database of the site photographs was also produced to enable active long-term curation of the photographs and easy searching. The site records were checked and cross-referenced and photographs, plans, finds and samples were cross-referenced to contexts. These records were used to write the site narrative and the field drawings and survey data were used to produce both an outline plan of the site and detailed illustrations.

All paper field records were scanned to provide a backup digital copy. The photographs were organised and precisely cross-referenced to the digital photo record so that the Royal Commission of Ancient and Historical Monuments of Wales can curate them in their active digital storage facility.

A basic quantification of site records is given in appendix I.

# 5.2.2. Finds methodology

The finds were catalogued and grouped by material type; where appropriate finds were cleaned. All finds were packaged in suitable containers and conditions for long-term storage, and if necessary were conserved to ensure they are stable for storage. The finds were assessed by specialists (listed in appendix I) to describe and catalogue the collections. Where recommended by the specialists further work was carried out and illustrations produced. Insignificant items recommended for discard were identified (see 5.2.4. Storage and curation). A basic quantification of finds and samples and a full list of finds is given in appendix I, and the full specialist reports are included in appendix III and summaries are included in the text below.

## 5.2.3. Environmental samples

The sampling strategy for bulk soil samples was related to the perceived character, interpretational importance and chronological significance of the strata under investigation. This ensured that only significant features were sampled. The aim of the sampling strategy was to recover carbonised macroscopic plant remains, small artefacts particularly knapping debris and evidence for metalworking, and possible human remains.

The bulk soil samples have been processed by flotation and wet sieving using a 500 micron mesh for flotation, and 1mm and 10mm sieves for wet sieving. The residues were sorted by hand to recover finds and non-floating ecofacts. All residues were tested for magnetic metalworking debris and this was collected where present. Once sorted the residues were discarded.

The flots were assessed by Rosalind McKenna to establish their potential in relation to charcoal and other plant macrofossils. Further study was recommended for one sample (sample 509, context 5067, from feature [5007]) and this was carried out. The presence of suitable dating material was recorded during the assessment and this information was used in conjunction with the site records and understanding of the site to select appropriate samples for radiocarbon dating. The full report is included as appendix III.7.

The small assemblage of burnt bone, most recovered by wet sieving, was assessed by Dr Nóra Bermingham. None of the material was identifiable to species but more general identifications were given where possible. The full report is included as appendix III.4.

# 5.2.4. Storage and curation

Gwynedd Museum and Gallery, Bangor will hold the finds on completion of the project. Gwynedd County Council as landowners is currently the legal owners of the finds and agreement to this document will be taken as acceptance that the finds can be donated to the museum. The finds will be prepared for deposition according to the Museum and Gallery's established guidelines. All finds are entered in the site database. This information should be easily transferable to the museum's database. A full inventory of the archive will be created to aid accession.

Due to the limited storage space in the museum the building stone blocks (sf504, sf505, sf507) will be discarded once these have been fully studied and recorded. Charred plant remains are not always accepted by museums but these have as much if not more archaeological value as the artefacts. If they are not kept it precludes further work or further dating of material. It is agreed with the Museum that they will accept this important resource. The charred remains are in the form of dried flots in labelled bags to be stored in archive quality boxes. These are to be labelled and accessioned with the finds archive.

Gwynedd Museum and Gallery cannot accept the paper or digital archive, and the latter requires guaranteed long term active storage. Therefore the full paper and digital archive will be deposited with the Royal Commission on the Ancient and Historical Monuments of Wales. RCAHMW holds the national archive of digital site records for Wales and has facilities to actively curate the archive.

The digital archive will comprise an Access database including summary information on all contexts, and drawing, sample, photo and finds registers. Digital site photographs, backup scans of the context sheets, and scans of all site drawings. A digital copy of the site report will be included and a paper copy will also be sent to RCAHMW.

The paper archive will include all significant site records, e.g. context sheets, site registers, site drawings, site diaries, level books. It will include the negatives of print photographs taken but not the prints themselves. The paper element will be placed in archive stable boxes and the Permatrace drawings will be rolled and placed in cotton bags.

# 7. FIELD RESULTS

## 7.1. Introduction

The results of the geophysical surveys (GAT report 773 (Kenney and Hopewell 2009) and report 840 (Jones and Rees 2009)) were used to inform the positions of the phase III evaluation trenches. The results of the trenching is included in appendix IV as the majority of the features investigated were explored more extensively in phases 4 and 5. The results of the evaluation trenching are therefore included in the descriptions and discussions below that are mainly based on the phase IV and V excavations. A list of features with more detailed descriptions is given in appendix V.

The archaeological discoveries were dominated by a cemetery with three mortuary enclosures in plot A and a further two mortuary enclosures in plot B. The latter were associated with only central graves and had no surrounding burials as in plot A. Between and around the cemetery in plot A and in the northern part of the stripped area in plot B were numerous features generally composed of two conjoined pits with evidence of burning. These pits are interpreted as ovens.

Some later features were present across the site. Many were small pits and hollows, but others were ditches that represented field boundaries. Some of these could be attributed to the 19<sup>th</sup> century but some may be earlier. In plot D were remains associated with a small farm and in plot C were the remains of fairly large glasshouses dating to the 19<sup>th</sup> and early 20<sup>th</sup> centuries.

The use of square brackets below indicates cut features; the use of round brackets indicates deposits and fills. PRNs are Primary Record Numbers for Gwynedd Historic Environment Record. Where features have previously been given PRNs these are used but new features and groups of features have been allocated new PRNs as part of this stage of the project.

## 7.2. Cemeteries

(PRNs 24774, 34043-34047; see figures 4 and 5 for general location)

# 7.2.1. Cemetery with mortuary enclosures in plot A (figure 6, plate 2)

The cemetery complex (PRN 34043) (centred on SH 48965 62395) within plot A consisted of 3 mortuary enclosures and 46 graves with 4 other features that might possibly be graves. Two of the mortuary enclosures each contained a single central grave, while the third had 3 graves inside it. The extent of the cemetery was revealed in the excavations on the southern, eastern and north-eastern sides but the western and north-western extent of the cemetery continued into Tŷ Gwyn housing estate. There was no bone within any of the graves, as the acidic ground conditions were not conducive to its preservation. The only artefactual evidence within the graves and the enclosure ditches were a few sherds of eroded Roman pottery and also a few pieces of burnt bone. The graves had a general eastwest orientation but varied in precise orientation.

## Mortuary Enclosures

The southern mortuary enclosure [109] (PRN 24774, figure 7, plate 4) was quite square, measuring 7.0m by 7.0m externally, and defined by a ditch with a maximum width of 1.0m and depth of 0.4m. The enclosure was aligned east-north-east to west-south-west and had an entrance in the east-north-eastern side. In its centre was a grave [111], 2.1m in length, 0.90m wide and 0.40m deep, also orientated east-north-east to west-south-west. The base of the grave contained a number of medium-sized stones, probably indicative of a timber coffin, as discussed below (see section 7.2.3. Discussion), although there were no traces of timber. A sherd of early 2<sup>nd</sup> century samian ware (sf03) was found in the ditch, and another (sf04) came from the fill of the grave. A single fragment of burnt bone was also recovered from the ditch (sf13). Charred barley grains were present in small numbers in the ditch fill (appendix III.7).

Enclosure [152] (PRN 34045, plate 5) was about 25m to the north and between them these two enclosures seemed to define the eastern boundary of the cemetery. Enclosure [152] was on much the same alignment as [109], but was slightly smaller with external dimensions of 6.50m by 6.50m, and also had an entrance in the centre of the east-north-eastern side. This enclosure had been truncated, presumably by ploughing and its ditch only survived to a depth of 0.2m and an average width of 0.70m. Its single central grave [455] measured 2.10m long, 0.85m wide and 0.50m deep.

The third enclosure [108] (PRN 34044, figure 8, plate 3) was smaller than the other two and was rectangular in plan with dimensions of 5.5m by 4.0m. Its orientation was the same as the other enclosures but its shape meant that the long axis was west-north-west and east-south-east. It also had a central entrance in the east-north-eastern side, and was defined by a ditch with a maximum width of 0.40m and depth of 0.38m. This enclosure contained 3 graves, with the largest grave centrally located and smallest grave at the north of the enclosure. The central grave [117] had dimensions of 2.08m in length, 0.75m in width and depth of 0.49m; the southern grave [115] measured 1.90m by 0.70m by 0.34m, and the smaller northerly grave [119] 1.60m by 0.65m by 0.40m. Only the central grave contained stones, but these did not seem to have formed a deliberate packing within the grave. The ditch contained a fairly fresh sherd of  $2^{nd}$  century black-burnished ware (sf42) and some tiny fragments of burnt bone (sf7).

#### **Open Graves**

A total of 41 open graves (not within mortuary enclosures) were excavated, with 4 additional features that might possibly have been graves, although the total extent of the cemetery cannot be established as a significant amount of burials may be outside the investigated area to the west. The graves varied in length between 2.6m and 0.6m and in depth between 0.6m and 0.1m; the variation in depth being largely due to truncation. No bone survived in any of the graves but occasional pot sherds were recovered from the grave fills.

Fifty percent of the graves were orientated east-north-east to west-south-west, 36% were orientated north-east to south-west and only 14% were more accurately east to west. Graves with the same orientation were generally grouped together and the graves closest to the mortuary enclosures tended to reflect their orientation although none of the graves near enclosure [109] were on exactly the same alignment as the enclosure.

Twenty seven of the graves were described as having some medium or large stones in their bases. Although in some the stones were disturbed they were generally against the long sides of grave cuts and in some cases stacked up to 3 stones high against the sides of the cut (plates 7 to 9). Roughly 60%

of the total amount of the excavated graves had very steep edges to their profiles and a very sharply cut base, but some graves were much shallower with concave sides and base. Not all of the shallow graves were grouped together so the differences in depth may not have been entirely due to truncation.

Of the four possible graves [202] and [343] were very small and could have been children's graves, although [202] seems rather casually orientated and [343] seems rather isolated. Both are very shallow but not much more so than three more convincing children's graves in a line ([186], [347], and [352]). Feature [365] was of a similar size and shape to a grave but filled with a grey-brown silt rather different to the brown loamy fills of the graves and lacking any stones. The main reason to doubt its identity as a grave is its isolation to the east of the cemetery. Feature [363] was confused at the east end by the oven [386] and extended under the baulk at the west end but its shape, profile and orientation strongly suggest that this was a genuine grave.

Bulk soil samples were taken from the base of 39 of the 48 graves in plots A and B to allow the recovery of small bone fragments or tooth enamel by wet sieving but no such fragments were found. The 9 graves not sampled were considered to be too shallow and disturbed for this to be worthwhile. Grave [163] did contain some charcoal, all the identifiable pieces of which were oak and some charred oat grains. Grave [186] also contained small numbers of oat grains as well as hazelnut shell fragments (appendix III.7). Considering that no finds would be expected from graves of this date the number of objects found is unexpected. A fragment of brick (sf09) that is possibly but not certainly of Roman date came from grave [230] and another (sf11) came from grave [148]. A 3<sup>rd</sup> to 4<sup>th</sup> century mortarium sherd (sf15) came from grave [146], and [361] contained a fragment of possible Roman pot (sf22). Grave [428] had a small sherd of samian ware (sf24) dating to the late 1<sup>st</sup>/early 2<sup>nd</sup> century. The central grave [455] within enclosure [152] contained a sherd of probable Roman not a fragment of burnt bone (sf38). The fill of grave [465] contained a small fragment of burnt long bone of a sheep/goat sized animal and graves [115] and [176] contained a few more tiny burnt fragments (sf37, sf39). A corroded lump of iron (sf6) was found in grave [117], and the tip of a nail in [281].

# 7.2.2. Mortuary enclosures in plot B (plate 10)

About 55m north-east of the northern end of the cemetery in plot A was the southern-most of two other mortuary enclosures. These lay about 11m apart and on slightly different alignments. They were similar in plan but the northern enclosure was considerably larger than the southern enclosure and unlike the cemetery in plot A there were no associated graves surrounding them. The area round the enclosures was intensively cleaned looking for grave cuts but none were found.

The southern enclosure [5003] (PRN 34046, SH 4902 6244) was rectangular in plan (figures 9 and 10), measured about 5m by 4m externally and was orientated with its long axis east-north-east to west-south-west. Its ditch was about 0.8m wide and 0.36m deep, with an entrance in the east-north-eastern side. Centrally inside the enclosure was a grave [5005] measuring 2.45m by 0.77m and 0.44m deep.

The fill along the sides of the ditch ((5046), (5061), (5062)) was quite stony and might have come from erosion or possibly deliberate backfilling of a central mound into the ditch. Along the middle of the ditch was a finer grey silt (5041), with dark staining within it. This silt was assumed to be just a later fill but it ended in two rounded termini on the western side of the enclosure making it appear that this was a recut of the ditch, with a new western entrance inserted to compliment the eastern one. It was initially thought that the dark staining in (5041) might have resulted from rotted timbers in a foundation trench, but the stains formed roughly horizontal lenses which were not indicative of vertical timbers. Samples from fill (5041) produced significant numbers of fuel ash fragments, as well as a single piece of spheroidal hammerscale (appendix III.3, sf519, sf522, sf523). Although there was an appreciable amount of charcoal it was too poorly preserved to allow for identification. This was possibly due to the wood being burnt at a very high temperature and this, with fuel ash slag, suggests a possible episode of intense burning (McKenna pers. comm.). There was not enough charcoal, and especially large fragments, to hint at a timber structure that subsequently burnt down, and there was no sign of heatalteration of the ditch fill, so it seems that this cannot be taken as evidence of a timber structure in the ditch. It is likely that the charcoal and ash in the ditch was dumped there as the ditch was infilling. The separate lenses probably indicated separate dumping events. Alternatively much later material might have been introduced by animal burrowing; the hammerscale certainly seems to be intrusive. A small iron object (sf518) was probably also intrusive.

The grave had a few stones in the base, mainly near the sides but they were not as carefully placed as in many of the graves in plot A. There was one rounded stone c. 0.2m in diameter in the western end of the grave. Part way up the grave fill was a thin band of dark grey loam (5039) forming a shallow trough in plan, c.1.3m long (plate 11). Although this did not contain organic matter it was thought it may be a stain or cast of the location of a timber, possibly a covering plank that collapsed into the grave as it decayed.

In both the fill of the enclosure and the upper fill of the grave were pieces of sandstone (sf4 and sf5) that appeared to have been dressed and to have originated from a stone building (plate 13). The fill of the enclosure ditch contained three eroded sherds of probable Roman redware (sf502).

The large enclosure [5004] (PRN 34047, SH 4903 6246) was nearly square and measured 7.3m by 7.3m externally, with a ditch about 1.2m wide and 0.44m deep (figures 11 to 15). It was aligned northeast to south-west with an entrance in the north-east side, and had a single central grave [5006]. The grave [5006] had stones nearly laid against the long sides in the base, but otherwise its fill was homogenous (plate 6).

The ditch fill was more complex than the other examples with deposits of stone especially near the corners, including a squared block of building stone (sf7, plate 12), but none of these stones seemed to be packing to support a superstructure. There was the suggestion of a narrow recut [5052] in the upper part of the fill (figure 14), so the ditch around this enclosure may also have been recut. Unfortunately the evaluation trench dug in the earlier stages of the project had disturbed the middle of the southwestern side and confused any evidence for a later entrance in this side. There was also a charcoal-rich deposit containing some pieces of pottery to the north-west of the entrance terminal. All the identifiable charcoal was hazel (appendix III.7). The pottery comprised a sherd of fairly fresh 2<sup>nd</sup> to 4<sup>th</sup> century Black-burnished ware (sf 508), a chip from the base of a Roman redware jar (sf509), an eroded sherd of samian ware dating to c.A.D.160-220 (sf510) and a sherd from the base of a samian cup of about the same date (sf13) (appendix II.1). This deposit also contained fuel ash slag (sf530), small fragments of burnt bone (sf506) and the bent tip of a nail (sf526), which many indicate that this deposit was composed of material from fires and other domestic waste, presumably generated elsewhere. In contrast to the date of the pottery two radiocarbon assays from this deposit produced early medieval dates (see section 9.2.1. Samples from isolated features).

## 7.2.3. Discussion

The mortuary enclosures seem to have been defined by open ditches as no evidence of packing stones to support posts was recorded in the ditches. Whether the material from the ditches was deposited inside the enclosures as a low mound over the graves or outside as a bank was not established by the excavation evidence. The possibility that the ditches around the two northern enclosures were recut after they had silted up would suggest the desire to preserve the memory of the burial.

The enclosures all display certain common features: all five were aligned approximately WSW-ENE ([5004] a little more towards the north) with the entrance in the middle of the east side. All contained central graves aligned on the entrance, four of the enclosures contained a single grave, and one three graves. Three of the enclosures were square, resulting in increased space within the enclosure either side the grave, whilst one was smaller and rectangular, more closely fitting the grave dimensions. The fifth, containing three burials, was also rectangular and designed to encompass the three graves. Because of the lack of stratigraphy the chronological development of the cemetery is not known, and similarly the relationship between the enclosed and unenclosed burials cannot be ascertained with any certainty.

It is assumed that the enclosures were the focus for the wider cemetery in plot A but the sequence of development is unclear. The similarity of enclosures [109] and [152] might be used to argue that these were a pair of burials between and to the west of which the other graves, including enclosure [108] accreted. However the lack of graves closely mirroring the alignment of enclosure [109] could indicate the error of this hypothesis. Enclosure [108] has graves more precisely aligned on it and perhaps positioned to be spreading out from it. Possibly this was the original enclosure on the site and a small number of burials were made near it. The cemetery then expanded, the positioning of graves became less strictly related to [108] and the development culminated in the creation of the two large enclosures.

The graves fall into groups, with graves in each group being equidistant apart and on the same alignment, but there are few neat rows of graves as occur in some early medieval cemeteries. The impression is of graves being added in small numbers, with some awareness of where earlier graves were but perhaps no clear markers making new alignments rather approximate. Evidence for grave markers is rare, although some of the graves at Towyn y Capel, Treaddur Bay seemed to be marked with stone settings (Davidson 2010). Mounding earth over the grave would indicate the location of the grave for a few years unlit the earth settled.

The variation in the length of graves is probably largely related to the height of the individual buried and therefore approximately indicative of age. There were three small graves ([186], [347] and [352]) set in a line in the south-western part of the cemetery. Although these were quite poorly preserved their position and orientation suggests that they were genuine graves and as they were all 1m in length or shorter they appear to have been children's graves. Two of the possible graves ([202] and [343]) are of a similar size and shape but their position and orientation make them less likely to have been genuine graves. Whether some of the graves measuring about 1.5m in length can be considered to be graves of women (e.g. [268] and [447]) is much more uncertain; they could be the graves of boys not yet fully grown.

The stones along the sides of some of the graves probably indicate that these graves had timber linings. Stones of the same sort were found in graves at  $T\hat{y}$  Mawr, Holyhead (Kenney and Longley 2012) and some of these had stains indicating timber planks. It would appear that these were not coffins but unjointed planks supported by the stones packed down between the planks and the grave cuts. None of the graves had stone slab linings forming long cists but in effect the planks would have created a similarly lined grave.

There is a surprisingly large assemblage of finds from the cemetery considering that few or no objects would be deliberately included in the graves. The majority of the pottery suggests a late first or second century date. Most of the sherds are eroded but the black-burnished ware sherds from enclosures [5004] and [108] appear quite fresh and uneroded. The finds from the grave fills are most likely to have come from the surrounding soil and to have been mixed into the fill by accident. The date of the sherds could therefore be much earlier than the digging of the graves. The enclosure ditches presumably filled in more gradually and again the sherds could have eroded from the surrounding topsoil during infilling, but the fresher sherds suggest they had not been in the soil very long, especially if the area had been ploughed.

The charcoal-rich deposit in the ditch of mortuary enclosure [5004] is of particular importance because this material must have been dumped while the ditch was open. The pot sherds found in this dated to the second century AD while the radiocarbon dates were early medieval. The fuel ash slag and burnt bone fragments suggest this material came from a rubbish deposit. It is likely that some of this deposit, particularly the charcoal was produced not long before the material was dumped in the ditch, but the pottery indicates the inclusion of much older material. The building stone found in mortuary enclosures [5003] and [5004] must also have been introduced from elsewhere. Worked stone is more likely to be from demolished Roman structures than from buildings contemporary with the enclosures, but its function at these sites is far from clear. Again it seems to have been dumped rather than to have been reused in a structure.

The low numbers of charred grains and weed seeds from the graves and enclosure [109] may indicate the use of material cut from cultivated ground as fuel, but it is unclear how this might have found its way into the graves. It might be more likely that the fields were cleared of stubble by burning and some charred remains were introduced into the grave fills.

## 7.3. Ovens and other burnt features

See figures 4 and 5 for locations

### 7.3.1. Description

Scattered across the site were 26 features in which burning had taken place or which had burnt material deposited in them. Eighteen of these features had a two-chambered construction and are best interpreted as a type of oven. A few of these features were interspersed amongst the graves within the cemetery however most were located around the fringes to the east, south-east and south-west. One feature had an oval chamber with a flue, and appeared to be a corn drier. The remaining features were simple pits, a fire site and a deposit of charcoal in a shallow hollow.

# Two chambered ovens

(These features have been recorded on the Gwynedd HER as PRNs 34048-34066. See figures 16 to 23) The most common oven type had a figure-of-8 shape in plan (plates 14 to 17). These had two chambers, one of which had evidence of *in situ* burning and must have held a fire, while the other, although it might contain charcoal, generally lacked traces of burning. Seven of these features had circular or sub-circular chambers of roughly the same size ([184], [218], [237], [283], [382], [491] and [508]). There were also 8 features with an elongated figure-of-8 shape ([166], [260], [278], [473], [500], [3004] and [5009]), with a circular fire chamber but the other chamber was extended to an oval or sub-oval shape in plan. Two features ([105] and [249]) had more irregular shapes in plan, but the two chambers could still be distinguished.

All these features ranged in length from 2.98m to 1.40m, in breadth from 2.0m to 0.65m and in depth from 0.58m to 0.12m, however some were undoubtedly truncated, features [508], [382] and [491] heavily so. During excavation some of these features were given two cut numbers to differentiate between the two chambers, however the evidence suggests that both chambers functioned, and were probably constructed, together.

Most of the fire chambers had orange-red heat-affected soils or clay on their bases and sometimes up the sides. In some cases this may have been a clay lining (e.g. [105], [237], and [283] with features [184], [218], [278] and [294]), but in none was there clear evidence of deliberate lining. In most of the fire chambers the effect of heat on the soil at their bases was indicated by its bright red orange colour. The sections of the features [105], [184], [260], [283], [294], [500] and [5009] showed a prominent ridge/hump of heat-affected natural or clay on the interface between the two chambers. In features [294] and [500] these ridges were part of the original construction of the ovens. Feature [260] had a slight ridge similarly formed when the oven was dug but also had a red burnt clay hump a top of it. The ridges or mounds in features [105], [184], [283] and [5009] were formed of burnt clay.

There were several features which had either stone-linings or evidence that stones were used structurally ([166], [237], [249], [299], [473] and [500]). Feature [237] had a flat cobbled base at the west end where the stones were embedded into orange-red heat-affected clay lining; whereas features [166], [249], [473] and [500] all had large rounded stones within them but with no definite structure. Sometimes these stones occurred just within the fire chamber, sometimes just in the second chamber, and sometimes within both. Feature [299] may have had a stone-lined second chamber, although there were also large sub-rounded stones throughout the two main fills ((302) and (325)). It is possible that the stones may have been structural, but they may just have been present to help retain the heat. The fire-cracked stone in some features (e.g. [294] and [299]) shows that the stone was in direct contact with the heat in the chamber.

Ten of this group of features ([105], [184], [249], [278], [294], [299], [473], [500], [3004] and [5009]) had a bowl-like fire chamber which undercut the natural, some by up to 0.20m. The bases of the features were not always regular and level, some of them had a step from one chamber to another. Features [237], [249], [283], [500], and [3004] all had a step down from the fire chamber to the second chamber, while features [166], [294], [473] and [471] had a step down from the second chamber to the fire chamber. In feature [5009] the base sloped rather than having a step.

There was a general similarity between the fills of these features. Within most of the ovens there was a lower charcoal-rich deposit with fragments or lenses of orange red or yellow pink burnt clay. Features [105], [184], [473], [491] and [500] had charcoal-rich deposits at the base of the second chamber; possibly the ash raked out from the fire chamber. Feature [508] had a charcoal-rich layer within the base of the fire chamber, which could be the *in situ* remains of the last firing.

The upper fill of the majority of the features was a firm to loose mid grey brown/dark brown/mid brown, some with yellow mottling or clay patches, silty clay/clayey silt with a range of stone sizes from small to large rounded to sub-angular and some with rare charcoal flecks.

One feature in particular showed a clear sequence of disuse (figures 24 and 25, plates 18 to 20). Feature [5009] had an elongated figure-of-8 shape measuring 2.78m in length, 1.40m in breadth and 0.40 in depth. The initial fill was a pale yellow-brown clayey silt (5035) on the base of the second chamber, followed by a loose dark grey brown sandy silt with charcoal (5023), which was the main fill of the

second chamber and sloped down towards the fire chamber. Above that was a mid-brown fine silt (5024), then a small chunk of deposit (5068) forming a ridge/hump of bright orange heat-affected material, charcoal and stones dividing the two chambers. The main fill of the fire chamber was very firm pale yellow brown silt clay (5025) with occasional rounded stones. The final deposit was a firm but fragile layer (5034) of heat-affected soil which diffused from bright orange (underside) to yellowish (outer side). Contexts (5034) and (5068) were probably both deposits originally forming an overhanging roof to the oven chamber. When in situ it was burnt red on its underside causing the red band seen in plan and section. After abandonment it seems (5068) broke off from the main structure and (5034) slumped into the pit as a coherent chunk, slipping down and rotating slightly. Deliberate backfilling (5025) occurred between the collapse of (5068) and the slumping of (5034). This strongly suggests that the oven was roofed and the roof material was soil. The oven might have been dug into and under the soil, but this would have been difficult as the resulting roof would have been very fragile. It is more likely that the roof was formed by sods, cut with both soil and grass, placed on a support of branches, as has been suggested for features at Forest Road, Kintore, Aberdeenshire (Cook and Dunbar 2008, 134). The burnt collapsed chunks of soil in [5009] may therefore have been remains of turves. Other ovens showed similar slumping of heat-affected material around their edges but [5009] had the best preserved evidence of a collapsed roof.

There were very few small finds within the fills of these features. A corroded nail (sf16) was found within the fill of oven [249] and a concreted object (sf501) within [5009]. Tiny fragments of burnt bone (sf40) came from oven [184]. There was a flint flake and a chip (sf32) found in oven [237] and single flint (sf28) in oven [260]. An abraded sherd of red pot (sf08), probably Roman, came from oven [218]. All the finds could either have been residual or intrusive in the ovens and could not be used to date them. A series of radiocarbon dates was therefore obtained to date the ovens and these are discussed below (section 9.2.2. Bayesian modelling of radiocarbon dates from ovens).

Burnt clay was recovered from three ovens ([218] sf34, [279] sf35, and [3007] sf43) as representative samples of the heat-affected lining of these ovens. This material appears to be the result of the heating of the natural substrate into which the ovens were dug. Subsequent analysis of the clays shows the temperature in the ovens was never very high (appendix III.3). The wet sieving residue from oven [5009] produced a small number of fuel ash fragments, a fragment of clinker and two pieces of coal (sf516). The clinker and coal are very small pieces and almost certainly intrusive rather than indicating use of coal as a fuel in this feature.

The fuel used in the ovens seems to have been mainly oak, with some hazel, ash and willow/poplar. Elm was also occasionally found (appendix III.7). The samples from the ovens produced very small assemblages of plant macrofossils both in terms of abundance and diversity. Seven features contained indeterminate cereal grains, two contained wheat grains, three contained barley grains and two contained oat grains. These were all however in very small numbers. These quantities do not suggest corn drying activity; accidental charring of grain would be expected at a much higher level in this case. It is more likely that the grain was introduced with fuel, especially straw, to light the fire.

#### Other burnt features

Feature [137] (PRN 34071, figure 6) was of a different type to the rest in this group. It measured c.7m in length with a maximum width of 1.5m and maximum depth of 0.28m. The narrower end, likely to be the flue, curved toward the north-west and contained a large amount of burning. The southerly end was sub-circular with a flat base and with no signs of burning. There was a primary fill of dark red silty sand with charcoal and burnt clay and the main fills were stony. After excavation two graves ([432] and [365]) were found sealed below this feature, and a third grave [458] was partly obscured by the fill of feature [137]. The two soil samples from this feature produced relatively small assemblages of plant macrofossils. The most abundant remains in the samples were oat grains, followed by indeterminate cereal grains. Barley and hazel nut shell fragments were also recorded in both samples. Overall, the low numbers of grains and weed seeds in the samples indicates the accidental burning of cleaned grain and its subsequent disposal (appendix III.7).

Other features had evidence of either *in situ* burning or considerable charcoal deposits but they appeared to be quite different to the ovens and possibly of a very different date. Feature [388] was sub-rectangular, measuring 1.35m in length, 0.70m in breadth and 0.50m in depth, and had a mixed fill with dumps and lenses of charcoal interleaved with brown sandy silts and burnt clay (figure 26). A thin

lens of yellowish clay on the base may have been part of a clay lining, but there was no *in situ* burning of the pit cut.

Within the cemetery in plot A was a shallow circular pit [340], measuring 0.8m by 0.75m and 0.14m deep. It had a charcoal-rich layer in the base but no sign of *in situ* heating. Feature [133], measuring 0.57m in diameter and 0.08m deep, appeared to be a deposit of charcoal in a shallow hollow, but it might have been the truncated base of a pit.

Feature [247] (PRN 34053) was a shallow hollow only 0.09m deep, measuring 0.85m in length and 0.85m in breadth. It had a single fill of compacted red silt clay with orange red burnt clay deposits throughout. This layer appeared more likely to be the heat-altered surface of the natural sub-soil than deliberately deposited material. This feature might therefore be considered a fire site or hearth rather than a pit. A fragment of late 2<sup>nd</sup> century samian ware (sf10) was found adjacent to this feature. Next to the fire site was a small pit or hollow [254], 0.42m in diameter and 0.12m deep. This contained some fragments of charcoal in its fill and may have been related to [247].

Pit [511] (PRN 34064, figure 27) was again sub-circular measuring 1.3m in length, 0.90m in breadth and 0.20m in depth, with a dense charcoal layer at its base. The sides and base of the cut were burnt orange-red, indicating *in situ* burning. A layer of flattish stones overlaid the charcoal-rich deposit followed by grey-brown clayey silt. Feature [386] (PRN 34069) was heavily truncated. It was sub-oval in plan and measured 1.5m in length, 0.44m in breadth and 0.40m in depth (figure 28). There were distinct bands of dense charcoal around the eastern edge and on the base, but no sign of *in situ* burning. The main fills were mixed red-brown and yellowish clays with occasional stones and charcoal. This feature was confused by being cut into the top of an irregular hollow [372], but its fills were quite distinct from the fills of the hollow. Grave [369] clearly cut the fill of the hollow [372] and seemed to just clip the edge of [386]. The degree of overlap was not large but it seems likely that the grave post-dated the pit. Feature [393] was probably also a grave. The relationship between this and the pit was not investigated in detail but again it is likely that [393] cut [386].

Feature [318] (PRN 34067, figure 29) was a rather irregular shallow pit measuring 1.1m by 0.9m and 0.16m deep. It had a layer of stones in the base, many of which were heat-cracked with a deposit of charcoal around them. The main fill was a brown silty sand which contained a collection of flint debitage (sf33) possibly of Neolithic date. This pit also contained a small fragment of pottery (sf27), considered by Peter Webster to be possibly Roman. However the sherd had been burnt, so altering its colour and making identification difficult. The sherd also contains voids where inclusions have leached out, which is a common characteristic of Early Neolithic pottery, so it might date from the Neolithic period, though its vesicular nature would suggest a date early in the period rather than late, which conflicts with the late Neolithic date obtained from hazel nut shell and hazel charcoal within the feature (see section 9.2.1. Samples from isolated features).

Pit [386] contained purely oak charcoal while pit [318] was dominated by hazel charcoal and pit [340] was dominated by ash. The charcoal in the base of hollow [133] was oak (appendix III.7). Pit [318] also produced abundant hazelnut shell fragments, possibly introduced on branches for fuel.

## 7.3.2. Interpretation

## Ovens

The majority of features referred to above as ovens had one circular chamber in which a fire had been lit. In the best preserved cases there is an indication of the collapse of an earthen roof, and it is possible that the chamber was largely or entirely under the earth. Stone in some of the features may indicate a more solid superstructure supported by stone. These enclosed chambers seem to have been designed to retain heat and closely resemble ovens for cooking. The degree of burning on the sides of these chambers indicates a fairly low temperature, certainly nothing approaching the temperature needed for firing pottery or other uses of kilns or furnaces.

The second chamber often contained more charcoal than the fire chamber and this was often heaped up as if raked out of the fire chamber (plates 21 and 22). It is therefore suggested that the second chamber was open to the air and allowed access to the fire chamber and the remains of the fire were raked into this chamber. In several cases the remains of two or more fires seem to have built up suggesting that the fire chamber could still be used even though the second chamber was partially filled with charcoal and ash.

Some of the ovens had a prominent ridge or hump of heat-affected soil or clay on the interface between the furnace and the raking-out pit. In most examples the ridge was an original part of the structure, and may have been to control the wind coming into the oven and helping to contain the heat of the fire. The construction of the fire chamber and raking-out pit on different levels in some ovens may also have been to control ventilation.

The features might have worked as corn driers but in this case the fire chamber would not need to be roofed. The fairly small number of charred cereal grains from these features also suggests ovens rather than corn driers. The raking out of the ash before reusing the fire chamber would seem to be unnecessary for a corn drier. In this case the second chamber would be the one over which the grain was suspended to dry and little charcoal would be expected in this case. Generally the specific features are suggestive of use as an oven presumably for cooking food, perhaps bread but possibly not exclusively so. The indications are that these structures were used perhaps a couple of times but were not designed for long term use. The fragility of the roofs or overhanging earth sides makes it unlikely that they would have withstood more than a couple of firings. These were not the well-built and carefully designed clay ovens used for making bread in many modern cultures, but they seem to be an easily constructed temporary measure.

None of the well-defined ovens had a direct relationship with the graves. The majority lay beyond the limits of the cemeteries but four were within the area of the cemetery in plot A, so there is no indication that the cemetery was actively being avoided. The two ovens in the northern part of plot B may be outliers of a second group of ovens most of which lie outside the excavated area.

There were some possible pairings of ovens (figures 19 and 20). Features [260] and [278] seem to form a pair and [299] and [382] extend the same alignment. Features [166] and [237] were also close together, although not aligned. However most of the ovens seem to be separated from each other by at least 12m. It is possible that this is an important clue as to how they were used and why there were so many within this area.

#### Corn drier and other burnt features

Feature [137], with its long flue, appears quite different to either the ovens or the other pits and was probably used for a different function. The long flue attached to a rounded chamber suggests that it was a corn drier. The fire would have been at the north-west end of the flue, which is why this was burnt, and the length of the flue would prevent sparks reaching the grain suspended over the pit at the southern end. Many corn driers were stone-lined and the stones within this feature may have been the disturbed remains of a lining.

The amount of charred grain recovered from the feature was fairly small but the scarcity of weed seeds suggested the burning of cleaned grain as may have occurred if there was an accident during the drying of the grain. More charred grain might be expected from a corn drier but the quantity would depend on the number and severity of accidental burnings, possibly related to the duration of use of the feature.

This is the only feature to have a clear stratigraphic relationship with any of the graves as it cut across at least two and probably three of them. A medieval date was obtained from this feature (see section 9.2.1. Samples from isolated features), and it is likely that all memory of the existence of the cemetery was lost before the corn drier was constructed.

The other pits with some evidence of burning appeared less like ovens. With the exception of pit [511], they generally had few traces of *in situ* burning even when they contained fairly dense concentrations of charcoal. They may have been used to dispose of charcoal from the ovens, but, with the exception of pit [511] which was between ovens [500] and [508], there was no spatial relationship between these pits and the ovens. Most of these features could have been part of the same activity that produced the ovens but pit [318] was clearly much earlier, dating to the late Neolithic period. The burnt stones in this pit may indicate its use as a pit oven, but it seems to have been rather broad and shallow for that purpose. The fire site [247] with its adjacent small pit could be of any date.

# 7.4. Other potentially early features

Figure 4

# 7.4.1. Pits

Within the area of the cemetery in plot A was a pit [190] (PRN 34068) measuring 1.6m by 1.0m and 0.25m deep (see figures 6 and 30). It was approximately sub-rectangular in plan with fairly steep sides and a flat base. Its long axis was aligned north-south, which along with its proportions ruled it out from being a grave. Above a layer of primary silt with flecks of charcoal was a deposit of large stones up to 0.55m in length, which were not obviously heat-affected. This contained a sherd of Black Burnished ware (sf17) that could date from any time from the late 1<sup>st</sup> to the 4<sup>th</sup> century, and a fragment of burnt bone (sf36). The bone was a 10mm long fragment of a long bone of a medium to large mammal, but almost certainly not human. The soil samples contained a significant charred cereal assemblage dominated by indeterminate cereal grains, but with significant numbers of oats and small numbers of barley and wheat grains, together with several weed seeds. This may indicate the dumping of spoilt grain or domestic waste into the pit (appendix III.7). Radiocarbon dates (see section 9.2.1. Samples from isolated features) on charred cereal grains from this feature demonstrated that despite the pottery the feature was medieval in date.

A small steep-sided feature [205], 0.42m in diameter and 0.22m deep, was also found within the cemetery. The main fill had patches of redeposited clay and the upper fill contained an assemblage of charred cereal grain including wheat, barley and oats, and charred weed seeds. The similarity to the assemblage from pit [190] may indicate that they were of similar dates.

Features [233] and [131] were small sub-oval pits with simple brown sandy fills. They would be of no interest except for their proximity to ovens ([218] in the case of [233] and [299] and [260] for [131]), but the lack of charcoal in their fills suggests that they were not associated with the ovens.

In plot B, close to the small mortuary enclosure, were two pits. Pit [5011] was a neat oval, measuring 1.3m by 0.9m and 0.23m deep. Its fill was a homogenous brown silt. Pit [5014] was more subrectangular in plan, although rather irregular. It measured 1.6m by 0.8m and was 0.38m deep. There was some erosion around the sides but the main fill was a brown silt. Both features were aligned roughly west-north-west to east-south-east, i.e. on quite a different alignment to the enclosure and although their sides were quite steep they seemed to be too broad and irregular to be graves.

## 7.4.2. Possible early field boundaries

#### Figures 4, 5 and 6

Running almost exactly north-south across much of the length of plot A was a straight, shallow ditch [154/345], up to 0.8m wide and 0.25m deep. There was a gap in the middle of the ditch where it would have crossed a group of graves, but this gap seems to have been due to truncation and was not original. At its southern end the ditch curved to the south-east and had a fairly neat, rounded terminus. At its northern end the ditch cut through mortuary enclosure [152], showing that it dated to later than the cemetery. However ditch [154/345] was cut by the medieval corn-drier [137], so the ditch cannot have been a late feature. The ditch produced a small number of indeterminate cereal grains, but it is likely that these were mixed in from stubble burning or other activity that introduced similar grains to the graves.

The relationship of ditch [154] to another ditch [158] on an east-north-east to west-south-west alignment was unclear, but [154] may have cut [158]. Ditch [158] was up to 0.9m wide and 0.5m deep. Its north-eastern end curved to the south-east at its terminus, and the ditch had been preceded by a much longer, shallow ditch [156], which continued the alignment across the northern end of plot A. Ditch [156] was about 0.7m wide and 0.18m deep. Running parallel to these ditches on the northern side was an area of compact stones and gravel (312) which may have been a contemporary trackway. Again the relationship of ditch [154] to this stony deposit was difficult to determine but [154] may also have cut (312). Ditch [158] was cut along almost the same alignment as a row of graves, clearly cutting the graves. The ditches and possible trackway were exactly parallel to the mortuary enclosure [152]. There was no dating material from these ditches and none of the available maps indicate a boundary or a trackway here, so it is possible that these ditches were early, but their date must remain uncertain.

Further south a sinuous ditch [270] may also be early. This had a rounded profile and was not more than 0.3m deep. It ran west-north-west to east-south-east then curved to the north-east and finally curving round to run nearly due east. Its fill produced a sherd of first century AD samian ware (sf05) and two fragments of redware (sf19, sf20), possibly also Roman. This is not necessarily to date the ditch to the Roman period as the sherds were probably in the ploughsoil, but the ditch does seem to

have filled with eroded ploughsoil at a fairly early period. This ditch had been identified in the geophysical survey and has been recorded as PRN 29308.

Another ditch to produce a Roman sherd was a shallow ditch [022] underlying the 19<sup>th</sup> century features at the north end of plot C. This ran north-west to south-east, nearly but not quite parallel to the slate fence (008). The ditch was 1.2 to 1.3m wide and survived to a maximum of 0.3m deep. The upper fills contained late post-medieval sherds but in the base of the ditch was found a single rim sherd of Roman black burnished ware pottery (SF01), dating to  $3^{rd}-4^{th}$  century AD.

Possibly the most intriguing of these potentially early ditches was a slight gully [5007] in plot B (PRN 34070). This curved gently and survived for a length of 15m. It was 0.5m wide and up to 0.22m deep. The gully ran from the south-eastern side of mortuary enclosure [5004], and seemed to be cutting through the in-filled ditch (figures 11 and 15). This gully may have continued on the northern side of the mortuary enclosure as [5008], which was a similar shallow curving gully, although more truncated. Gully [5007] was filled with a dark grey silt with lenses and patches of charcoal. When sampled this charcoal proved to be composed of hazel and willow or poplar, suggesting fuel woods. It also contained a surprising large charred cereal grain assemblage composed mainly of oats (over 4000 grains) with a small amount of wheat and barley, some weed seeds, particularly grass seeds, and fragments of hazelnut shells. It also contained a single charred garden pea. Most of these remains probably relate to a single event, possibly the disposal of a spoilt grain store, an accident whilst drying the grains or the remnants of a meal (appendix III.7). In addition there was a quantity of fuel ash slag (sf531, sf532). This includes probable clinker and 3 tiny pieces of coal, but it is likely that most of the fuel ash slag was from the burning event that charred the cereal grains and that the coal and clinker were intrusive. The pea and an oat grain were radiocarbon dated (see section 9.2.1. Samples from isolated features). The pea dated to the early post-medieval period and shows that there was intrusive material in the fill of this feature, but the oat grain dated to about 11<sup>th</sup> century AD and it is assumed that the rest of the oat assemblage had a similar date and that this feature was medieval.

# 7.5. Farms and glasshouses: post-medieval and modern features

## Figures 4, 5 and 31

Many of the later features can be identified on the 19<sup>th</sup> and early 20<sup>th</sup> century maps. Plot D lay on the edge of a small farmyard and within plot C were some substantial glasshouses. Some of the ditches running across the site can also be identified on the maps as field boundaries. Not all the features found could be securely identified with features on the map but many seemed to be related to this activity.

## 7.5.1. Description

# Glasshouses (PRN 34072, SH 4893 6219, figure 32)

Roughly central to plot C was a low brick wall (041). This only survived to 2 or 3 courses in height but was 14m long and probably formed the north wall of a rectangular brick building. Six metres east of the end of this building was a small brick structure (035) with a concrete floor (plate 23). It measured 4.0m by 2.3m. It was entered in the southern side where there were 3 steps curving down into the building, which was set about 1m into the ground. In the north-eastern corner was a substantial brick structure, which probably supported a boiler or heater. It is probable that structure (041) was the base of a glasshouse and (035) was the boiler house to heat it. The two structures were linked by a line of large slate slabs (039), possibly forming a path. Also between these buildings was a third building (040), again built of brick and measuring 3.6m by 3.3m (plate 24). This had 2 brick divisions inside and two shallow postholes near the southern wall. These features must have supported internal fixtures and it is probable that this building was a potting shed.

To the south of (035) and joined to it by a shallow gully [038] was another structure, but nothing of this survived other than its slate slab floor (036). The gully [038] was filled with stones, clayey sand and gravel (050, 051, 052), which gave no clues to its function but it was sealed by coal-rich deposit (053). This suggests that coal was stored in this area for the boiler, but it was not necessarily stored on the floor (036) as this overlay a make-up deposit (054), which sealed the coal-rich layer (053).

The glasshouse was surrounded by narrow stone-filled field drains (042) to drain the area. A broad trench (043) containing a cast iron pipe ran south-east from (035) the boiler house; possibly providing water for the boiler.

## Farmyard (PRN 34074, SH 4892 6227)

A small farmyard was identified in the assessment of the site within plot D (figure 31). The remains of some brick buildings were visible then and these were recorded as feature 6 (PRN 29304) (GAT report 773 (Kenney and Hopewell 2009)). Further brick structures were exposed within the stripped area and were surveyed during the excavation phase, and the stone cottage was recorded during a watching brief on a haul road along the western side of plot C. Other related features were also found.

The upstanding remains of a stone building (PRN 31083, plate 25) were located at SH 48927 62256 and measured 4.7m by about 5m, although the eastern end of the structure was not fully cleared. The walls stood to a maximum of 1.9m high. The large foundation stones were unmortared but the rest of the wall was built of mortared fieldstone or irregular shapes, with only very rough coursing. Then debris in and around the structure showed that it had a slate roof and both slate and quarry tile flooring. The building appears on the 1888 First Edition OS map (figure 36), where it is shown as being about 7m long. The eastern wall must have been more completely demolished than the rest and was not visible when inspected.

In the southern end of plot A, on the boundary with plot D, were the remains of two small brick structures (516 and 517). Structure (516) measured 3.0m by 2.68m externally and was constructed with a brick wall 0.28m wide. Structure (517) survived as a square platform, 1.64m by 1.60m, with a brick wall running from its western side. A group of 6 postholes (434, 436, 438, 440, 442 and 444) about 4m to the east were probably also related. These had packing stones to hold posts but did not form a very clear pattern.

These structures seemed to lie north of the buildings shown on the 1918 map (figure 37) but were presumably related in some way to the farmstead. The brick structures were similar in construction and probably of the same date as the brick structures (PRN 29304) recorded during the assessment (GAT report 773 (Kenney and Hopewell 2009)). Those structures formed part of the southern range of the farmyard, whereas the excavated examples lay just outside the farmyard.

The western boundary of plot C, represented by ditch [421], seems at one time to have continued north and then turned a right angle to the east. This had an accompanying ditch [374] to the north. Ditch [374] contained late post medieval pottery providing a confirmation that these were late features.

At the northern end of plot C were the remains of a small brick structure (009) (PRN 34073, figure 33, plate 26), 1.6m square, with brick walls and a slate floor (010). What appeared to be a path formed by slate slabs (019) and cobbles (013) held in place by slate edging stones (014) ran to the north-east side of the structure. From the western corner of structure (009) ran a slate fence (008) formed by slates set on end in a trench. Two similar lengths of slate fence (518) formed a right angled corner further north in plot D. A clay tobacco pipe decorated with the Prince of Wales feathers (SF02) was found beneath the slate floor in structure (009).

A slate capped drain [045] ran just north of structure (009) but did not seem to be related to it. This drain was overlain by the slate slabs (019) and cut by a later drain with a ceramic pipe (017) running from a concrete manhole (021) (plate 27).

To the south of this area the geophysical survey (figure 2) had indicated some linear features but none were identified during the stripping of the area. The geophysical anomalies could not be easily identified on the maps, although the north-south feature may be a field boundary indicated on the 1842 tithe map. However these features are likely to have been related to the farming of this area or to the glasshouses as they were aligned with other features in this complex.

## Field Boundaries

The remains of a slate fence (515) marked the line of a boundary shown on the 19<sup>th</sup> century maps and visible on the geophysical survey (PRN 29306) running across the middle of plot A. Completely parallel to this to the south-west was a ditch [191/210], which may have indicated a sub-division of the field.

The distinctive bend in the northern boundary of plot A can be seen on the maps dating back to 1842, so this must have been the original boundary to this field. However a shallow ditch [489] seems to have defined a straighter boundary. There was a gap in this ditch about 4.7m wide, perhaps an entrance. In

plan it seemed that the ditch south-east of the gap ran into another ditch [156] running to the southwest. It has been argued above that ditch [156] was early, possibly medieval (see section 7.4.2. Possible early field boundaries), but the relationship between these ditches was not explored in detail and it is possible that they were not contemporary.

In the northern corner of plot B was the corner of a ditched enclosure [5010]. The ditch ran northnorth-west to south-south-east for 5.5m then turned to run to the west-north-west for 2.5m into the baulk. The ditch was up to 1.0m wide and no more than 0.15m deep, with quite gently sloping sides as if severely truncated. The brown silt fill contained Buckley ware, blue and white decorated pottery, roof slates and modern glass. This feature is not indicated on the County Series maps, although it does align with a field access track from the farm of Maes-y-Barker, and was probably related to a small agricultural enclosure or building, too temporary to have been included on the maps.

# Pits and postholes

There were various pits and a small number of postholes scattered across the site. Some of these could be dated to the post-medieval activity by the artefacts they contained or the character of their fills. About 3.5m west of the structure (009) were two postholes ([046] and [048]), measuring 0.4m and 0.55m in diameter respectively and up to 0.25m deep. Feature [048] contained late blue and white ware sherds and clay pipe fragments.

A group of four pits were found near the eastern limit of the stripping in plot C. This group consisted of two small, sub-circular pits ([027] and [029]) and two elongated pits ([031] and [033]) forming a square pattern measuring 2.7m by 2.05m externally overall and aligned north-west to south-east. The smaller pits measured 0.52m by 0.48m [027] and 0.73m by 0.42m [029], where no more than 0.1m deep and were filled by grey brown sandy silt with some stone. Pit [031] measured 1.39m by 0.70m and [033] measured 1.30m by 0.45m. The latter was 0.16m deep but the former was up to 0.3m deep. The fills of these were similar to the smaller pits but both contained pieces of sawn timber in their bases. The condition of the timber demonstrated that these were recent features probably associated with the other activity in this plot.

In the entrance to the plot was found a sub-circular pit [004] measuring 1.2m by 1.0m and 0.5m deep. This was partially filled with rounded stones up to 0.35m in length and had a charcoal-rich deposit in the top that contained a few-heat cracked stones. There was nothing to date this feature but as most of the activity in this plot was late it is assumed that this too was a late pit.

All the above features are fairly close to obvious 19<sup>th</sup> century activity but several isolated pits were scattered through plots A and B. Pits [266], [424] and [479] were full of stones and formed a type of feature quite often found; presumably dug to place field stones below the level of the plough. Several small pits ([193], [195, [315], and [316]) had some 19<sup>th</sup> century pottery or glass within their fills. Pit [390] in the same area and of a similar size is also assumed to be late although no finds were recovered. The largest of these late pits was [408]. This measured 1.5m by 1.0m and was 0.55m deep. It was filled by a complex sequence of deposits most of which contained late 19<sup>th</sup> or early 20<sup>th</sup> century material such as Buckley ware, blue and white decorated pottery, clay pipe stems and glass. Pit [5013] in plot B was not fully excavated as a strong smell indicated the presence of fairly recently buried animal remains, so excavation was halted on health and safety grounds.

Several features investigated were almost certainly of natural origin. Some were possible animal burrows (e.g. [5019]) or tree root hollows (e.g. [355]). Others may have been the result of a large stone having been removed by ploughing (e.g. [422]). A group of burnt features (group 472) appeared to be a collection of hollows and patches of charcoal of a sort typically resulting from tree roots being burnt during clearance activities. The position of these features between two large natural boulders suggested that the area might have been avoided by the plough because of the boulders allowing a tree to grow there. Soil samples from these features produced only oak, which might suggest an oak tree that was felled and its stump and roots burnt.

## 7.5.2. Interpretation

The boundaries of plot C are identifiable on the 1777 Vaynol Estate map and 1842 tithe map (figures 34 and 35) but no features are shown within the plot on either map. The 1888 Ordnance Survey map shows that by then the cemetery for Llanbeblig Church had been extended to the east and now defined the western boundary of Plot C (figure 36). Along this western boundary and within Plot C was a

trackway leading to a farm at the northern end of the field. This trackway is still represented by a gate leading off Llanbeblig road, but no deposits identifiable as a track surface were identified in the excavations. In 1888 (figure 36) three small buildings are shown against the southern boundary of Plot D, the south-eastern most of which was the stone building (PRN 31083), which was probably a cottage. There was also a well. By 1918 (figure 37) these three buildings had been converted into an enclosed rectangular farmyard, with additional buildings and a small triangular paddock in the southern corner of the study area. The farm was still in existence in 1950, but had been demolished by 1966 (as seen on the aerial photographs). The brick structures found in the excavations ((516) and (517)) were related to this farmyard. They are not shown on the maps but can be seen on 1948 aerial photographs when the other buildings, including cottage PRN 31083, were also still standing.

The slate fence (008) found in the excavations probably formed the south-western boundary to a narrow strip of land, probably an orchard or garden, running south-east from the farmyard. In 1888 two small structures are shown adjacent to each other at the south-eastern end of this boundary. The structure immediately next to the boundary is probably the brick building (009). The building next to it suggests that the supposed path (013/014) was actually the remains of another slight structure. There is no evidence from the map of the function of the structures. It was speculated during the excavations that (009) was an earthen toilet, although as it lay about 38m away from the farmhouse this seems an excessive distance for a toilet. As there was no deep pit below the structure for the waste it seems unlikely to have been an earthen toilet and it seems very early for this to have been a flushing toilet, despite the proximity of the drain. By 1918, when the farm had expanded these structures had been demolished (figure 10).

In 1888 a track ran from Llanbeblig Road into the middle of plot C. To the east of the end of this track a building is shown. This was largely outside the stripped area and the map does not indicate its function, but it is also shown on the 1918 map where it is clearly marked as a glasshouse (figure 10). By this time there were two other glasshouses and related structures. Wall (041) formed the north wall of one glasshouse, which seems to have been closely associated with building (040), probably a potting shed. Building (035) is shown on the map to be built against the earlier glasshouse and was probably the boiler house for this, although it is equally likely that it fed all the glasshouses. The map shows that the flagged floor (036) was within a building, and its function as a coal shed seems likely, if not proven.

The Gallt-y-Sil Isolation Hospital for infectious diseases was built in 1904 opposite Tyddyn Pandy (The National Archives Hospital Records Database). It is possible that the glasshouses had been developed to provide food for the hospital. Aerial photography shows that the glasshouses had been entirely demolished by 1948 when small paddocks and allotments can be seen in the south-western part of plot C.

The various pits found in this plot seem all to be fairly late in date and presumably related to the late 19<sup>th</sup> and 20<sup>th</sup> century activity. The group of four pits must have supported a timber structure but the maps give no indication of what this might have been.

# 8. ARTEFACTS AND ECOFACTS

# 8.1. Artefacts

The specialists who carried out the assessments on the artefacts are listed in appendix II. The full reports are included in appendix III and brief summaries only are given below, where possible using direct quotes from the reports.

#### 8.1.1. Roman pottery

# Peter Webster

See appendix III.1 for full report.

The assemblage from this site is small and noticeably spread in date. Fragments of some 46 vessels were recovered, along with 4 brick fragments, not all certainly Roman. Almost an eighth of the vessels represented were in samian, including one form that went out of production c.A.D.85. The remaining six vessels span the later first and second century. Other diagnostic sherds include a sherd of mortarium which is unlikely to have been made prior to c.A.D.180 (figure 38).

Black-burnished ware was represented by fragments of only three or four vessels, none closely dateable although one jar neck seems likely to date to the second half of the Roman period rather than the first, while a bowl wall with lattice decoration is most likely to be  $2^{nd}$  century in date.

The diagnostic pieces are completed by a mortarium, probably from Mancetter- Hartshill and 3<sup>rd</sup> or 4<sup>th</sup> century in date. Other vessels are represented only by wall fragments and are likely to be more local in origin and can only be given a generalised Roman date.

Overall the assemblage shows a slight bias towards the later  $1^{st}$  and  $2^{nd}$  centuries, with at least one sherd which should have reached the area very early in the Roman occupation. It would seem to indicate Roman activity in or near the area investigated from the Flavian period through to at least the  $3^{rd}$  century. The precise nature of that activity is unclear, at least from this comparatively small sample of sherds.

# 8.1.2. Glass

# See appendix III.2 for full report.

Three of the glass finds were tiny chips recovered from wet sieving. Two came from mortuary enclosure [5003] (sf521 and sf524) and one (sf527) from enclosure [5004]. However these are almost certainly modern and are certainly small enough to penetrate deep into the soil through animal burrows and other bioturbation. A piece of glass panel (sf503) was found in the upper fill of grave [5005], which Hilary Cool concluded was modern and intrusive. The rim and neck of a bottle (sf511) in a light green/blue glass was found in the ploughsoil in plot B. The colour suggested a Roman date but Hilary Cool identified this as part of an apothecary's bottle of nineteenth century date.

#### 8.1.3. Pyrotechnical residues

# See appendix III.3 for full report.

The material submitted for assessment was composed of two types; possible metal-working debris and burnt clay. The burnt clay was recovered from three ovens ([218], [279], and [3007]) as representative samples of the heat-affected lining of these ovens. These materials generally had little binding clay comprising mainly concreted sand and gravel. A few pieces had a much higher clay content and appeared to be very low-fired, but even these had little evidence of being prepared clays. Tim Young's conclusion is that the material is likely to be natural substrate that has been lightly fired. These examples of the ovens were therefore not clay-lined and not fired to a high temperature.

Six collections of magnetic residues from sieved samples, one isolated slag fragment and a piece of concreted material initially identified as slag were submitted for assessment. Much of the magnetic material was natural, but all samples contained some pyrotechnological residues, including low-density, glassy, vesicular slag, often occurring as rounded blebby pieces or sub-spheroidal droplets. Tim Young identified this material as fuel ash slags, which can be generated through the partial melting of soil or hearth clay in ordinary fires, not just from high temperature metal-working activities. Some of the pieces may be clinker, produced where coal is used as a fuel, and these were presumably intrusive in their contexts, although it is possible that coal was used in the Roman period. However the quantity of this material in the ovens is so small that it must be concluded that this material was intrusive and not indicative of coal use to fire the ovens.

Some of the slag material may have been true metallurgical slag, but the assemblage lacks clear evidence for iron-working, with the exception of a single piece of spheroidal hammerscale, making it unlikely that iron-working was one of the activities taking place on the site.

A piece of corroded material (sf6) was identified as a probable iron object and that is discussed below with the other iron objects (see section 8.1.5. Iron objects).

#### 8.1.4. Bone

### Dr Nóra Bermingham

See appendix III.4 for full report.

A small collection of mammal bone from 8 contexts was submitted for analysis. The material was recovered from the wet sieving residue and is all of a small size. The assemblage comprised of approximately 16 burnt bone fragments, ranging in size between 5mm to 10mm in length and with a total weight of less than 10g. The material is poorly preserved. There are no intact bones or diagnostic bone fragments present which would allow positive identification to species.

The small quantity of material submitted limits interpretation of the assemblage. Human bone has not been identified with the majority of fragments clearly derived from non-human mammals. Sheep/goat size animals are represented but further species identification was not possible. At best, the small assemblage represents general domestic waste which could derive from a range of food related activities. Small fragments appear to have been introduced to grave and mortuary enclosure fills, probably from material generally present in the soil. It might be argued that the bone originated in activity relating to the ovens, but only one oven [184] produced bone fragments from its fills, so there seems to be no reason to link the burnt bone to the ovens.

The charcoal-rich deposit (5056) in the ditch of mortuary enclosure [5004] produced a few more fragments than typical for the site. In this case the fragments may have come with the few sherds of Roman pottery in this context from  $1^{st}$  or  $2^{nd}$  century AD activity on the site, possibly resulting in the creation of a midden. However radiocarbon dates from this deposit (see section 9.2.1. Samples from isolated features) suggest that much of it was created in the  $6^{th}$  or  $7^{th}$  centuries AD and the bone fragments may be related to this activity.

## 8.1.5. Iron objects

# See appendix III.5 for full report.

Six iron objects were found most of which are nails or fragments of nails from graves, ovens and two mortuary enclosures. In general the objects are small and are likely to be intrusive. Two of the objects are larger and were found in more secure contexts. These were x-rayed to investigate them in more detail. Sf501 is a heavily corroded object from a fill of oven [5009]. The x-ray showed that it is a large nail, and it is presumably contemporary with this feature, i.e. of Roman date, but its relationship to the use of the oven is not clear. Sf6 is a chunk of corroded material from the fill of grave [117]. The x-rays revealed it to be a rectangular piece of iron which tapers slightly towards a rounded end with the wider end appearing to have broken off a larger object, possibly a bar. Viewing the object from the side the rounding off at one end is also noticeable. As Roman pot sherds were included in the backfill of the graves it is hard to be sure of the date of this object and its function is equally uncertain.

# 8.1.6. Flint and other worked stone

# George Smith

### See appendix III.6 for full report.

There are seventeen pieces of worked flint or chert from a grave [361], and 2 ovens ([238] and [265]) and a pit [318]. Of these, four pieces (sf23, sf28, sf32) are from isolated contexts and probably unrelated. Pit [318] however produced thirteen pieces (sf33) comprising a small associated and contemporary group.

The flints came from the upper silty fill (322) over a layer of charcoal and burnt stones. All the pieces are waste products; all flakes or fragments with no cores, utilised pieces or retouched tools; presumably the better flakes have been taken away. All but two pieces are of similar material and probably come from one knapping episode. The technology is marked by scalar flakes, with facets on both faces, resulting from the working of small pebbles of poor quality flint, probably dependent on use of an anvil to split the pebble. Two pieces are of a better quality flint. The same scalar technology is found in the worked flint and chert from the settlement activity that was found to pre-date the Trefignath chambered tomb, Holyhead, Anglesey and dated to *c*. 4000 Cal BC (Healy 1987).

The technology therefore indicates a Neolithic date, and this is supported by the radiocarbon dates from this feature (see section 9.2.1. Samples from isolated features). The two flints from oven [238] were made using similar materials and technology and so could come from associated activity to that represented in pit [318]. However the two features were about 20m apart.

There are four other worked stone objects: a small pebble and three pieces of shaped building stone. The pebble (sf31), from the fill of grave [212] is a small well-rolled naturally-shaped gravel pebble of dark, hard rock, possibly chert (D. Jenkins, pers. com.). It has not been artificially shaped but is a natural slightly flattened sphere, 7mm dia. and 5mm deep. It has two slight incised holes, one in each flattened face. The holes are approx. 1.5mm deep and slightly conical with rounded bases so appear to have been artificially incised as if attempting to create a bead. However, the holes are not exactly aligned with each other, face to face, and it is unusually small for a pebble bead so its identification

remains somewhat suspect. The incisions are so small in diameter that, if they are man-made, a metal point must have been used, not a flint point, which would have created a wider, conical hole.

The other objects (sf04, sf05, sf07) from mortuary enclosures [5003] and [5004] are all similar broken fragments of sub-rectangular blocks of stone that have been chipped to produce faces on three sides to create slabs for construction of a coursed and faced wall. The pieces of worked building stone occur in contexts without any identifiable association with any stone construction so the pieces must have been deliberately introduced to the site for some other reason. The stone used is sandstone of probably Carboniferous age, beds of which are found around Caernarfon. Both Ordovician and Carboniferous sandstones were used in the construction of Segontium fort (Jenkins, Appendix III.6.3 Geological report on building stones). The careful working of the stone suggests its use in a fairly prestigious building and its origin seems most likely to be from the fort.

# 8.2. Environmental data

# 8.2.1. Charcoal and other charred plant remains

Rosalind McKenna

See appendix III.7 for full report.

Of the eighty three samples submitted, charred plant macrofossils were present in thirty seven of the samples, and identifiable remains were present in thirty two of the samples. They were generally poorly preserved, and were lacking in most identifying morphological characteristics. The samples generally produced small assemblages of plant remains both in volume and diversity.

The most abundant remains were oat grains, and the presence of cereal chaff may indicate the use of cereals at the site, although most of the chaff came from the fill of graves and mortuary enclosure ditches, suggesting that it may have originated from burning stubble. Another, more indirect, indicator of cereals being used on site is the remains of arable weeds that were found in nine of the samples, particularly from the medieval corn drier [137] and medieval pit [190]. Charred hazel nut shell fragments were also present.

Charcoal remains were present in all eighty three of the samples and there were identifiable remains in forty two of the samples. The preservation of the charcoal fragments was relatively variable even within the samples. The identifiable remains were dominated by oak and hazel. Ash and willow/poplar were also present, with small amounts of elm and alder, indicating a local environment with a range of trees and shrubs.

The charcoal assemblages from the varying features and phases are all very similar. A constant use of oak as the most popular fuel is selected with hazel, ash, willow/poplar, alder and elm also being utilised in varying amounts. Only a single sample produced identifiable charcoal from the grave fills (sample 092, grave [163]) and the only identifiable fragments were oak. A single sample from the mortuary enclosure (sample 508 [5004]) also produced identifiable remains, and this contained purely hazel charcoal.

The samples from the ovens and the corn dryer all produced similar remains, showing a predominance of oak, with hazel, ash, elm and willow/poplar being used as fuel.

Ash dominated the sample from pit [340] (sample 089), and hazel dominated that from gully [5007] (sample 509). Two samples from features in group (472) that have been interpreted as possible tree roots produced only remains identifiable as oak, possibly confirming this interpretation.

The archaeobotanical evidence found in the samples was all very similar. Indeterminate cereal grains were present in eight samples from the cemeteries, in small numbers. Barley was present in small numbers in a sample (sample 6) from the mortuary enclosure [109]. Oats were present in samples from the fills of graves [186] and [163], but again in very small numbers. Hazel nut shell fragments were also present in grave [186]. Overall, the low numbers of grains and weed seeds in the samples from the early medieval period probably indicates the use of material cut from cultivated ground as fuel or stubble burning.

Samples from pit [318] produced abundant hazel nut shell fragments. Together with the hazel charcoal also recorded from these samples, it may indicate that they are merely representative of complete hazel branches being burnt. Six samples from pit features produced plant macrofossils, particularly pits [205] and [190], which produced reasonable sized assemblages both in terms of abundance and diversity. The sample from feature [205] was dominated by indeterminate cereal grains, but also recorded the remains of barley, wheat and oat together with several weed seeds. A small number of hazel nut shell fragments were also recorded from this feature. The two samples from feature [190] were both also dominated by indeterminate cereal grains, but in addition they produced significant numbers of oats and small numbers of barley and wheat grains, together with several weed seeds. This may indicate the dumping of spoilt grain or a cooking mishap, or it may be the build-up of occupational waste and its subsequent deposition into the pit.

The samples from the ovens produced very small assemblages of plant macrofossils both in terms of abundance and diversity. Seven features contained indeterminate cereal grains, two contained wheat grains, three contained barley grains and two contained oat grains. These were all however in very small numbers, and so little interpretation can be made other than to state their presence.

Two samples from the corn dryer [137] produced remains of plant macrofossils. Both samples produced relatively small assemblages both in size and diversity. The most abundant remains in the samples were oat grains, followed by indeterminate cereal grains. Barley and hazel nut shell fragments were also recorded in both samples. Overall, the low numbers of grains and weed seeds in the samples indicates the accidental burning of cleaned grain and its subsequent disposal.

Another, more indirect, indicator of cereals being used on site is the remains of arable weeds that were found in nine of the samples. Among these weeds, some of which are characteristic of cereal fields and rarely found elsewhere, are dock (*Rumex*), and goosefoot/orache (*Chenopodium* spp. / *Atriplex* spp.).

## 8.2.2. Analysis of the assemblage from gully [5007] Rosalind McKenna

## Results

The assessment indicated that the most abundant remains in terms of volume from all the samples assessed, originated from sample 509 which came from gully feature [5007]. It was recommended that full analysis be carried out on this sample. The full report and tables showing species identified are included in appendix 8.

The sample produced a large assemblage of plant remains in volume. The most abundant remains were oat grains. Indeterminate cereal grains, lacked identifying morphological characteristics, were also recorded, and wheat and barley were present in small numbers. Charred hazel nut shell fragments were also present within the sample, together with a small suite of weed/wild plants.

Charcoal remains were present in the sample and scored a '4' on the abundance scale. The total range of taxa comprises willow/poplar (Salix/Populus), and hazel (Corylus). Hazel is by far the most numerous of the identified charcoal fragments.

Root / rootlet fragments were also present within the sample. This indicates disturbance of the archaeological features, and this may be due to the nature of the feature being relatively close to the surface, as well as deep root action from vegetation that covered the site. The presence of earthworm egg capsules further confirms this disturbance.

## Discussion

The charcoal remains showed the exploitation of several species, with the prevalence of hazel being selected probably for use as fire wood. 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). Willow/Poplar was present in smaller numbers. These 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. Bark was also present on some of the charcoal fragments, and this indicates that the material is more likely to have been firewood, or the result of a natural fire.

Oat grains dominated the charred macrofossil assemblage. These were divided into two size categories: large grains which were retained on the 2mm sieve; and small, slender grains which passed through this sieve. All of these may be from *Avena sativa* (cultivated oats), as the spikelets of this species usually have two fertile florets, the first producing larger grains than the second (Jacomet 2006).

Oats are often grown on poor, acidic soils, and in areas of high rainfall and low summer temperatures. Bristle oat, in particular, was a useful crop in the past for the most infertile soils in Wales and Scotland (de Rougemont, 1989). Oats grow best on water-retentive soils such as loams and clays, and they are often spring-sown because they are not very frost-hardy. Rather than being ripened in the field, they should be harvested in an under-ripe state to avoid the ears shattering prematurely, and then dried indoors, in ovens, or over hearths. They are valued for the high energy fodder they provide to livestock, particularly draught animals.

Oats form a hardy crop which is less susceptible to wet weather and better suited to acid sandy soils such as those locally present than wheat or barley. It is possible that they were a significant crop at the site. Oats form an important source of animal feed, particularly for horses, but are also an important human food. Markham (1668), writing in the 17<sup>th</sup> century, writes 'of the excellency of oats and the many singular virtues and uses of them in a family' (Markham 1668, 175-180) which include malt for ale, and as oatmeal used in place of salt, for a variety of foods including bread, oaten biscuits, haggis and greets, as well as animal feed.

The abundance of the small, slender grains, together with the presence of several grass species, suggests that at least a proportion of these grains, are probably from wild species of oats. Grasses were also represented in the sample and included brome, bristle oat, and tubers of false oat-grass/onion couch.

Another, more indirect, indicator of cereals being used on site is the remains of arable weeds. Among these weeds, some of which are characteristic of cereal fields and rarely found elsewhere, are dock (*Rumex*), and common chickweed (*Stellaria media*).

If cereal processing were occurring at the site, it would be expected that some remains of cereal chaff would be found. There was chaff present but only in small amounts in comparison to the amount of grains recorded. However, the rarity of chaff is a phenomenon repeatedly reported from archaeological deposits, and although this may suggest that the grain was already threshed and winnowed by the time it reached the site, it may also show that any chaff was burnt up completely in the fires in which it was deposited. The former of these two theories is however the more plausible.

The deposit contained a mixture of grain and similarly sized weed seeds, such as grasses (POACEAE), which most likely represent the fine sieve product (i.e. the cereal grain and larger sized weed seeds retained by a fine sieve ) in the crop processing sequence (Hillman 1981; 1984; 1985 and Jones 1984). Fine sieving was most likely performed just before milling (Jones 1984, 46) or some other use, such as malting or parching (Hillman 1981, 137). Large seeded weeds of crops were most likely removed by hand prior to preparing the grain for use in milling, parching, malting, cooking etc. (Jones 1984, 46). There was no sign of sprouting on the grains, so it does not seem to have been charred during roasting of the malt. It is therefore probable that the plant macrofossils represent the waste from a cooking accident.

Hazel-nuts are valuable nutritionally, as well as being readily available. In addition, the nut shell is hard and resistant to decay ensuring its survival in some quantities. The hazelnut shells recovered are 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.

A single garden pea (*Pisum sativum*) was present in the sample, and this was radiocarbon dated to 1525-1660 cal AD (SUERC-41966), much later than the date on a grain of oats (990 – 1120 cal AD (SUERC-41967)). It is therefore assumed that the pea is intrusive and does not relate to the main assemblage from this sample.

The plant macrofossils were present within a shallow gully. In terms of taphonomy, it is likely that this sample represents secondary deposition of charred plant remains. This probably occurred through

intentional dumping. 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.

It is likely that this sample represents a single depositional event, possibly relating to either a spoilt grain store, an accident whilst drying the grains or the remnants of a meal. The preservation of the grains tended to be very good, and it was even possible to view the hairs on the oats which indicate they were of the cultivated variety. It is probable that the wheat and barley grains as well as the identified and unidentified grasses were incorporated into the oat crop as weeds.

Oats may have been dried in small quantities over the fire to make the moisture content low enough for grinding into flour, or to help remove the outer chaff. Alternatively, they can be used whole in porridge, soups and stews.

The radiocarbon date on an oat grain (990-1120 cal AD (SUERC-41967)) indicates the deposit dated to the end of the early medieval period or the start of the high medieval period. Comparisons with other sites in Wales suggest that it was fairly typical for early to high medieval rural and urban sites to be consuming predominantly oats. Where good preservation has enabled identification to species level to be carried out, such as in the early medieval samples from Capel Maelog (Caseldine, 1990, p.102) and in a 12<sup>th</sup> century sample from Loughor Castle, West Glamorgan (Carruthers, 1994), both common cultivated oat (*A. sativa*) and bristle oat (*A. strigosa*) were present. The assemblages of barley, oat and wheat are consistent with the Welsh early medieval period. Barley was common and oats were becoming an important crop plant (Greig 1991). 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.

Evidence from elsewhere in Wales suggests that oats were the main cereal of the medieval period, and remains of this crop have been found in medieval corn driers e.g. at Collfryn, Llansantffraid Deuddr, Powys (Jones and Milles 1984). There were 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.

Oats are also are frequently recovered from Saxon and 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 11<sup>th</sup> 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.

# 9. RADIOCARBON DATING

Derek Hamilton (SUERC)

#### 9.1. Methodology

A total of 24 samples were processed for radiocarbon dating. These samples were of charcoal and charred macrobotanical remains recovered from 12 individual features that included a corn drier, mortuary enclosure, pit with grain and another with Neolithic flint, a gully with an abundance of charred oats, and seven ovens. All the samples were processed and dated at the Scottish Universities Environmental Research Centre, East Kilbride (SUERC).

All the samples were short-lived single entities (Ashmore 1999). They were pretreated following methods described in Stenhouse and Baxter (1983); they were then combusted as described in Vandeputte *et al* (1996) with the graphite targets prepared following Slota *et al* (1987). The graphite targets were measured by Accelerator Mass Spectrometry (AMS) as described by Xu *et al* (2004).

The SUERC laboratory maintains rigorous internal quality assurance procedures, and participation in international inter-comparisons (Scott 2003) indicates no laboratory offsets; thus validating the measurement precision quoted for the radiocarbon ages.

The results shown in appendix III.9 Table 1 are conventional radiocarbon ages (Stuiver and Polach 1977), quoted according to the international standard set at the Trondheim Convention (Stuiver and Kra 1986). The results have been calibrated with the internationally agreed IntCal09 atmospheric curve of Reimer *et al* (2009), using OxCal v4.1 (Bronk Ramsey 1995; 1998; 2001; 2009a). The date ranges in appendix III.9 Table 1 have been calculated using the maximum intercept method (Stuiver and Reimer 1986), and quoted in the form recommended by Mook (1986) with the endpoints rounded outward to 10 years when the errors are 25 years or greater, and to 5 years where they are less than 25. The probability distributions seen in appendix III.9 Figures 1–7 were obtained by the probability method (Stuiver and Reimer 1993). The dating certificates are included as appendix III.10

# 9.2. Results

# 9.2.1. Samples from isolated features

There are two results (SUERC-41947 & -41951) on samples of charred hazel nutshell and hazel charcoal, respectively, from the fill (319) of pit [318] that contained Neolithic flakes. The two results are not statistically consistent (T'=15.0; v=1; T'(5%)=3.8), which suggests the deposit contained material of mixed ages. The later date (SUERC-41947) provides the best estimate for the date of this activity of 2560–2350 cal BC (95% confidence; appendix III.9 Fig 1).

There are two results (SUERC-41964 & -41965) on samples of hazel charcoal from layer (5056); a dump of charcoal in the ditch of mortuary enclosure [5004]. The two results are not statistically consistent (T'=10.9; v=1; T'(5%)=3.8), which suggests that this deposit contains material of mixed ages. The later date (SUERC-41964) provides the best estimate for when this deposit was formed of cal AD 635–670 (95% confidence; appendix III.9 Fig 2).

There are two results (SUERC-41952 & -41953) on samples of carbonised wheat and barley, respectively, from the grain-rich fill (199) of pit [190]. The two results are statistically consistent (T'=1.3; v=1; T'(5%)=3.8), and so the samples could be the same actual age. The later result (SUERC-41952) provides the best estimate for the formation of this deposit of cal AD 1040–1215 (95% confidence; appendix III.9 Fig 3).

There are two results (SUERC-41961 & -42596) on samples of carbonised barley grains from fill (136) of corn drier [137]. The two results are not statistically consistent (T'=8.2; v=1; T'(5%)=3.8), suggesting the deposit may be of mixed age material. The later date (SUERC-41961) provides the best estimate for the formation of the deposit of cal AD 1220–1280 (95% confidence; appendix III.9 Fig 4).

There are two results (SUERC-41966 & -41967) on a charred garden pea and oat grain, respectively, from a charred oat rich fill (5067) of gully [5007]. The two results are very different, and given the amount of oat in the deposit it is likely that the single garden pea that was recovered is intrusive. Therefore, SUERC-41967 provides the best estimate for the formation of this deposit of cal AD 990–1120 (95% confidence; appendix III.9 Fig 5).

# 9.2.2. Bayesian modelling of radiocarbon dates from ovens

A Bayesian approach has been adopted for the interpretation of the chronology of the ovens at Ysgol yr Hendre (Buck *et al* 1996). Although the simple calibrated dates are accurate estimates of the dates of the samples, this is usually not what archaeologists really wish to know. It is the dates of the archaeological events represented by those samples, which are of interest. In the case of the ovens it is the overall chronology of the use of these features in this area – when did it begin; when did it end; and for how long did it take place – that is under consideration, not necessarily the dates of any individual samples.

Fortunately, methodology is now available which allows the combination of these different types of information explicitly, to produce realistic estimates of the dates of archaeological interest. It should be emphasised that the *posterior density estimates* produced by this modelling are not absolute. They are interpretative *estimates*, which can and will change as further data become available and as other researchers choose to model the existing data from different perspectives.

The technique used is a form of Markov Chain Monte Carlo sampling, and has been applied using the program OxCal v4.1. Details of the algorithms employed by this program are available from the online manual or in Bronk Ramsey (1995; 1998; 2001; 2009a). The algorithm used in the model described below can be derived directly from the model structure shown in appendix III.9 Figures 6 and 8.

Results from the seven ovens dated as part of this programme have been analysed within a Bayesian model. There was little archaeological evidence for the dates of the ovens, although the presence of Roman pottery scattered across the site was suggested as being associated with the oven activity. The only assumption of the model is that the dates belong to a single phase of activity.

The two results (SUERC-41942 & -41943) on hazel charcoal from fill (169) of oven [166] are statistically consistent (T'=0.1; v=1; T'(5%)=3.8) and the samples could be the same actual age.

The two results (SUERC-41937 & -41941) on hazel charcoal and a carbonised wheat grain, respectively, from fill (183) of oven [184] are not consistent, and it is likely that the carbonised grain is intrusive. SUERC-41941 has been excluded from the modelling.

The two results (SUERC-41944 & -42597) on a carbonised wheat grain and ash charcoal, respectively, from fill (262) of oven [249] are not statistically consistent (T'=4.1; v=1; T'(5%)=3.8), suggesting the sample is of mixed-age material. The measurements are consistent at  $3\sigma$ , suggesting either that one of the measurements is a slight statistical outlier, or that the feature was in use for some period of longevity.

The two results (SUERC-41945 & -41946) on hazel charcoal from fill (280) of oven [278] are statistically consistent (T'=0.3; v=1; T'(5%)=3.8) and the samples could be the same actual age.

The two results (SUERC-41954 & -41955) on hazel charcoal from fill (477) of oven [473] are statistically consistent (T'=0.6; v=1; T'(5%)=3.8) and the samples could be the same actual age.

The two results (SUERC-41956 & -41957) on hazel charcoal from fill (492) of oven [491] are statistically consistent (T'=0.3; v=1; T'(5%)=3.8) and the samples could be the same actual age.

The two results (SUERC-41962 & -41963) on hazel charcoal from fill (5023) of oven [5009] are statistically consistent (T'=1.2; v=1; T'(5%)=3.8) and the samples could be the same actual age.

The chronological model developed for the ovens has good agreement between the radiocarbon results and the archaeological assumption that this is a unified phase of activity ( $A_{model}=106$ ).

The model estimates that this activity began in *cal AD 25–80 (95% probability*; appendix III.9 Fig 6; *start: Oven activity*), and probably in *cal AD 50–75 (68% probability*). It lasted for up to *80 years* (95% probability; appendix III.9 Fig 8; *span: Oven activity*), and probably for only *1–30 years (68% probability*). This activity ended in *cal AD 60–120 (95% probability*; appendix III.9 Fig 7; *end: Oven activity*), and probably in *cal AD 70–90 (68% probability*).

After having excluded SUERC-41941 as intrusive, the remaining measurements from the ovens are statistically consistent (T'=15.6; v=12; T'(5%)=21) and all could be the same actual age. This suggests that the span of activity may have been shorter, rather than longer.

# 9.3. Discussion of the ovens

The fragile nature of the ovens suggests that each one was not reused for long periods. It is proposed that all the ovens might have been used over a very short period of time, as part of a single event, and the results showing that the radiocarbon measurements are statistically consistent do lend some support to this interpretation, or at the very least do not make it unlikely.

Working from the hypothesis that these ovens are all related to a single short-lived event it is possible to suggest a more precise date for that hypothetical event by combining all the radiocarbon dates. This form of combination is Bayesian and is not to be confused with the procedure whereby two or more radiocarbon ages on the same material are combined prior to calibration using the method described in Ward and Wilson (1978). In OxCal, these two very different methods are called using the *Combine* and

*R\_Combine* commands for the Bayesian and Ward and Wilson methods, respectively. The *Combine* method is the preferred one, especially as it also allows for the evaluation of dates through the production of individual indices of agreement.

Since we are attempting to model the year that the hypothetical event occurred, an estimate that is expected to be very precise, it is important to account for sources of offset in the radiocarbon measurements. In the case of charcoal, the radiocarbon age is a mean measurement of a few years' growth and so will always be slightly earlier than the year that the material was used. It is possible to account for these slight offsets by building outlier analysis into the model (Bronk Ramsey 2009b). This can be done explicitly using the *Outlier\_Model* command in OxCal, and in this case the generic model for charcoal has been implemented with a 100% probability applied that any given measurement is an outlier (e.g. older than the feature), with the exception of SUERC-41944, a measurement on a grain of wheat that presumably was charred as part of the use of the oven and is not likely to be residual.

Overall the model has a good agreement ( $A_{model}$ =77), and it estimates that the material in the ovens dates to *cal AD 60–85* (*95% probability*; appendix III.9 Fig. 8; *Ovens*), and probably to *cal AD 65–80* (*68% probability*). The construction of Segontium fort is poorly dated but historical evidence suggests that it was built soon after AD 77. A correlation plot for *Ovens* against cal AD 77 is given in appendix III.9 Figure 9, which suggests the dated material may just pre-date when Segontium was constructed (71% probability that *Ovens* is earlier than AD 77). Considering that the charcoal date is likely to just pre-date the use of the ovens it is quite plausible that, if the ovens were used as part of a single event, that this event was contemporaneous with the construction of the Segontium.

# **10. DISCUSSION**

# **10.1.** Cemeteries

# 10.1.0 Introduction

The cemetery at Ysgol yr Hendre, characterised by the presence of mortuary enclosures and associated extended inhumation graves aligned approximately east-west is typical of other cemeteries found throughout Wales which date from the Early Medieval period. Though the origins of the burial practices which gave rise to these features lie within Iron Age and Roman times there was a marked increase in the number of such cemeteries in the 6<sup>th</sup> to 8<sup>th</sup> centuries AD, which are usually considered to be burial grounds of kindred groups (Petts 2009, 109-132). During this period places of Christian worship would have been located elsewhere, within the principal settlement, and indeed there is no certainty that all graves within these Early Medieval cemeteries are Christian, as there is considerable evidence for the presence of pagans and Christians buried alongside one another. It is thought that the mortuary enclosures indicate specific focal graves, around which the remainder of the cemetery developed, however because of the lack of stratigraphic evidence it is rare to be able to demonstrate any sort of chronological development.

# 10.1.2 The mortuary enclosures and cemetery

Square or rectangular mortuary enclosures have been excavated at 5 sites in North Wales (Tandderwen, near Denbigh; Capel Eithen, Anglesey; Trefollwyn, near Llangefni, Anglesey; Druid near Corwen, and Llandygai, near Bangor) and at Plas Gogerddan, Dyfed in mid Wales. Like the Ysgol yr Hendre cemetery (originally recorded as Tyddyn Pandy square barrow cemetery NPRN<sup>3</sup> 404650 (Driver 2006, 147)) several of these sites were first found by aerial photography. Other sites are known only as a result of aerial photography and have not yet been investigated on the ground. Table 1 lists possible early medieval mortuary enclosures recorded across Wales from aerial photography. A square-ditched feature resembling an early medieval mortuary enclosure with a central grave was also identified by geophysics on a prehistoric site at Lower Luggy, Berriew, Powys (Gibson 2006, 167).

NPRN	Site name	Community	County	Description	Reference
405382	Bryn y Garn	Margam	Neath	Small square ditched	NMR record
				enclosure, no grave evident	
				in centre	
405314	Bryn-	Ciliau Aeron	Ceredigion	Square barrow with central	Driver 2006, 145
	Mynach			grave	
310263	Croes Faen	Bryn-Crug	Gwynedd	Up to 5 square barrows	NMR record and
			-		Crew and Musson
					1996, 34
410158	Crossfield	Old Radnor	Powys	Probable square barrow	NMR record
	Lane		-	-	
308907	Ffynnon	Llangoedmor	Ceredigion	Up to 4 small square	Driver 2003, 71
	-	-	-	enclosures, possibly square	
				barrows	
414132	Llandyssil	Llandyssil	Powys	Possible square barrow	NMR record
	Bridge	Bridge	-	_	
408285	Pennant	Denbigh	Denbighshire	Enclosure 20m square,	Driver 2008, 90
	Farm			possibly a square barrow	
404666	Penrhyn	Llandygai	Gwynedd	At least 2 square barrows	Driver 2006, 147
	Park			with central graves	

Table 1: possible early medieval mortuary enclosures recorded across Wales from aerial photography

The number of mortuary enclosures on each site varies as do their sizes but they are all quite similar in ground plan, defined by square or rectangular trenches surrounding one or more graves. The term 'square barrow' is sometimes used for these features and some of the enclosure trenches may have functioned as quarry ditches to create a low barrow. However excavated sites show that features with the same ground plan may have had very different superstructures. At Tandderwen the ditches had silted up gradually and almost certainly functioned as open ditches (Brassil et al 1991, 64). The square trench at Trefollwyn was probably also an open ditch

<sup>&</sup>lt;sup>3</sup> National Primary Record Number (used to identify entries in the National Monuments Record)

(Davidson et al 2002, 73-77). At Druid an archaeological trench was excavated through one of the 6 mortuary enclosures and much of the ditch fill was interpreted as having eroded from a central mound (Jones *et al* 2011). However, at Plas Gogerddan the best preserved square-ditched enclosure had a dark soil stain along the centre of the trench indicating a timber structure. It also had two postholes either side of the entrance (Murphy 1992). The feature at Capel Eithin had the remains of timber in the base of the trench and a clay floor inside, suggesting a roofed building (White and Smith 1999). Possible packing stones in the fill of the feature found on the Llandygai Industrial Estate could also indicate a timber structure (Longley 2001, 109).

Sites with open ditches might be envisaged as low barrows surrounded by ditches, while those with foundation trenches seem to have been small timber structures, possibly plank-built and sometimes with roofs. There was no firm evidence on the Ysgol yr Hendre site of the enclosure ditches having supported timber structures so it is assumed that they were open and surrounded low mounds. As there were entrances formed by causeways through the ditches it might be assumed that the mound covered the grave but that there was a berm around it allowing access within the enclosure. Recutting of the enclosure ditches after they had largely infilled as may have occurred at the two enclosures in Ysgol yr Hendre plot B is not reflected on the other excavated sites, but not all were fully excavated.

The mortuary enclosures generally have a long axis running approximately east-west and the majority, but not all, have gaps or entrances on the eastern side (Longley 2009). One of the few exceptions to the eastern entrance is the Lower Luggy example, which although unexcavated looks exactly like a square-ditched mortuary enclosure but it has the entrance on the western side (Gibson 2006, 167). Where there are several enclosures these tend to be similarly aligned, as at Tandderwen, but at Druid four enclosures are on the same alignment, while two others are aligned slightly differently. It seems likely that features on different alignments are of a different date, but reliable dating material from these sites is rare so this is difficult to test.

The enclosures are generally small, similar in size to the Ysgol yr Hendre examples, with sides usually about 5m long. There are larger examples with the largest at Tandderwen about 10m square and the largest at Druid possibly 9m square. Lower Luggy is about 10m across (Gibson 2006, 167), and if the cropmark seen at Pennant Farm is really an early medieval mortuary enclosure it seems to be particularly large at c.20m square.

Only a single enclosure was present at Llandygai Industrial Estate, Trefollwyn and Capel Eithin, but three were excavated at Plas Gogerddan, nine at Tandderwen, and six are known from Druid. Of the aerial photography sites there are up to five enclosures at Croes Faen, possibly four at Ffynnon and two or three at Penrhyn Park. The results from Ysgol yr Hendre shows that where a single enclosure might initially be spotted from the air more might be found on excavation.

The enclosed grave is usually centrally positioned and aligned on the long axis of the enclosure, pointing towards the entrance where this is present (Longley 2009). The majority of enclosures contain only one grave, but there can be up to three, as at Tandderwen and at Trefollwyn.

Square ditched mortuary enclosures are rarely isolated features, but lie within larger cemeteries containing unenclosed graves of extended inhumations, usually aligned east-west. The isolation of the two enclosures in plot B is therefore unusual, though these may lie within an area intended for further burial but never used. Cemeteries of this period are often considered to be kin-based (Petts 2009), and it may be that the grave grouping reflects this.

## 10.1.3 The date of the cemetery

Cemeteries with similar square-ditched enclosures around burials were in use in the late Iron Age, especially in the 'Arras' complex cemeteries of East Yorkshire, and also in parts of Scotland (O'Brien 1999). However, southern England in the Roman period had a similar tradition, which may have arisen from masonry mausolea in Roman cemeteries (Petts 2003). Poundbury in Dorset had both mausolea with stone foundations and square-ditched enclosures around graves. The main cemetery dated to the 4th century AD, but the square-ditched enclosures were just beyond its limits and could have been of a different date (Farwell and Molleson 1993). Four square ditched burial enclosures within a Roman cemetery at Lankhills, Winchester were more securely dated to the 4th century AD (Clarke 1979, 183). This tradition seems to have continued into the post-Roman period especially in western Britain. Sites at Kenn, Devon and Stoneage Barton Farm, Bishop's Lydeard, Somerset had square ditched mortuary enclosures radiocarbon dated to the 5<sup>th</sup> to 8<sup>th</sup> centuries AD and mid-7<sup>th</sup> century AD respectively (Petts 2009, 214).
Cemeteries within Wales which are characterised by the presence of mortuary enclosures and associated graves of east-west orientation (either simply dug or protected by a cist) rarely produce datable material but where they have been dated they usually fall within the 4th to 8th centuries AD, though cist graves of a later medieval date have been found in south-west Wales (Longley and Richards 2000, James 1992). At Tywyn y Capel cist graves were dated to the 5<sup>th</sup> and 6<sup>th</sup> centuries AD, and then superseded by dug graves (Davidson 2010). Two dates from the grave in the enclosure at Capel Eithin were quite different probably because they were on a large plank and suffered from old wood effect. Taking this into account a date in the 7th century AD would be possible (White and Smith 1999, 145). Two dates from graves in enclosures at Tandderwen suggested 5th to 7<sup>th</sup> centuries and 8th to 12th centuries (Brassil et al 1991). The dates from mortuary enclosure [5004] at Ysgol yr Hendre (cal AD 635–670 (SUERC-41964) and cal AD 540–635 (SUERC-41965)<sup>4</sup>) provide an interesting addition to the dating of these features. The dates are similar but not statistically consistent, suggesting a mixed deposit. The sherds of Roman pottery and fragments of burnt bone also suggested mixing and possibly a midden deposit. The deposit contained fairly high quantities of charcoal, all identifiable pieces being hazel, and the dates suggest that the charcoal was not contemporary with the sherds of Roman pottery. The charcoal pieces had a maximum size of 25mm showing that they had not been reduced by being stored and reworked, and perhaps suggesting that the charring event occurred soon before the material was deposited in the ditch. This material can therefore be taken as a probable *terminus ante quem* date for the construction of the mortuary enclosure ditch.

#### 10.1.4 Cemetery location

Roman burial custom decreed that cemeteries should lie outside the main areas of settlement, and outside the defences of forts and towns. Cremations were the principal burial rite of the  $1^{st}$  and  $2^{nd}$  centuries AD, following which inhumation burials slowly became the norm. The cremation cemetery found south of the line of the Roman road south-east from Segontium is therefore typically sited. The burials were discovered while digging graves in the New Cemetery from *circa* 1850 through to 1947. There were about 14 burials represented, all cremations and buried in urns and other vessels. Dated vessels belonged to the late  $1^{st}$  to early  $2^{nd}$  centuries AD (RCAHMW 1960, 163; Pollock 2006).

A scatter of other burials have been found mainly to the north of the fort (Pollock 2006), indicating the likely presence of other cemeteries around the fort with an emphasis on major roads, but perhaps not exclusively restricted to them. The present excavations have also shown that there were no burials within the investigated area between the early Roman cremation cemetery and the later inhumation cemetery at Ysgol yr Hendre. However the lack of firm evidence makes any identification of cemetery location (either cremation or inhumation) difficult to estimate.

On the eastern side of the fort there was a Roman temple to Mithras (PRN 3098) found and excavated in 1959, and located c.150m from the present site. This was used in the 3<sup>rd</sup> century AD and destroyed in the later 4<sup>th</sup> century. It was a stone building with a slate roof and contained features typical of mithraea elsewhere, i.e. an antechamber, a sunken nave with benches and an alcove for the cult images. The temple was destroyed by fire and the altars of Mithras may have been deliberately broken (Boon 1960).

On the Ysgol yr Hendre site the stone found in the ditch of the mortuary enclosure in Plot B may be derived from a Roman building as it was quite carefully dressed. It was not from the mithraeum as this was built of rough field stone (Boon 1960), so its origin from the fort seems most likely, especially as the same sandstone was used in the fort buildings. However this does not explain why the stones were so far from the fort nor why they were so casually dumped. They may, therefore, represent the former existence of a building close to or on the site of the cemetery, but there is no evidence for the date and function of such a building.

Boon (1960, 156) speculates on the connection between the 4<sup>th</sup> century destruction of the mithraic temple and the Christian presence of Saint Peblig (Publicius), to whom the medieval church was dedicated. The saint is traditionally claimed to have been the son of Macsen Wledig (i.e. Magnus Maximus) and to have lived in the 4<sup>th</sup> century (Boon 1960, 156; Bowen 1977). It is not unusual to find medieval churches located over the grave of an early martyr or saint (Edwards 2002). Saints and martyrs resided in heaven, unlike the souls of ordinary mortals who were awaiting resurrection, and therefore communication with God through the corporeal remains of saints was actively practised. To build a church over the grave of such a person gave the church particular credibility. However it was also possible for remains of holy persons to be moved, or translated, from their original resting place, and many churches acquired valuable relics this way. The influences governing the siting of Llanbeblig church are not now easily ascertained. It has been suggested that the location of the church close to or over the earlier Roman cemetery and its dedication to a Roman Christian may indicate the continuity of Roman

<sup>&</sup>lt;sup>4</sup> All radiocarbon dates are quoted at 95% confidence unless indicated otherwise.

Christianity (Davidson 2009). That the church is located well away from the site of the 11<sup>th</sup> century settlement where the medieval borough was to be established also suggests a pre-11<sup>th</sup> century foundation, or at least the presence of pre-11<sup>th</sup> century features which dictated its location. The present remains of the church contain no material earlier than the 13<sup>th</sup> century. The relationship between the cemetery at Ysgol yr Hendre and the medieval church must remain ambiguous, though the concentration of burial and religious monuments within the area east of the fort can hardly be entirely accidental, and could indicate continuity of religious practice here, culminating in the construction of the church dedicated to St Peblig in the 12<sup>th</sup> or 13<sup>th</sup> century.

### **10.2.** Other early features

### 10.2.1. Prehistoric activity

The radiocarbon dates were critical in identifying activity of periods other than the cemetery and ovens. Pit [318] had been suspected as prehistoric because of its small flint assemblage but the radiocarbon dates showed that it was of late Neolithic date. The two dates (2560–2350 cal BC (SUERC-41947) and 2840–2495 cal BC (SUERC-41951) were similar but not statistically consistent indicating some mixing of material in the feature, but the later date suggests the pit was dug in the 26<sup>th</sup> to 24<sup>th</sup> centuries cal BC. No other securely prehistoric activity was identified on the site; other pieces of worked flint were recovered from residual contexts and might have originated from the same activity even though they were found some distance form pit [318].

While prehistoric finds have been made in this area of Caernarfon, in particular the Bronze Age burial urn (PRN 3101) found nearby at Maes y Barcer, there have been very few prehistoric features excavated in the area. In Arfon as a whole there are few Neolithic tombs known and around Caernarfon there are very few Neolithic finds with the exception of some stone axes. Although possibly a single feature this pit proves a slender hint of late Neolithic settlement in the area.

A date of 2580-2460 cal BC (NZA-26681, 95% confidence) was obtained from a pit (pit 6041) at Parc Bryn Cegin, Llandygai (Kenney 2008) and two dates from a pit (3718) found near Clynnog fell within 2565-2460 cal BC (NZA-34256 and NZA-34257, 95% confidence) (Roberts forthcoming). Both pits contained groove ware pottery and occurred in locations where there was more than one phase of pit digging. These features fall within the very end of the Neolithic period, overlapping with dates for Beaker pottery in Britain (Parker Pearson *et al* 2007) and the use of the later henge (henge B) at Llandygai (Lynch and Musson 2001, 75-76). The lack of pottery in the Ysgol yr Hendre pit means that the cultural associations of the people who dug it cannot be investigated but features of this period are rarely excavated in north-west Wales making this pit of considerable importance. Only with more excavation and careful dating can an impression be built up of the distribution and nature of activity in this transitional period.

### 10.2.2. Ovens

### Date

The discussions above have argued that the two chambered features were small ovens, probably for cooking food. The radiocarbon dates show that this activity started *cal AD 25–80* (95% *probability*), probably in *cal AD 50–75* (68% *probability*) and ended in *cal AD 60–120* (95% *probability*), probably in *cal AD 70–90* (68% *probability*) (Hamilton, section 9.2.2. Bayesian modelling of radiocarbon dates from ovens). As oven [5009] was dated this suggests that both the ovens in plots A and B fall within the same date range. The similarly late 1<sup>st</sup> or 2<sup>nd</sup> century AD date for much of the pottery scattered over the site may suggest that it originates from activity associated with the ovens, although only a single sherd of possibly Roman pottery (sf08) came from one of the ovens (oven [218]). However this cannot be proved as this general scatter of sherds could have resulted from the manuring of fields with midden material originating from elsewhere. The presence of some late  $2^{nd}$  century and later items show that not all the pottery could have been related to the ovens.

Other evidence of activity associated with the ovens is slight. Pits [233] and [131] were close to ovens [218] and [260] respectively, and the fire site (247) and pit [254] were less than 5m from both ovens [218] and [294]. However the medieval dates for pit [190] and the corn drier [137] demonstrates that there was other later activity here as well as the cemetery, and any of the undated features could be associated with this.

The ovens were therefore Roman in date but apparently not associated with settlement or industrial activity, ruling out an extension of the vicus to the eastern side of the fort. The initial modelling of the radiocarbon dates shows that the ovens were probably used over a span of 1-30 years (68% probability), and for not more than 80 years (95% probability). They appear to have been temporary structures and the fragile nature of their soil roofs

it unlikely that each oven was used more than a few times. The ovens are scattered over the site generally about 15-20m apart, although some are much closer with [260] and [278] apparently paired. This pattern could indicate the ovens were in use at the same time perhaps by small groups of people camped around them. The radiocarbon dates are consistent with the contemporary use of all the ovens, although they do not rule out the distribution of use over a longer period.

Neither dates nor other archaeological information can prove that all the ovens were strictly contemporary but both the dates and their distribution of the ovens is consistent with this hypothesis. If the hypothesis is accepted and the dates are combined in a Bayesian manner a more precise date for the use of the ovens can be obtained (Hamilton, section 9.3. Discussion of the ovens). This gives a date of *cal AD 60–85 (95% probability)*, probably to *cal AD 65–80 (68% probability)*. This date is on the charcoal used in the ovens which includes growth rings from a few years prior to the use of the wood as fuel, so the date would be expected to be slightly earlier than the actual use of the ovens. The likely historical date for the construction of Segontium is 77 AD (Casey and Davies 1993, 10). There is a 71% probability that the precise date given above just precedes 77 AD and therefore it is likely that if the oven use was a single event that it occurred at about the same time that Segontium was built.

#### Comparisons

Excavations of Roman forts tend to concentrate on the interior of the fort and the defences with less work outside, unless a *vicus* is identified. Most excavated Roman military ovens are therefore more permanent structures than identified at Ysgol yr Hendre. Casey and Davies (1993) excavation in the southern corner of Segontium revealed few ovens until the late 4<sup>th</sup> century period 10 phase when there were ovens and furnaces, mostly built of stone and clay. One of these features was figure-of-eight-shaped (feature 842). This was 4.6m long and dug 0.4m into the ground. The fire chamber contained much burnt clay suggesting a clay superstructure, and some of the clay had wattle impressions. The second chamber was full of charcoal. This feature is not dissimilar to the Ysgol Hendre ovens but appears to have had a well-built clay superstructure that was not suggested by the evidence of any of the ovens.

The *vicus* outside the fort at Manchester (Jones 1974, 67-71) had numerous furnaces, one of which (F16) had some similarity in shape to the Ysgol yr Hendre examples, but these were burnt to a high temperature and contained evidence of metal-working. These were clearly furnaces rather than ovens. The Roman town at Carmarthen also had numerous ovens and hearths, especially from the 105-111 Priory Street excavations (James 2003), but none of the excavated examples were quite the same as the Ysgol yr Hendre ovens.

The simple, generic design of the ovens means that they are not distinctively Roman, and could have been made by local people rather than Roman soldiers. Again excavations of native sites dating to the Roman period tend to concentrate on settlement sites and easily identified features rather than more isolated areas where temporary ovens might have been used. The stripping of large sites at Parc Bryn Cegin, Llandygai, near Bangor (Kenney 2008) and Parc Cybi near Holyhead (Kenney *et al* 2011), which revealed Roman period native settlements and other activity did not produce ovens of a similar type. Finding parallels is difficult as both published late Iron Age and Roman excavations tend to refer to small and scattered ovens in little detail and they are not necessarily illustrated.

There is however a site that provides very close comparisons and confirms a link to the Roman army. In 1984 a single feature interpreted as a field oven (feature C) was found inside a Roman marching camp at Kintore, Aberdeenshire (Shepherd 1986, 207-208). This was similar to but simpler than the Ysgol yr Hendre ovens. In 2000 a large site known as Forest Road was excavated, which covered a large part of the interior of the camp (Cook and Dunbar 2008). This identified 116 'bipartite pits' interpreted as ovens (Cook and Dunbar 2008, 133). These varied in size and shape as the Ysgol yr Hendre ones do but were remarkably similar to those features. The two parts of the pits were interpreted as a cooking chamber and an ash pit. Some ovens had three lobes, similar to Ysgol yr Hendre oven [294]. Some of the cooking chambers were lined with stones and clay but most were unlined. Some even had a slight ridge between the cooking chamber and ash pit, just like the Ysgol yr Hendre ovens. The ash pits seemed to have been open but the cooking chambers are interpreted as having been covered. Useful information was found to suggest how the chambers might have been covered. In oven O070 charred alder branches survived *in situ* and seemed to have been used to support possibly a turf roof over the chamber. This may explain the collapsed soil seen especially in Ysgol yr Hendre oven [5009]; the ovens being partially dug into the ground with over hanging sides but turfs could have been used to form the roof. This roof would have been vulnerable to collapse if the branches supporting it were burnt or rotted. Up to five cooking events were recorded in the Forest Road ovens, but no evidence that they had been used for long periods of time (Cook and Dunbar 2008, 134-136).

The ovens were scattered over the Forest Road site in a way very reminiscent of the Ysgol yr Hendre site; generally singly but with some pairs and in all but one respecting other ovens suggesting that they were all visible at once. The one case of an oven cutting another and the grouping of the radiocarbon dates suggested that there were two phases of oven construction at Forest Road, dating to the 1<sup>st</sup> or 2<sup>nd</sup> century and the 3<sup>rd</sup> or 4<sup>th</sup> century AD (Cook and Dunbar 2008, 144-145, 352). Some of the ovens formed lines across the site and Cook and Dunbar (2008, 144, 350) suggest that the ovens represent the position of tents of individual *contubernia* (groups of 8 men). Gaps in the lines suggest that not all *contubernia* had an oven. At Ysgol yr Hendre ovens [299], [260], [278], and [382] formed a fairly clear line but no other lines can be identified.

The main differences between Forest Road and Ysgol yr Hendre are that on the former site there were also several large rubbish pits of Roman date and that the ovens were clearly within a Roman marching camp. Four similar figure-of-eight ovens were also found within the marching camp at Bromfield, Shropshire (Davies and Jones 2006, 34, 147).

#### Conclusions

The similarity between the Ysgol yr Hendre ovens and those at Forest Road strongly implies that the former were Roman military field ovens. Their date suggests a link to the construction of Segontium fort, but Forest Road also demonstrates that a temporary camp would be expected at Ysgol yr Hendre. Sommer (1984, 55) concludes that construction camps would be about the same size as the permanent camp that they were related to, and at least no more than twice the size. As the area stripped for this project was longer than Segontium fort it seems likely that if there was a camp in this area then at least one of the ditches would have been revealed. Ditch [270], in the southern part of plot A, which contained a few sherds of Roman pottery was too irregular in plan to be part of a defensive work. The alignment of ditch [022] in plot C suggests an association with the 19<sup>th</sup> century field boundaries, but possibly the presence of an earlier ditch and bank had influenced the later boundaries. This ditch was no more than 0.3m deep but Davies and Jones (2006, 24) list several marching camps with shallower ditches. However there is no evidence that ditch [022] continued to form part of a camp ditch. No trace of a camp can be seen on the aerial photographs. Davies and Jones (2006, 20-27) discuss evidence that suggests that not all temporary camps had ditches, or had incomplete circuits. It is possible that the ovens at Ysgol yr Hendre represent a Roman camp for which no other evidence survives. The date of the ovens makes it probable that if this was a camp that it was related to the construction of Segontium fort. The site is about 300m from the fort and separated from it by a shallow valley, but Sommer (1984, 55) identifies construction camps up to 1km from the fort they are probably associated with, so the distance does not rule out a construction camp.

Despite the lack of a defensive ditch the date, form and layout of the ovens does suggest a Roman military camp. In this case it is possible to imagine each *contubernium* camped at fairly regular distances apart, all with a tent and most with an oven. A large piece of leather, and several smaller pieces, found in a Roman well to the north-west of the fort in 1920 have been interpreted by Boon as pieces of tent panels from Roman army tents. He claims an early date for the tent panels and considers the "intriguing, if romantic, notion that ... [this is a piece]...of one of the very tents which, more likely than not, sheltered soldiers of Agricola's putative task force in A.D. 78<sup>5</sup>" (Boon 1975, 61). Further fragments of tent panels, dated to about 90 AD, were found in a well in 1977 (Boon 1985). Just such tents would have been used at Ysgol yr Hendre and this camp would have left few archaeological traces other than the ovens.

It is possible that more ovens may have been present to the east and west of the ones found. The two ovens excavated in plot B could indicate a more extensive second group north of the main area, although the dates do suggest that these are probably contemporary with the plot A ovens. The geophysical survey of plot B (figure 2) does not show any anomalies that might be ovens but they proved surprisingly difficult to detect by geophysics where the survey was tested in the excavated areas. A collection of anomalies recorded as PRN 31080 may possibly indicate a group of ovens but this is impossible to determine without excavation.

The field to the east of plot A was investigated in 2011 by Archaeology Wales. Forty three evaluation trenches were dug, none of which revealed features similar to the ovens on the Ysgol yr Hendre site (Chris E Smith, Archaeology Wales, pers. comm.). A pit containing burnt earth was found in trench 30 close to the original site of Tyddyn Pandy, but this appears simpler than the ovens and may have been a simple corn drier associated with the cottage. This may indicate that few or no ovens continue into this field but more extensive work would be needed to prove this.

<sup>&</sup>lt;sup>5</sup> See Hanson (1987) for the re-dating of Agricola's governorship since Boon was writing

Despite the trenches being distributed throughout the field no large ditch suggestive of a Roman camp was identified. However the evaluation did recover Roman pottery from three trenches in the north-eastern corner of the field. The pottery probably dates to the late 1st to early 2nd century AD, i.e. of the same date as the pottery on the Ysgol yr Hendre site. The pottery was not associated with any features but may indicate a focus of activity of this period about 100m east of plot A. Whether the pottery from the Ysgol yr Hendre site came from this eastern area or from the use of the ovens is unclear but it does provide further evidence of activity in the early years of the Segontium in this area to its east.

#### 10.2.3. Corn drier and other medieval activity

Although it was somewhat disturbed the form of feature [137] suggested a corn drier. The stratigraphy showed it to be later than the cemetery and the radiocarbon dates confirmed this. The two dates (cal AD 1050–1260 (SUERC-42596) and cal AD 1220–1280 (SUERC-41961)) were similar but not statistically consistent suggesting some mixing of material, perhaps indicating that the corn drier had been used over a prolonged period or at different times. The corn drier seems to have been in use in the 13<sup>th</sup> century AD and possibly earlier as well.

Corn driers are required both to preserve grain and to allow easier milling. They are particularly important where oats are the main crop as these tend to be picked under ripe and then require drying (McKenna, section 8.2.2. Analysis of the assemblage from gully [5007]). Corn driers can also be used to encourage malting of barley. Most of the identifiable grain from feature [137] was oats but there was also barley, so malting might have been a possibility. 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). They are often keyhole or dumb-bell shaped, and tend to be built into banks and slopes (O'Sullivan and Downey 2005). Simple pit driers, either lined or unlined, are often dated to the medieval period. A partially stone-lined corn drier at Cefn Du, Anglesey was dated to cal AD 1000-1280 (Wk-9275) (Cuttler *et al* 2012). A corn drier at Graeanog, Clynnog was dated between 880-1160 cal AD (CAR-934) to 1040-1280 cal AD (CAR-932) (Kelly 1998, 132), and one at Parc Bryn Cegin, Llandygai to between *cal AD 880-1160* and *cal AD 1040-1350* (Kenney 2008, 108). The dates from Ysgol yr Hendre fit quite comfortably in this range. It seems likely that the medieval expansion of the use of corn driers was related to the increase in importance of oats in this period, so that more of the grain produced required drying.

The amount of grain in a drier is generally related to accidents during drying as the grain would not be burnt when the process went to plan, unless some chaff was used to light the fire. The scarcity of grain in feature [137] may indicate that drying was successful. It had a long flue that should have kept sparks from the fire from setting light to the drying grain and it seems that this functioned well. The feature was not very well-preserved and it may also be that charred plant remains were not well preserved because of the disturbance.

If the ditches [156] and [158] were medieval the corn drier would have been positioned at the edge of a field. The slightly curving north-eastern end to ditch [158] could indicate an entrance through the boundary allowing access to the corn drier. However, as discussed above ditches [156] and [158] probably pre-date the corn drier and their apparent spatial relationships may be purely accidental (see section 7.4.2. Possible early field boundaries).

The radiocarbon dating showed that feature [137] was not the only medieval feature on the site. Pit [190] produced two statistically consistent dates (cal AD 1040–1215 (SUERC-41952) and cal AD 1025–1170 (SUERC-41953). This pit was therefore probably not contemporary with the corn drier, but may have not pre-dated it by many years. The charred plant remain assemblage from pit [190] was larger than from the corn drier but generally similar with oats dominant but barley also present. No burning was recognised in pit [190] nor did the large stones it contained appear to be suitable for lining stones. Although there was a fairly high charcoal content in the fill this did not form a coherent layer as would be expected from a fire in the pit. It would be tempting to interpret this feature as a simpler form of corn drier but these factors suggest that it was not. Whatever the function of pit [190] it does show that there was medieval activity; as possibly does pit [205]. The charred plant remains assemblage from this was similar to that in pit [190], making it possible that the two pits were roughly contemporary.

The charred seed assemblages in corn driers can provide valuable evidence of arable regimes. At Parc Bryn Cegin the corn drier contained some barley, naked wheat and rye but the charred cereal assemblage was dominated by oats. It also contained weed seeds, the most numerous were of corn marigold and brome, amongst

other species indicating fields on acid and sandy soils. Evidence from elsewhere in Wales suggests that oats were the main cereal of the medieval period, and remains of this crop has been found in other medieval corn driers e.g. at Collfryn, Llansantffraid Deuddr, Powys (Jones and Milles 1984).

The corn drier and pit [190] contained relatively small assemblages and a much clearer indication of medieval farming regimes was represented by the assemblage from the gully [5007]. This was not particularly well-dated as one of the radiocarbon dating samples (a garden pea) was probably intrusive. This dated to 1525-1660 cal AD (SUERC-41966), while an oat grain dated to 990-1120 cal AD (SUERC-41967). It is assumed that the latter represents the date of the deposit as the assemblage was dominated by oats and there was only the single pea. Although untested by comparison to another date if the early date is accepted as an approximate date for the feature it shows that the gully dated to considerably earlier than the corn drier or pit [190]. However the charred plant assemblage shows that oats had become the dominate cereal type by this date. The mix of grains suggests that oats were planted as the main crop and small amounts of wheat and barley were included as crop weeds, as well as wild grasses. The ability of oats to grow on poorer soils may indicate that crop cultivation expanded out of the best arable areas in this period. However it is more likely that it represents the use of a more appropriate crop for the local conditions as much of the soil in north Wales is acid and of fairly low fertility, the soils are often heavy and water-retentive and there are low summer temperatures. Oats do better under these conditions than other cereal crops and their adoption would presumably have increased yields (McKenna, section 8.2.2. Analysis of the assemblage from gully [5007]).

The need to dry oats before storage or milling and the quantity of grains present in the sample perhaps suggests that the deposit in gully [5007] is most likely to have been from an accident during drying. Cooking or other processes are less likely to result in the charring of so much grain even when something goes wrong. At 15m long the gully is far too long to be the flue of a corn drier and there was no evidence of a drying chamber. Feature [5008] was largely truncated but appeared to be a slight gully like [5007], with no evidence of *in situ* burning. Pit [5065] was a recent feature and not part of [5008], so it is hard to interpret [5008] as a corn drier either. Radiocarbon dates show that the corn drier in plot A was much later than [5007] so it must be concluded that the origin of the burnt grain was not found during the excavations. Presumably [5007] was the boundary ditch to a small enclosure and was a convenient dumping ground for the charred grain. However it seems unlikely that the charred material would have been transported far before dumping so it is possible that there are the remains of a medieval corn drier somewhere under the unexcavated parts of the site, possibly just the northwest or south-east of [5007].

If it can be assumed that gully [5007] was the boundary to a small enclosure or the corner of a field, gully 5008 might have been part of the same feature, making an enclosure or pen most likely. This, like the other medieval features, seems to have been quite isolated, with no hint of how it might have related to other fields or settlement. However the grain that it contained does give a clear indication of changing farming practices and the adoption of oats as the major crop.

The identification of other ditches as medieval field boundaries is difficult. Ditches are difficult to date and pottery, charred plant remains and other finds might erode into the fill or be dumped in as the ditch is infilling and be unrelated to the time of its digging and use. Certainly several ditches found on the site pre-date the current field pattern, which has been much the same since the 18<sup>th</sup> century. The north-south ditch [154] has been broadly dated because it was cut by the medieval corn drier [137] and so this ditch appears to pre-date the 13<sup>th</sup> century AD. As it cut the mortuary enclosure [152] the ditch was presumably in use somewhere between the 7<sup>th</sup> and 13<sup>th</sup> centuries. The few sherds of Roman pottery from ditch [270] cannot be held to date this ditch to the Roman period and it could be contemporary and once possibly joined to ditch [154], but this cannot be proved.

The relationship of [154] to other early ditches was unfortunately unclear but it is possible that [154] cut ditch [158] and the stony layer (312). The alignment of ditch [158] and its precursor [156] were exactly parallel to the mortuary enclosure [152] suggesting that the latter was visible when the ditches were dug. Following this alignment meant that ditch [158] cut along a line of graves, so while the enclosure might have been visible its significance and the presence of the graves may have been forgotten. It appears that ditches [156] and [158], with the stony deposit (312) possibly representing a trackway to their northern side, formed a field boundary established when the mortuary enclosure was still an upstanding earthwork monument. Ditch [154] seems to represent a complete alteration of the field boundaries after the square barrow had been levelled by ploughing as the latter ditch disregarded the enclosure, cutting through it. As corn drier [137] cut ditch [154] it seems that all these ditches pre-dated the corn drier and cannot be used to indicate the field boundaries of the 13<sup>th</sup> century. However there was enough doubt about all these relationships that no firm conclusion can be drawn.

Gully [5007] could have been associated with either ditch [154] or ditch [156/158], both of which appear to have extended northwards. Equally these could all belong to entirely different periods.

None of the early ditches found during excavation can be seen on the available aerial photographs, even the parched 2006 RCAHMW photographs, so there seems little opportunity to use this medium to try and trace the boundaries and detect a wider field system. No ditches are reported from the evaluation trenching in the field to the east, but this work has not yet been published (Chris E Smith, Archaeology Wales, pers. comm.), and further work in this area might reveal more about these early field systems.

The geophysical survey also failed to pick up much that can be associated with the medieval fields. Boundary PRN 31077 in plot B (figure 2) was clearly shown on the later maps and is quite modern. However the curving linear anomaly (PRN 31079) also in plot B is quite similar to gully [5007], but it is impossible to tell from the survey whether this might be of the same date.

## 11. THE CHANGING LANDSCAPE: A SUMMARY

Changes in vegetation can be best studied through pollen analysis, but no suitable deposits were discovered on the present site, however the charred plant remains can be used as a rough indicator of local vegetation. It is likely that communities collected firewood from the closest available wooded area (McKenna, Appendix III.7: An assessment of the palaeoenvironmental potential), so the composition of the local woodland must be reflected in the charcoal remains to some extent. There are bound to be considerable collecting and taphonomic biases, particularly the choice of certain species that produce good fuel wood, but if the charcoal is taken to merely indicate a presence of species rather than woodland composition then a very general impression can be gained (McKenna, Appendix III.7: An assessment of the palaeoenvironmental potential). Charred cereal grains and other seeds can add to this, providing some hints of changes over time.

In the Neolithic period the area was probably covered in mixed oak woodland. Hazel was easily available and was selected for firewood, so perhaps was coppiced. However the presence of willow/poplar hints that there was wetter fen carr woodland in the area, probably along the banks of the Seiont, which flows about 300m east of the site. There were no cereal grains from the Neolithic pit on the site. Evidence from elsewhere shows that there was arable agriculture in north Wales at this date and earlier but this site does not provide evidence for cereal growing in the immediate vicinity.

In the Roman period the mixed deciduous woodland was still prominent, with oak, elm and ash amongst the woodland trees and fen carr presumably along the river. Some of the charred grains found in the Roman ovens were intrusive from later activity, but one grain was Roman in date, indicating arable farming in the vicinity. The increase in rural settlements during the Iron Age and Roman period would suggest large areas of woodland were cleared for agriculture during this time.

The charcoal from the early medieval mortuary enclosure was purely of hazel. It is generally assumed that woodland expanded in the post-Roman period but perhaps this indicates that some of this expanded woodland was managed and hazel was particularly easy to collect because it was coppiced. The site produced no firm evidence for arable cultivation in this period but it would be unlikely to find such evidence in a cemetery.

In the medieval period alder is present as a fuel for the first time. This could represent an increased dominance of alder, but is perhaps more likely to suggest that the woodland was mainly restricted to the carr by the river and that fuel wood collection was restricted to that area. The fairly high proportion of willow/poplar and lack of oak from gully [5007] perhaps supports this and indicates that woodland might have been receding by the start of the high medieval period. The fields were also changing with wheat and barley being replaced by oats, better suited to the climate and presumably more productive.

The 1832 Vaynol Estate map (Vaynol Papers 6069) indicates scrubby woodland by the river, presumably the same fen carr that is hinted at by the charcoal assemblages and much of this woodland still survives, while all the rest of the land has been denuded for farmland.

Against the background of the changing vegetation, and the cause of most of those changes, the human history of the site was played out. The scarcity of prehistoric evidence cannot be taken to prove a lack of settlement in the area. There are few Neolithic chambered tombs known from Arfon, especially compared with Anglesey (Smith 2002, 2003), but there is no reason why this area was less favourable for occupation in the Neolithic than the island. The late Neolithic henge and cursus complex at Llandygai near Bangor (Lynch and Musson 2001)

indicate a population of sufficient size and organisation to provide surplus labour for their construction. The Neolithic pit found during the present excavations is indicative of this presence, as are the Neolithic stone axes found during previous excavations at Segontium.

The Bronze Age is represented in the area by a small number of burials including the urn burial in Maes y Barker near Ysgol y Hendre, but no evidence of the Bronze Age was recovered from the present site, nor was there any evidence found for later prehistoric occupation. Iron Age and native Romano-British sites are very rare near Caernarfon and only become common in the hills, but this is almost certainly due to problems of survival and discovery. Roman period roundhouse settlement was excavated at Bush Farm near Felinheli (Longley *et al* 1998) and it is likely that there were many other such settlements in the area now levelled and obscured by ploughing.

The area became historically prominent from *circa* 77 AD when Segontium fort was built. A *vicus* (civilian settlement) developed around the fort, a cemetery was established and roads were built across the coastal plain. The evidence suggests that a Roman military unit camped on the site, during and probably in direct connection with the construction of the fort. The camp may have been defended by a palisade of posts lashed together or set in a turf rampart (Davies and Jones 2006, 25-27), leaving no archaeological trace of the defences.

While the *vicus* extended to the west, north and south of the fort there is little evidence of it to the eastern side, where the presence of Roman burials suggests that this area was not occupied. The mithraeum in the shallow valley to the east of the fort also suggests that the east was reserved for funerary and ritual purposes.

Evidence from archaeological excavations reveals a decline in the occupation of the *vicus* after the  $2^{nd}$  century AD, though the fort, unusually within Wales, was continuously occupied up to 393AD, when it is thought the last of the troops were withdrawn to the continent. The date of the founding of the inhumation cemetery is not known – but even if it overlapped with the final occupation of the fort, it certainly continued in use after that date, implying the existence of an adjacent settlement which lay outside the fort, but somewhere in the near vicinity. In the mid-11<sup>th</sup> century, with the advent of the Norman invasions and the construction of a motte at Caernarfon, the focus of settlement shifted to the north. However by this time the site of the church at Llanbeblig must have been recognised, where perhaps the grave of St Peblig was commemorated. The construction of the castle and borough after 1283 left the parish church isolated from medieval settlement and in a rural setting until the growth of housing in the  $20^{th}$  century once more placed it in an urban environment. The cemetery at Ysgol yr Hendre was by this time long forgotten, as is any knowledge of the settlement which must have accompanied it.

The present study has shown the extent and importance of archaeology that can be found outside the main areas of Roman or medieval activity in Caernarfon, and raises the importance of this area to the east of the fort. The geophysics carried out for this project shows that there could be further features under the playing fields north of the new school, which have not yet been explored. The importance of careful exploration of the fields to the east of this site is clear, especially as the evaluation of this area has indicated Roman activity here, but there are wider areas that might repay investigation if the opportunity ever arises. Llanbeblig church is possibly located on or close to the site of early medieval settlement and any opportunity to investigate around the church or within the old cemetery should be taken as even small trenches might reveal important clues. In the new cemetery across the road recent grave digging has not lead to reports of more Roman cremations. This may be due to the use of mechanical diggers to excavate graves. As the extent of the Roman cemetery here has never been fully defined it would be advantageous to maximise the recovery of any information possible within this area. If cremation burials were discovered in the future they could be subjected to full analysis and even more information could be obtained.

Although much of the area around the present site is under housing this might not necessarily mean that all archaeology has been destroyed in this area. The gardens to the west of the early medieval cemetery discovered in this project could contain the continuation of the cemetery and trial trenching in these gardens might reveal the location of more graves. Also it is not impossible that future work might reveal traces of ditches of the proposed Roman construction camp. All possibilities should be held in mind if further development is undertaken in this area or other opportunities arise.

## 12. PUBLICATION AND PRESENTATION

The present report forms the basis of the presentation of the results of this project and will be made available on the internet through the GAT website and through the Royal Commission on the Ancient and Historical Monuments of Wales Coflein website, as well as through the Gwynedd Historical Environment Record (HER). A condensed version of the report will be published in Archaeologia Cambrensis, the journal of the Cambrian Archaeological Association. A more popular version of the results will be made available on the GAT website and a press release will be sent out to disseminate the excavation results more widely than just the academic community.

However with a school on the site of the excavation the main focus for wider dissemination and use of the excavation results has been Ysgol yr Hendre. The GAT outreach team have been working with the school to create activities around the archaeology (plates 28 and 29). The following work has been undertaken so far:-

- September 11<sup>th</sup> 2012 Meeting with headmaster to agree which classes to work with and nature of activity to be undertaken.
- October 15<sup>th</sup> 2012 Meeting with senior class teacher to brief teacher on the site and agree initial programme of work and first workshop date.
- October 2012 School teacher worked with pupils to generate their questions about the site. Questions given to GAT staff.
- November 13<sup>th</sup> 2012 Delivered two workshops with two year 5 classes (age 9-10yrs). Started to
  answer two of the pupils questions a) What was here before we built the school? and b) what was found
  under the school? We used recent maps to find out what was in the area immediately before the school.
  We then introduced the reasons for archaeological work that had been undertaken and used the diagram
  of the archaeological features to start to discuss the archaeological discovered.
- November 27<sup>th</sup> 2012 Delivered a second workshop to the two year 5 classes, recapping what learnt in the previous session and moving on to look for patterns in the diagrams of features found. Discussed patterns, anomalies and linked the features to a simple timeline. Pupils then generated their own questions about the archaeology and the archaeological process.
- Teachers were given map resources to explore land-use in the area in the 150yrs prior to the construction of the school with pupils in order to start to answer the pupils question (What use did they make of the land?). Some ideas for 'scientific' experiments that could be undertaken to illustrate concepts relating to the archaeology were discussed with the class teachers. Agreement was made to use 'PREZI' (a cloud-computing-based presentation software) to record and present the pupils work and their knowledge gained.

Work will continue to allow the children to present their learning creatively and to support the teachers to explore the questions raised.

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#### Maps

Ordnance Survey 25 inch County Series maps Caernarvonshire sheet XVI.1 (1889 and 1914) Ordnance Survey 25 inch County Series maps Anglesey sheet XXV.4 (1888 and 1918) Ordnance Survey 1:10,560 map sheet Caernarvonshire XV NE (1938) Ordnance Survey 1:10,000 map sheet SH46SE (1979) Ordnance Survey 1:2500 map sheet SH4862 (1965 and 1983) Tithe map for the parish of Llanbeblig in the County of Caernarvonshire 1842. Tithe Apportionment Schedule for the parish of Llanbeblig in the County of Caernarvonshire 1842. Vaynol Papers 4056: A survey of Vaenol Estate, the property of Thomas Assheton Smith Esq, vol. 2 (1777) Vaynol Papers 6069: A survey of Vaynol Estate, the property of T Assheton Smith Esq, vol. 2 (1832)

Aerial Photographs

Verticals

CPE/UK/2525, frames 4147-4148, date 24/03/1948 CPE/UK/2615, frames 3028, 3036-3038, 4027-4029, date 26/04/1948 Lib no. 4818, CPE/UK/2525, frame 4147, date 24/03/1948 Lib no. 4826, CPE/UK/2615, frame 2615, date 26/04/1948 Lib no. 5015, 58 RAF 394, frame 5043, date 27/03/1950 Lib no. 6627, OS 66 105, frame 477, date 29/05/1966 Lib no. 71110, OS 71 212, frame 140, date 12/05/1971 Lib no. 8512, 1 PRU RAF 0740, frame 0241, date 08/05/1985 Lib no. 8606, JA Story, frame 51/86 102, date 01/10/1986

#### **Obliques**

Tyddyn Pandy barrow NPRN 404650, AP\_2006\_3485 Tyddyn Pandy barrow NPRN 404650, AP\_2006\_3486 Tyddyn Pandy barrow NPRN 404650, AP\_2006\_3487 Tyddyn Pandy barrow NPRN 404650, AP\_2006\_3488 Tyddyn Pandy barrow NPRN 404650, AP\_2006\_3489

## APPENDIX I: QUANTIFICATION OF RESULTS AND FINDS LIST

**Quantification of results** This section itemises the field records produced and the finds and ecofacts recovered.

Phase III	
Contexts sheets	95
Context registers	7 sheets
Trench sheets	10
Drawing register	6 sheets
Sample register	1 sheet
Photo record sheets	5
Digital photographs	226
Field drawings	18 sheets
Phase IV	
Contexts	456
Context registers	23 sheets
Field drawings	254 drawings on 80 sheets
Drawing register	254 drawings on oo sheets 24 sheets
Digital photos	24 500005
Excavation	889
Watching Brief	59
Photo record sheets	22
Finds register	2 sheets
Environmental sample register	4 sheets
Phase V	
Contexts sheets	67
Context registers	3 sheets
Drawing register	4 sheets
Sample register	1 sheet
Phase V Contexts sheets Context registers Drawing register Sample register	67 3 sheets 4 sheets 1 sheet

Environmental samples											
Sample type	No. of samples										
Bulk soil	83										

Photo record sheets Field drawings

Digital photographs

Finds									
Material	Period	No of items							
Archaeometallurgical fragments		284							
Bone fragments		36							
Burnt clay pieces		49							
Ceramics	Post- medieval /modern	3							
Ceramics	Roman/possibly Roman	39							
Flint		17							
Glass	Modern/post-medieval	5							
Iron		6							
Other worked stone		7							

7

216

36 drawings on 9 sheets

## Full List of Finds

Find No Context No 24	1 Feature No 022	Fieldwork phase Phase 4	Plot C	Material Ceramic	<b>Period</b> Roman	No of items 3	Weight 12	<b>Description</b> Jar neck in Black-burnished ware.	<b>Notes</b> Jar neck in Black-burnished ware. The angle of the neck suggests a 3rd-4th century vessel. 01 also includes a small wall sherd and a piece of burnt stone.
Find No Context No 44	2 Feature No 009	Fieldwork phase Phase 4	Plot C	Material Ceramic	<b>Period</b> Post-med	No of items 1	Weight 21	<b>Description</b> Clay pipe decorated with Prince of Wa feathers	les
Find No Context No 110	3 Feature No 109	Fieldwork phase Phase 4	<b>Plot</b> A	<b>Material</b> Ceramic	<b>Period</b> Roman	No of items 1	Weight 4.5	<b>Description</b> Sherd of Samian pot	<b>Notes</b> Samian, Form 27, Les Martres-de-Veyre. Martres imports were at their height in the first two decades of the second century, but some potters continued to export after that date. However, the form is unlikely to be later than the middle of the century. A date c.A.D.100-130 seems most likely.
Find No Context No 112	4 Feature No 111	<b>Fieldwork</b> phase Phase 4	Plot A	<b>Material</b> Ceramic	<b>Period</b> Roman	No of items 1	Weight 0	<b>Description</b> A small fragment of samian bowl,	Notes A small fragment of samian bowl, Central Gaulish. There is an internal groove and a depression on the exterior such as if sometimes seen where the rim of a moulded vessel protruded from the mould. In combination, these two features suggest Form 30. c.A.D.120-200.
Find No Context No 271	5 Feature No 270	Fieldwork phase Phase 4	<b>Plot</b> A	<b>Material</b> Ceramic	<b>Period</b> Roman	No of items 1	Weight 3	<b>Description</b> Rim of Samian vessel	Notes Samian, Form 29, South Gaulish. Only the upper, rouletted zone remains. The form went out of production c.A.D.85. The relatively coarse rouletting might suggest a vessel from the later years of production. Probably c.A.D.65-85.
Find No Context No 118	6 Feature No 117	<b>Fieldwork</b> <b>phase</b> Phase 4	<b>Plot</b> A	<b>Material</b> Iron	Period	No of items 1	<b>Weight</b> 49.3	<b>Description</b> Corroded iron slag	<b>Notes</b> Piece of corroded iron in concretion, iron probably sub-circular c 30mmx40mm. Needs X-Ray
Find No Context No 113 Find No	7 Feature No 108 8	<b>Fieldwork</b> <b>phase</b> Phase 4	<b>Plot</b> A	Material Bone	Period	No of items 4	Weight 2	<b>Description</b> Frags of bone	<b>Notes</b> Mammal bone. Small pieces of spongy bone.
Context No 217 Find No Context	Feature No 218 9 Feature	Fieldwork phase Phase 4 Fieldwork	Plot A	Material Ceramic	<b>Period</b> Roman	No of items 1 No of	Weight 0.5	<b>Description</b> Frag of red pot	<b>Notes</b> Small rather abraded sherd of orange-buff pottery. Probably Roman.

No	No	phase	Plot	Material	Period	items	Weight	Description	Notes
231	230	Phase 4	А	Ceramic	Roman?	2	5	Frag of brick	Fragment, probably of brick with stone inclusions and with streaks of yellower clay visible. The piece appears to be hand formed rather than a recent product of more mechanical brick making but a Roman origin is far from certain.
Find No	10								
Context	Feature	Fieldwork			<b>D</b> · 1	No of	*** * * *		
N0 2	NO	Phase 4		Ceramic	Roman	items	1 1	Erag of pot	Notes Samian Form 45 Central Gaulish - c A D 180-200
2		Thase 4	А	Cerainic	Roman	1	11	riag of pot	From base of ploughsoil adjacent to pit [247]
Find No	11								
Context	Feature	Fieldwork				No of			
No	No	phase	Plot	Material	Period	items	Weight	Description	Notes
150	148	Phase 4	A	Ceramic	Roman	3	17.5	Frags of brick or tile	Three possible tile or brick fragment, much abraded. The one (flat) surface which appears to have been external has a concentration of grit. Probably a fragment of Roman brick or
Find No	12 Eastain	T: al dans alla				N			
No	reature	rieldwork	Plot	Material	Period	INO OI items	Weight	Description	Notes
110	109	Phase 4	A	burnt clay	i citou	2	31.5	Possible daub	Coarse fired clay with charcoal and stone inclusions. There are traces of a rounded
									surface. The whole does not seem to be compacted enough for Roman brick and in many
									ways would suit fired daub if it were not that it appears to be fired so hard.
Find No	13 Exet	T: al dans alla				Na af			
No	reature	rieldwork	Plat	Matarial	Period	INO OI itoms	Weight	Description	Notos
110	109	Phase 4	A	Bone	Teriou	1	1.5	Fragment of animal bone	Unidentifiable animal bone.
Find No	14							6	
Context	Feature	Fieldwork				No of			
No	No	phase	Plot	Material	Period	items	Weight	Description	Notes
110	109	Phase 4	А	Unworked		1	10	Non-magnetic. Possibly a fossil	
Find No	15			stone					
Context	Feature	Fieldwork				No of			
No	No	phase	Plot	Material	Period	items	Weight	Description	Notes
147	146	Phase 4	А	Ceramic	Roman	2	36	Mortarium sherd	Mortarium in off-white fabric with black and some red trituration grits. Somewhat
									thinness of the sherds suggests a 3rd to 4th century vessel. Two joining fragments
Find No	16								
Context	Feature	Fieldwork				No of			
No	No	phase	Plot	Material	Period	items	Weight	Description	Notes
262 Eind Na	249	Phase 4	А	Iron		1	3.5	Nail, badly corroded	x-rayed and presumably returned because sf30 was returned but couldn't be found 15/02/12
FING NO Context	17 Feature	Fieldwork				No of			
No	No	phase	Plot	Material	Period	items	Weight	Description	Notes
199	190	Phase 4	А	Ceramic	Roman	1	16	Frag of Black-burnished ware	Bowl wall in Black-burnished ware. The exterior is abraded thus removing any
									indication of decoration which might have made it possible to narrow the date range.
E. IN	10								As it is, the piece could date from any time from the late 1st to the 4th century.
Find No Context	18 Footure	Fieldwork				No of			
No	No	nhase	Plot	Material	Period	items	Weight	Description	Notes
0	0	Phase 4	0	0		0	0	Find 18 moved to general sample ba	g

Find No Context No 327	<b>19</b> <b>Feature</b> <b>No</b> 270	<b>Fieldwork</b> <b>phase</b> Phase 4	Plot A	Material Ceramic	<b>Period</b> Roman?	No of items 2	Weight 0	<b>Description</b> Frag of red pot	<b>Notes</b> Two very small and abraded fragments of pottery in pink fabric. With sparse grits. A Roman date is possible but far from certain.
Find No Context No 327	<b>20</b> Feature No 270	<b>Fieldwork</b> <b>phase</b> Phase 4	Plot A	<b>Material</b> Ceramic	<b>Period</b> Roman?	No of items 3	Weight 11	<b>Description</b> Frag of red pot	Notes Wheel-thrown jar or flagon in orange fabric with fine sand-like inclusions and some clay pellets. Two joining fragments and one other.
Find No Context No 101	21 Feature No	<b>Fieldwork</b> <b>phase</b> Phase 4	<b>Plot</b> A	Material Ceramic	<b>Period</b> Modern?	No of items 1	Weight 274	<b>Description</b> Brick fragment	<b>Notes</b> Fragment, probably of brick with plentiful grit and stone inclusions. No external surfaces remain but the fabric looks too coarse to be a standard Roman one and a more modern origin seems more likely.
Find No Context No 362	<b>22</b> <b>Feature</b> <b>No</b> 361	<b>Fieldwork</b> <b>phase</b> Phase 4	<b>Plot</b> A	Material Ceramic	<b>Period</b> Roman?	No of items 1	Weight 0	<b>Description</b> Frag of orange pot	<b>Notes</b> A small fragment of pottery containing plentiful rounded grits and some mica. No external surface remains. A Roman date is far from certain.
Find No Context No 368	<b>23</b> Feature No 361	<b>Fieldwork</b> <b>phase</b> Phase 4	Plot A	Material Knapped stone	<b>Period</b> Prehistoric	No of items 1	Weight 0	<b>Description</b> Flint flake	<b>Notes</b> Secondary flake fragment of light grey/mid grey mottled pebble flint. Tip fragment with trampling edge damage. A broken struck flake but the damage to its edge suggest it may have been incorporated in its context by chance
Find No Context No 429 Find No	24 Feature No 428 25	<b>Fieldwork</b> <b>phase</b> Phase 4	Plot A	Material Ceramic	<b>Period</b> Roman	No of items 1	Weight 1.5	<b>Description</b> Frag of Samian	<b>Notes</b> Samian cup, probably form 27, South Gaulish. C.A.D.70-110.
Context No 466 Find No	Feature No 465 26	Fieldwork phase Phase 4	Plot A	Material Bone	Period	No of items 1	Weight -1	<b>Description</b> Frag of burnt bone	<b>Notes</b> Animal bone. Post-cranial- prob. Long bone frag. Sh/gt size.
Context No 454	Feature No 455	Fieldwork phase Phase 4	Plot A	<b>Material</b> Ceramic	<b>Period</b> Roman	No of items 3	Weight 2	<b>Description</b> Frags of red pot	Notes Two sherds (one broken in half) from two separate vessels: -A smooth orange-red fabric with a grey core. The fabric is slightly micaceous and contains sparse fine sand, small ?clay pellets and some small quartz. A Roman date is likely. -Broken in two). An orange-red fabric with plentiful gritty inclusions. One side seems to
Find No Context No 319	<b>27</b> <b>Feature</b> <b>No</b> 318	<b>Fieldwork</b> <b>phase</b> Phase 4	<b>Plot</b> A	Material Ceramic	<b>Period</b> Roman	No of items 1	Weight 2.5	<b>Description</b> Sherd of burnt pot.	<b>Notes</b> A sherd burnt brown in a fabric with plentiful clay and sand inclusions and some larger inclusions some of which have leached out. Peter Webster considers it "Probably Roman" but it is not impossible that it is Neolithic.

Find No Context No 259	<b>28</b> <b>Feature</b> <b>No</b> 260	Fieldwork phase Phase 4	Plot A	Material Knapped stone	Period	No of items 1	Weight 0	<b>Description</b> Flint flake (probably unworked).	<b>Notes</b> Primary flake of mid-grey-brown pebble flint. Pronounced bulb. Probably an accidental
Find No Context No 201	<b>29</b> <b>Feature</b> <b>No</b> 202	<b>Fieldwork</b> phase Phase 4	Plot A	<b>Material</b> Ceramic	<b>Period</b> Roman?	No of items 3	Weight 1.5	<b>Description</b> Sherds of pot.	Notes Three small fragments from at least two separate vessels: -A hard light red fabric with some quartz inclusions. -Two small rounded fragments with plentiful sandy inclusions. Neither fabric is certainly Roman.
Find No Context	30 Fosturo	Fieldwork				No of			
No 282	No 281	phase Phase 4	Plot A	Material Iron	Period	items	Weight 0.5	<b>Description</b> Tip of a nail	Notes
Context	51 Feature	Fieldwork				No of			
No 213	No 212	phase Phase 4	Plot A	<b>Material</b> Other worked stone	Period	items 1	Weight 1	<b>Description</b> Gravel pebble, possibly incised to use as a bead.	<b>Notes</b> The pebble is a small well-rolled naturally shaped gravel pebble of dark, hard rock, possibly chert (D. Jenkins, pers. Com.). It has not been artificially shaped but is a natural slightly flattened sphere, 7mm dia. And 5mm deep. It has two slight incised holes, one in each flattened face. The holes are approx. 1.5mm deep and slightly conical with rounded bases so appear to have been artificially incised as if attempting to create a bead. However, the holes are not exactly aligned with each other, face to face, and it is unusually small for a pebble bead so its identification remains somewhat suspect. The incisions are so small in diameter that, if they are man-made, a metal point must have been used, not a flint point, which would have created a wider, conical hole.
Context	Feature	Fieldwork				No of			
<b>No</b> 243	<b>No</b> 237	<b>phase</b> Phase 4	Plot A	Material Knapped stone	<b>Period</b> Prehistoric	items 2	Weight 1.5	<b>Description</b> Flint flakes.	Notes           SF 32-1. Tertiary blade-flake of light grey flint. Neat, no platform, probably punch-struck.           28x12x5mm.           SF 32-2. Small tertiary chip of fresh, translucent dark grey flint. Probable fragment from the edge of a core. (9)x11x3.5mm.
									The types of flint match those from context (322), pit [318], suggesting that they come from an associated activity
Find No Context	33 Feature	Fieldwork				No of			
<b>No</b> 322	<b>No</b> 318	<b>phase</b> Phase 4	Plot A	Material Knapped stone	Period Late Neolithic	items 13	Weight 10.5	Description Flint flakes/debitage from sample 85 (4 flakes, 4 flake frags, 5 chips)	Notes SF 33-1. Primary flake of buff mottled flint partially rolled pebble flint. Possibly anvil- struck. 39x20x7mm. SF 33-2. Snapped-off tip fragment of a thin broad secondary flake. Similar flint to 33-1. (26.5)x20x3mm. SF 33-3. Butt fragment of a thin, broad tertiary flake. Similar flint to 33-1. (15)x20x3mm. SF 33-4. Narrow, thick secondary blade-flake from pebble. Similar flint to 33-1. 26x12x5mm.
									SF 33-5. Small, narrow thick secondary flake from pebble of buff, cherty flint. No platform, possibly anvil-struck. 30x8x8mm.

SF 33-6. Small, irregular secondary chip from pebble. Similar flint to 33-1. 20x11x4mm.
SF 33-7. Small butt fragment of a primary flake, from a well-rolled pebble. No platform, possibly anvil-struck. Similar flint to 33-1. (14)x15x3mm.
SF 33-8. Small tip fragment of a tertiary flake from similar flint to 33-1. 11x10x2mm.
SF 33-9. Small tertiary chip. No platform. Similar flint to 33-1. 14x9x2mm.
SF 33-10. Small tertiary chip. Scalar, no platform. Similar flint to 33-1. 16x7x2mm.
SF 33-11. Small tertiary chip. Scalar, no platform. Similar flint to 33-1. 8x10x2mm.
SF 33-12. Small, thin, tertiary flake of fresh, mid-grey flint. No platform. With a probably accidental or possibly deliberately retouched small notch on one edge. 16x12x2mm.
SF 33-13. Small secondary scalar chip from fresh, mid-grey flint with thin creamy cortex. Scalar. 9.5x11x2mm.

Find No Context95555555ContextPaisestPit PitestMaterial APeriodNo of itomsDescription Pieces of burnt clay from oven.Course sand bound by clay grade material which is pink which or surface but mat internally. Probably manganese pan277279Phase 4ABurnt clayPeriod6Course sand bound by clay grade material which is pink which or surface but mat internally. Probably manganese pan270709Phase 4ABoneNo of totDescriptionCourse sand bound by clay grade material which is pink which or surface but mat internally. Probably manganese pan109109Phase 4ABoneNo of totDescriptionColationed limb bone 10 mm. Med-lege mammal: probably animat Ereice of burnt bone.1010NoPhase 4ABoneNo of totDescriptionAnimal bone x2 frags small-med mammal. 3 small pieces of burnt tone.1010NoPhase 4ABoneNo of totDescriptionAnimal bone x2 frags small-med mammal. 3 small pieces of burnt tone.1011Phase 4ABonePeriodNo of totDescriptionMaterial1011Phase 4ABonePeriodDescriptionMaterial Pragments of burnt bone.1011Phase 4ABonePeriodNo of totNotes1010Phase 4ABonePeriodDescriptionMaterial Pragments of burnt bone.1010Phase 4A	Context No 240	Feature No 218	Fieldwork phase Phase 4	Plot A	<b>Material</b> Burnt clay	Period	No of items 15	Weight 11.4	<b>Description</b> Pieces of burnt clay from oven.	<b>Notes</b> Coarse sand and gravel to 10mm, bound by salmon-pink/buff clay, which is penetrated by fissures and rounded voids coated with black Mn oxides
Find No36ContextNophasePlotMaterialPeriodNoNoMaterialPeriodNoMaterialPeriodNoMaterialPeriodNoMaterialPeriodNoMaterialPeriodNoMaterialPeriodNoMaterialPeriodNoMaterialPeriodNoMaterialPeriodNoMaterialPeriodNoMaterialPeriodMaterial <th< td=""><td>Find No Context No 277</td><td><b>35</b> Feature No 279</td><td>Fieldwork phase Phase 4</td><td>Plot A</td><td><b>Material</b> Burnt clay</td><td>Period</td><td>No of items 6</td><td>Weight 12.1</td><td><b>Description</b> Pieces of burnt clay from oven.</td><td>Notes Coarse sand bound by clay grade material which is pink/buff on surface but mainly black internally. Probably manganese pan</td></th<>	Find No Context No 277	<b>35</b> Feature No 279	Fieldwork phase Phase 4	Plot A	<b>Material</b> Burnt clay	Period	No of items 6	Weight 12.1	<b>Description</b> Pieces of burnt clay from oven.	Notes Coarse sand bound by clay grade material which is pink/buff on surface but mainly black internally. Probably manganese pan
ContextFieldworkFieldworkVieldworkVieldworkNote19190PhaseABone11Piece of burnt bone.Calcined limb bone 10 nm. Med-lge manmal; probably animal190190PhaseFieldworkVVVCalcined limb bone 10 nm. Med-lge manmal; probably animal190100PhaseFieldworkVVVV101FieldworkFieldworkVVNotes102101PhasePolMaterialPeriod120.5Pragments of burnt bone.Animal bone 24 frags small-med manmal. 3 small pieces of burnt bone.101101PhasePolMaterialPeriod16NotesNotes101101PhasePolMaterialPeriod16NotesNotes101101PhasePolMaterialPeriod16NotesNotes101101PhasePolMaterialPeriod16NotesNotes101101PhasePolMaterialPeriod16NotesNotes101101PhasePolMaterialPeriod16NotesNotes101101PhasePolMaterialPeriod16NotesNotes101101PhasePolMaterialPeriod16NotesNotes101101PhasePolMaterialPeriodNotesNotes	Find No	36								internariy. 1 robuory manganese pair
ContextFeatureFieldworkFeatureFieldworkPioteNote12713PhaseABone0.5Fragments of burnt bone.Animal bone x2 frags small-med mammal. 3 small pieces of burntFind No3	Context No 199 Find No	Feature No 190 37	Fieldwork phase Phase 4	Plot A	Material Bone	Period	No of items 1	Weight	<b>Description</b> Piece of burnt bone.	<b>Notes</b> Calcined limb bone 10 mm. Med-lge mammal; probably animal bone.
ContextFeatureFieldworkNo ofNoNophasePlotMaterialPerioditemsWeightDescriptionMammal bone.201202Phase 4ABone21Fragments of burnt bone.Mammal bone.Find No39ContextFeatureFieldwork-NoNoNotes180176Phase 4ABone21Fragments of burnt bone.Unidentifiable mammal bone.180176Phase 4ABone30.5Fragments of burnt bone.Material180184Phase 4ABone30.5Fragments of burnt bone.Mammal bone, probably animal. Post-cranial fragments 5.10180NoPhase 4ABone30.5Fragments of burnt bone.Mammal bone.101FeatureFieldworkNo101Phase 4ACoranicRoman?	Context No 127 Find No	Feature No 115 38	Fieldwork phase Phase 4	Plot A	Material Bone	Period	No of items 2	Weight 0.5	<b>Description</b> Fragments of burnt bone.	<b>Notes</b> Animal bone x2 frags small-med mammal. 3 small pieces of burnt stone.
ContextFeature PleakFieldworkNo of ItemsNo of itemsDescriptionNotes180176Phase 4ABone21Fragments of burnt bone.Unidentifiable mammal bone.180176Phase 4ABone21Fragments of burnt bone.Unidentifiable mammal bone.Find No40ContextFeatureFieldworkNo ofNotesNotesNoNophasePlotMaterialPerioditemsWeightDescriptionNotes185184Phase 4ABone30.5Fragments of burnt bone.Mammal bone, probably animal. Post-cranial fragments 5-10Find No41CortanicFeatureFieldworkNotesNotesNoNophasePlotMaterialPerioditemsWeightDescriptionMaterialNoNophasePlotMaterialPerioditemsWeightDescriptionNotesFind No41FautureFieldworkNotes163.5Jug handleHandle from a large flagon in smooth off-white with sparse grit inclusions. Th reason why this should not be Roman but it lacks diagnostic featureFind No42FautureFieldworkNo ofNotesFind No42FautureFieldworkNo ofNotesNoNoNophasePlotMaterialPerioditemsKontexKontexKontexKontexKon	Context No 201 Find No	Feature No 202 39	Fieldwork phase Phase 4	Plot A	Material Bone	Period	No of items 2	Weight	<b>Description</b> Fragments of burnt bone.	<b>Notes</b> Mammal bone. 8 small pieces of burnt stone.
ContextFeatureFieldworkNo ofNoNophasePlotMaterialPerioditemsWeightDescriptionMammal bone, probably animal. Post-cranial fragments 5-10185184Phase 4ABone30.5Fragments of burnt bone.Mammal bone, probably animal. Post-cranial fragments 5-10Find No41	Context No 180 Find No	Feature No 176 40	Fieldwork phase Phase 4	Plot A	Material Bone	Period	No of items 2	Weight	<b>Description</b> Fragments of burnt bone.	<b>Notes</b> Unidentifiable mammal bone.
Context       Feature       Fieldwork       No       No       Phase       Plot       Material       Period       items       Weight       Description       Material       Notes         101       Phase 4       A       Ceramic       Roman?       1       63.5       Jug handle       Handle from a large flagon in smooth off-white with sparse grit inclusions. The reason why this should not be Roman but it lacks diagnostic feators         Find No       42       Fieldwork       No       No       Plot       Material       Period       items       Weight       Description       Notes         No       No       phase       Plot       Material       Period       items       Weight       Description	Context No 185 Find No	Feature No 184 41	Fieldwork phase Phase 4	Plot A	Material Bone	Period	No of items 3	Weight 0.5	<b>Description</b> Fragments of burnt bone.	<b>Notes</b> Mammal bone, probably animal. Post-cranial fragments 5-10 mm.
Find No     42       Context     Feature       No     No       phase     Plot       Material     Period       items     Weight       Description     Notes	Context No 101	Feature No	Fieldwork phase Phase 4	Plot A	Material Ceramic	<b>Period</b> Roman?	No of items 1	Weight 63.5	<b>Description</b> Jug handle	<b>Notes</b> Handle from a large flagon in smooth off-white with sparse grit inclusions. There is no reason why this should not be Roman but it lacks diagnostic features.
	Find No Context No	42 Feature No	Fieldwork phase	Plot	Material	Period	No of items	Weight	Description	Notes

Find No 34

113	108	Phase 3	Tr.5	Ceramic	Roman	1	8	Black Burnished potsherd. From T5 in pha evaluation (context 5004), but this context in the phase 4 excavation	ase 3Bowl fragment in Black-burnished ware. The exterior shows=113lattice decoration with angles close to 90°. Probably 2nd century.
Find No	43							1	
Context	Feature	Fieldwork				No of			
<b>No</b> 3006	<b>No</b> 3007	phase Phase 3	Plot Tr.3	<b>Material</b> Burnt clay	Period	items 20	Weight 136	<b>Description</b> Burnt Clay	Notes This is a rather mixed assemblage. Two pieces are simply gravel pebbles detached from the rest, one is a decomposed rock fragment (total 15.8g). 12 pieces (56.5g) are coarse sand-gravel, cemented by a brownish red matrix, with evidence for clast coatings of manganese oxides; these may be entirely natural concretionary materials, although some reddening through burning cannot be excluded. 55.3g (5 pieces) are of a buff-grey coloured clay bearing abundant sand and gravel clasts. This material may be burnt, but does not appear to be a prepared clay. The material is very soft, so if burnt is very low
Find No	501								
Context	Feature	Fieldwork				No of			
N0 5022	N0 5000	phase	Plot	Material	Period	items	Weight	Description	Notes
5025 Find No	5009 502	phase 5	D	IIOII		1	52	Large han of bolt covered in concretion	15
Context	Feature	Fieldwork				No of			
No	No	phase	Plot	Material	Period	items	Weight	Description	Notes
5040	5003	phase 5	В	Ceramic	Roman?	3		3 very small eroded pot sherds	Three sherds of redware severely eroded by soil conditions. The filler is random grit.
	502								Probably Roman.
Find No Context	503 Footuro	Fieldwork				No of			
No	No	phase	Plot	Material	Period	items	Weight	Description	Notes
5038	5005	phase 5	B	Glass	Modern	1	weight	Possible window/glass panel fragment	<ul> <li>Window (?) fragment. Blue/green. Flat fragment with one finished edge in form of triangular moulding. Dimensions 31 x 31mm, thickness 5-2mm.</li> <li>Though found in the fill of an early post-medieval grave, this piece gives every impression of being modern. It lacks bubbles and internally there are slight ripple effects parallel to the finished edge. It is clearly made from soda glass and thus has to be either Roman/early medieval or modern. Flat glass fragments are found commonly on Roman sites where they come from either bottles or windows. Flat window glass is found very occasionally on early medieval sites. This fragment does not belong to any of these categories, and the piece is modern and thus intrusive. The moulding on the edge of the piece would be unusual on a modern window pane and might perhaps have been more appropriate on the edge of a glass panel in a piece of furniture.</li> </ul>
Find No	504								
Context	Feature	Fieldwork	Dlat	Motorial	Dowind	No of	Weight	Description	Notos
5038	5005	phase 5	B	Other worked stone	Roman?	1 ltems	weight	Block of probable building stone	Notes
Find No	505								
Context	Feature	Fieldwork				No of			
<b>No</b> 5041	<b>No</b> 5003	phase phase 5	Plot B	Material Other worked stone	<b>Period</b> Roman?	items 1	Weight	<b>Description</b> Block of probable building stone	Notes
Find No	506			50010					
Context	Feature	Fieldwork				No of			
No	No	phase	Plot	Material	Period	items	Weight	Description	Notes

5056	5004	phase 5	В	Bone		10		small frags of burnt bone	Missing. Recorded as sent to James Rackham.
Find No Context No 5063	<b>507</b> Feature No 5004	Fieldwork phase phase 5	<b>Plot</b> B	<b>Material</b> Other worked	<b>Period</b> Roman?	No of items 1	Weight	<b>Description</b> Block of probable building stone	Notes
Find No	508			stone					
Context	Feature	Fieldwork	Plot	Matarial	Period	No of items	Weight	Description	Notes
5057	5004	phase 5	В	Ceramic	Roman	1	weight	pot sherd poss black burnished ware	Greyware jar sherd, possibly burnt Black-burnished ware or a related fabric. Probably 2nd to 4th century.
Find No	509								
Context	Feature	Fieldwork			<b>D</b> · 1	No of	*** * * *		N. 4
N0 5057	N0 5004	phase 5	Plot B	Ceramic	Roman	items	Weight	Lar fragment	Notes Chin from the wall-base junction of a redware jar with mixed grit filler Roman
Find No	510	phase 5	Б	Ceranne	Roman	1		sui naginent	Chip from the war base junction of a red ware jar with hirked gift inter. Roman.
Context	Feature	Fieldwork				No of			
<b>No</b> 5057	<b>No</b> 5004	phase phase 5	Plot B	Material Ceramic	<b>Period</b> Roman	items 1	Weight	<b>Description</b> small eroded samian sherd	<b>Notes</b> Abraded rim of an East Gaulish bowl of form 31, 31R or its variants. The diameter of c 15cms suggests form 31 C A D 160-220
Find No	511								0.150mb 54660545 10m 51. 0.1 x 5.100 220.
Context	Feature	Fieldwork				No of			
No 5000	No	phase	Plot	Material	Period	items	Weight	Description	Notes
5000	unstrat	phase 5	Б	Glass	r öst-illed	1		glass bottle neck	Apothecaries bottle. Complete finn and neek. Light green blue, Mond pressed. Apothecaries bottles are a long-lived form with their origins in the early post medieval period. The type of glass sf 511 it is made from, and the fact that the piece is mould- pressed, indicate this piece is of nineteenth century date or late. Rim diameter 26m
Find No	512								
Context	Feature	Fieldwork			<b>D</b> · 1	No of	*** * * *		N. 4
N0 5020	N0 5012	phase 5	Plot	Material	Period	items	Weight	Description	<b>Notes</b> Fragment of modern brick. The smooth external surfaces and the possible tubular hole just
Find No	513	phase 5	Б	Ceranne	Widdeni	1		piece of blick of the	clipped on this piece suggests a 20th century product.
Context	Feature	Fieldwork				No of			
No	No	phase	Plot	Material	Period	items	Weight	Description	Notes
5057	5004	phase 5	В	Ceramic	Roman	1		samian ware base sherd	Samian cup base fragment, East Gaulish and probably form 33. Probably c.A.D.160-200.
Find No Context	514 Fosturo	Fieldwork				No of			
No	No	phase	Plot	Material	Period	items	Weight	Description	Notes
5057	5004	phase 5	В	burnt clay		2		small orange sherds	Two lumps of burnt daub
Find No	515	•		·				-	*
Context	Feature	Fieldwork				No of			
No	No	phase	Plot	Material	Period	items	Weight	Description	Notes
5023 Find No	5009 516	Phase 5	В	Burnt clay		4		Burnt clay fragments x4	From sample 502
Context	Feature	Fieldwork				No of			
No	No	phase	Plot	Material	Period	items	Weight	Description	Notes
5023	5009	Phase 5	В	Metalworking debris		17	0	Possible archaeometallurgical residues from sample 502	Mixed assemblage, several pieces of probable manganese crust, two, at least, small vesicular slag fragments, one probable clinker bleb and two pieces of coal. Also several

dense pieces of probable natural iron oxides and other rocks. Find No 517 Feature Context Fieldwork No of No No phase Plot Material Period items Weight Description Notes 5023 5009 Phase 5 В Other worked 3 Fire cracked stone 3 small pieces of heat-cracked stone from sample 502 stone Find No 518 Context Feature Fieldwork No of Plot Weight No No phase Material Period items Description Notes 5041 5003 Phase 5 small corroded iron object, probably nail head From sample 503 В Iron 1 1 Find No 519 Context Feature Fieldwork No of No Plot Material Weight Description No phase Period items Notes 5003 Possible archaeometallurgical residues from 2 blebs of clinker appearance, 1 piece of coal. 2 fragments of possible grey slag, 5041 В Metalworking 27 Phase 5 debris sample 503 remainder probably stone. 2 pieces are thin grey sheet, one with maroon surface, but these resemble burnt iron crusts more than slag - but not certain. Find No 520 Context Feature Fieldwork No of No No phase Plot Material Period items Weight Description Notes 5041 5003 Phase 5 В Burnt bone fragment (very small) Bone 1 -1 From sample 503 521 Find No Context Feature Fieldwork No of Plot Weight Description Notes No No phase Material Period items 5041 5003 Very small glass fragment. Tiny chip from sample 504 Phase 5 В Glass Modern? 1 -1 522 Find No Context Feature Fieldwork No of Plot Weight No No phase Material Period items Description Notes 5041 5003 Phase 5 В Metalworking 56 Possible archaeometallurgical One metallic lustred small spheroid appears like true spheroidal hammerscale. Other slag residues from sample 504 fragments are possible and there are definite fuel ash slags. One dull weathered slag debris spheroid, various other possible slag/possible manganese crust fragments. Find No 523 Feature Fieldwork No of Context No phase Plot Material Period items Weight Description Notes No 5041 5003 Phase 5 В Metalworking 80 Archaeometallurgical residues Assemblage dominated by a wide variety of mainly dark glassy slags - ranging from debris from sample 505 individual rounded blebs to angular fragments. Some are certainly fuel ash slag, but others are less diagnostic. No absolutely certain metalworking residues, but much of this material probably is. Find No 524 **Context** Feature Fieldwork No of No No phase Plot Material Period items Weight Description Notes 5003 5041 Phase 5 В Glass Modern? 1 -1 Very small fragment of glass Tiny chip from sample 505 Find No 525 Fieldwork No of Context Feature No No phase Plot Material Period items Weight Description Notes Find discarded - not bone but a white stone - void 5060 5005 Phase 5 В void Burnt bone fragment (very small) - void 526 Find No Context Feature Fieldwork No of No phase Plot Material Period items Weight Description Notes No 5056 5004 Phase 5 В 0.5 Bent tip of nail From sample 508 Iron 1

Find No Context No 5056	<b>527</b> <b>Feature</b> <b>No</b> 5004	Fieldwork phase Phase 5	Plot B	<b>Material</b> Glass	<b>Period</b> Modern?	No of items 1	Weight -1	<b>Description</b> Very small glass fragment	<b>Notes</b> Tiny chip from sample 508
Find No	528								
Context	Feature	Fieldwork				No of			
No	No	phase	Plot	Material	Period	items	Weight	Description	Notes
5056	5004	Phase 5	В	Bone		9	1	Burnt bone fragments	From sample 508
Find No	529								
Context	Feature	Fieldwork				No of			
No	No	phase	Plot	Material	Period	items	Weight	Description	Notes
5056	5004	Phase 5	В	Burnt clay				Burnt clay	From sample 508
Find No	530								
Context	Feature	Fieldwork				No of			
No	No	phase	Plot	Material	Period	items	Weight	Description	Notes
5056	5004	Phase 5	В	Metalworking debris		33		Archaeometallurgical residues from sample 508	Various small fuel ash-like blebs, one 2mm diameter vesicular slag sphere apparently containing sand grains, slag blister with metallic lustre and 'lumpy' surface cf. clinker and other rather undiagnostic pieces, as well as rock and possible concretion fragments
Find No	531								
Context	Feature	Fieldwork				No of			
No	No	phase	Plot	Material	Period	items	Weight	Description	Notes
5067	5007	Phase 5	В	Metalworking debris		70		Archaeometallurgical residues from sample 509	Several blebs and fragments of probable slag and clinker, 3 pieces of coal, one piece of rust, remainder mainly natural
Find No	532								
Context	Feature	Fieldwork				No of			
No	No	phase	Plot	Material	Period	items	Weight	Description	Notes
5067	5007	Phase 5	В	Slag		1		Single small piece of slag from sample 50	9 A fragment of a fuel ash slag. A complexly rounded, blebby, piece with tan surface locally. Shows various pale clasts embedded in dark glass, one of which is broken and is

is bloated and foliated. This suggests, but does not prove the piece is clinker.

## APPENDIX II: LIST OF SPECIALISTS

#### **Conservation and x-rays**

Phil Parkes Cardiff Conservation Services Conservation laboratory attached to Cardiff University

## **Radiocarbon dating**

SUERC Radiocarbon Laboratory East Kilbride, Glasgow

#### **Radiocarbon advice and analysis** Derek Hamilton

SUERC Radiocarbon Laboratory

## **Roman pottery**

Peter Webster 8 Cefn Coed Avenue, Cyncoed Cardiff CF23 6HE (freelance specialist formerly of Cardiff University)

## Glass

Hilary Cool 16 Lady Bay Road, West Bridgeford, Nottingham NG2 5BJ (freelance specialist)

## **Pyrotechnical residues**

Dr Tim Young GeoArch: geoarchaeological, archaeometallurgical & geophysical investigations 54 Heol y Cadno, Thornhill, Cardiff, CF14 9DY

## Animal bone

Dr Nora Bermingham 7 St Augustine's Avenue, Prince's Road, Hull, HU5 2QU (Free-lance animal bone specialist)

## Lithics and stone objects

George Smith Gwynedd Archaeological Trust Craig Beuno Garth Road Bangor In house lithics specialist

# Charcoal and other charred plant remains

Rosalind McKenna 4 Castle Cottages Carrbrook Stalybridge SK15 3QE (freelance specialist)

## **APPENDIX III: SPECIALIST REPORTS**

## Appendix III.1: Roman pottery Peter Webster

# Diagnostic sherds by fabric and date

1. Samian

G2060.03	Context (110), fill of mortuary enclosure ditch [109] Samian, Form 27, Les Martres-de-Veyre. Martres imports were at their height in the first two decades of the second century, but some potters continued to export after that date. However, the form is unlikely to be later than the middle of the century. A date c.A.D.100-130 seems most likely.
G2060.04	Context (112), fill of grave [114]. A small fragment of samian bowl, Central Gaulish. There is an internal groove and a depression on the exterior such as is sometimes seen where the rim of a moulded vessel protruded from the mould. In combination, these two features suggest Form 30. c.A.D.120-200.
G2060.05	Context (271), fill of ditch [270]. Samian, Form 29, South Gaulish. Only the upper, rouletted zone remains. The form went out of production c.A.D.85. The relatively coarse rouletting might suggest a vessel from the later years of production. Probably c.A.D.65-85.
G2060.10	Context (002), ploughsoil Samian, Form 45, Central Gaulish, c.A.D.180-200.
G2060.24	Context (429), fill of grave [428] Samian cup, probably form 27, South Gaulish, c.A.D.70-110.
G2060.510	Context (5057), fill of mortuary enclosure [5004] Abraded rim of an East Gaulish bowl of form 31, 31R or its variants. The diameter of c.15cms suggests form 31. c.A.D.160-220.
G2060.513	Context (5057), fill of mortuary enclosure [5004] Samian cup base fragment, East Gaulish and probably form 33. Probably c.A.D.160-200.

## 2. Black-burnished ware

G2060.01	Context (024), fill of ditch [022] Jar neck in Black-burnished ware. The angle of the neck suggests a 3 <sup>rd</sup> -4 <sup>th</sup> century vessel. 01 also includes a small wall sherd and a piece which seems likely to be burnt stone.
G2060.17	Context (199), fill of pit [190] Bowl wall in Black-burnished ware. The exterior is abraded thus removing any indication of decoration which might have made it possible to narrow the date range. As it is, the piece could date from any time from the late 1 <sup>st</sup> to the 4 <sup>th</sup> century.
G2060.42	Context (5004/113), fill of mortuary enclosure [108] Bowl fragment in Black-burnished ware. The exterior shows lattice decoration with angles close to 90°. Probably $2^{nd}$ century.

#### 3. Mortaria

G2060.15 Context (147), fill of grave [146] Mortarium in off-white fabric with black and some red trituration grits. Somewhat abraded. Mancetter-Hartshill fabric. Without any rim, close dating is not possibly but the thinness of the sherds suggests a 3<sup>rd</sup> to 4<sup>th</sup> century vessel. Two joining fragments.

#### Comment

The assemblage from this site is small and noticeably spread in date. Fragments of some 46 vessels were recovered along with 4 brick fragments, not all certainly Roman.

Almost an eighth of the vessels represented (7 out of 46) were in samian. They consist of one example of form 29, a decorated form which went out of production c.A.D.85. The remaining six vessels (one South Gaulish and one Les Martres cup, form 27, a Central Gaulish bowl and a Central Gaulish mortarium form 45, and East Gaulish forms 31 and 33) span the later first and second century. The mortarium is unlikely to have been made prior to c.A.D.180.

Black-burnished ware was represented by fragments of only three or four vessels, none closely dateable although one jar neck seems likely to date to the second half of the Roman period rather than the first, while a bowl wall with lattice decoration is most likely to be  $2^{nd}$  century in date. One would normally expect more examples of this ware on a site occupied in the  $2^{nd}$  century or later, but the overall numbers of vessels represented is so small that it is difficult to know how much weight to place on this discrepancy.

The diagnostic pieces are completed by a mortarium, probably from Mancetter- Hartshill and 3<sup>rd</sup> or 4<sup>th</sup> century in date. Other vessels are represented only by wall fragments and are likely to be more local in origin and can only be given a generalised Roman date.

Overall the assemblage shows a slight bias towards the later  $1^{st}$  and  $2^{nd}$  centuries, with at least one sherd which should have reached the area very early in the Roman occupation. It would seem to indicate Roman activity in or near the area investigated from the Flavian period through to at least the  $3^{rd}$  century. The precise nature of that activity is unclear, at least from this comparatively small sample of sherds.

#### Catalogue of other sherds

G2060.08	Context (217), fill of oven [218]. Small rather abraded sherd of orange-buff pottery. Probably Roman.
G2060.09	Context (231), fill of grave [230]. Fragment, probably of brick with stone inclusions and with streaks of yellower clay visible. The piece appears to be hand formed rather than a recent product of more mechanical brick making but a Roman origin is far from certain.
G2060.11	Context (150), fill of grave [148]. Three possible tile or brick fragment, much abraded. The one (flat) surface which appears to have been external has a concentration of grit. Probably a fragment of Roman brick or tile
G2060.12	Context (110), fill of mortuary enclosure ditch [109] Coarse fired clay with charcoal and stone inclusions. There are traces of a rounded surface. The whole does not seem to be compacted enough for Roman brick and in many ways would suit fired daub if it were not that it appears to be fired so hard.
G2060.19	Context (327), fill of ditch [270] Two very small and abraded fragments of pottery in pink fabric. With sparse grits. A Roman date is possible but far from certain.

G2060.20	Context (327), fill of ditch [270] Wheel-thrown jar or flagon in orange fabric with fine sand-like inclusions and some clay pellets. Two joining fragments and one other.
G2060.21	Context (101), ploughsoil Fragment, probably of brick with plentiful grit and stone inclusions. No external surfaces remain but the fabric looks too coarse to be a standard Roman one and a more modern origin seems more likely.
G2060.22	Context (362), fill of grave [361] A small fragment of pottery containing plentiful rounded grits and some mica. No external surface remains. A Roman date is far from certain.
G2060.26	<ul> <li>Context (454), fill of grave [455] Two sherds (one broken in half) from two separate vessels:</li> <li>A smooth orange-red fabric with a grey core. The fabric is slightly micaceous and contains sparse fine sand, small ?clay pellets and some small quartz. A Roman date is likely.</li> <li>(Broken in two). An orange-red fabric with plentiful gritty inclusions. One side seems to show large clay pellets. A Roman date seems less likely for this sherd.</li> </ul>
G2060.27	Context (319), fill of pit [318] A sherd burnt brown in a fabric with plentiful clay and sand inclusions and some larger inclusions some of which have leached out. Possibly Roman.
G2060.29	<ul> <li>Context (201), fill of possible grave [202]</li> <li>Three small fragments from at least two separate vessels:</li> <li>A hard light red fabric with some quartz inclusions.</li> <li>Two small rounded fragments with plentiful sandy inclusions. Neither fabric is certainly Roman.</li> </ul>
G2060.41	Context (101), ploughsoil Handle from a large flagon in smooth off-white with sparse grit inclusions. There is no reason why this should not be Roman but it lacks diagnostic features.
G2060.502	Context (5040), fill of mortuary enclosure [5003] Three sherds of redware severely eroded by soil conditions. The filler is random grit. Probably Roman.
G2060.508	Context (5057), fill of mortuary enclosure [5004] Greyware jar sherd, possibly burnt Black-burnished ware or a related fabric. Probably 2 <sup>nd</sup> to 4 <sup>th</sup> century.
G2060.509	Context (5057), fill of mortuary enclosure [5004] Chip from the wall-base junction of a redware jar with mixed grit filler. Roman.
G2060.512	Context (5020), fill of root hollow [5012] Fragment of modern brick. The smooth external surfaces and the possible tubular hole just clipped on this piece suggests a $20^{th}$ century product.
G2060.514	Context (5057), fill of mortuary enclosure [5004] Two lumps of burnt daub.

#### Appendix III.2: Glass H.E.M. Cool

#### Sf 511, unstratified

Apothecary's bottle. Complete rim and neck. Light green/blue. Mould pressed. Apothecaries' bottles are a long-lived form with their origins in the early post medieval period. The type of glass sf 511 it is made from, and the fact that the piece is mould-pressed, indicate this piece is of nineteenth century date or late. Rim diameter 26mm

## Sf 503, context (5038), upper fill of grave [5005]

Window (?) fragment. Blue/green. Flat fragment with one finished edge in form of triangular moulding. Dimensions  $31 \times 31$  mm, thickness 5 - 2mm. Though found in the fill of an early post-medieval grave, this piece gives every impression of being modern. It lacks bubbles and internally there are slight ripple effects parallel to the finished edge. It is clearly made from soda glass and thus has to be either Roman/early medieval or modern. Flat glass fragments are found commonly on Roman sites where they come from either bottles or windows. Flat window glass is found very occasionally on early medieval sites. This fragment does not belong to any of these categories, and the piece is modern and thus intrusive. The moulding on the edge of the piece would be unusual on a modern window pane and might perhaps have been more appropriate on the edge of a glass panel in a piece of furniture.

#### **Appendix III.3: Evaluation of possible pyrotechnological residues** Dr T.P. Young

### Phase 4 material: GeoArch Report 2011/05

#### Summary

This small collection of materials was dominated by concretionary materials, comprising sand and gravel with very little binding clay but with iron and manganese oxides, and likely to be of natural origin, (although secondary heating cannot be excluded). A few pieces had a much higher clay content and appeared to be very low fired. These also had a high sand and gravel content, and might perhaps indicate burning on a natural substrate. There was little evidence that these were prepared clays.

### Methods

All investigated materials were examined visually using a low-powered binocular microscope where necessary and were summarily described and recorded to a database (table III.3.1). As an evaluation, the materials were not subjected to any form of instrumental analysis. The identifications of materials in this report are therefore necessarily limited and must be regarded as provisional.

#### Results

The possible fired clay comprised three different groups of material:

1. Relatively clay- rich material with soft textures, pale grey-buff colours and abundant admixed sand and fine gravel (from 3006).

2. Clay-poor materials with brown-red colours, abundant sand and gravel with a very low clay content and some manganese oxide coatings on the clasts (from 3006).

3. Clay-poor with pink colours, abundant sand and gravel with a very low clay content and abundant manganese oxide coatings and impregnations (from 240 and 277).

A piece (sf6) collected as 'slag' is a concretion around corroding iron. The general shape of the pieces suggests that the enclosed iron is probably oval and c. 30x40mm or a little smaller.

### Interpretation

The possible fired clays are problematic. The colours of the harder materials (2 and 3 above) may simply be due to an elevated content of iron and manganese oxides (from an origin as Fe-Mn pan), rather than being a product of heating. The proportion of sand and gravel in these materials is much higher than is usually seen in deliberately used/processed clays. It is likely that these materials are purely natural, although some degree of heating cannot be excluded.

The more clay-rich materials (1 above) are more likely candidates for being burnt, but again, the moderately high sand/gravel content of these materials may suggest use of an unprocessed clay, or simply slight burning of a natural substrate.

### Evaluation of potential

The possible fired clay and associated materials do not require further investigation. It is recommended that the iron concretion is X-Rayed to determine the nature of the iron object.

#### Table III.3.1: summary catalogue

Find number	Weight (g)	Number of items	context	notes
6	49.3	1	118	piece of corroded iron in concretion, iron probably sub-circular c.30mmx40mm. See appendix III.5 for x-ray.
34	11.4	15	240	coarse sand and gravel to 10mm, bound by salmon-pink/buff clay, which is penetrated by fissures and rounded voids coated with black Mn oxides
35	12.1	6	277	coarse sand bound by clay grade material which is pink/buff on surface but mainly black internally. Probably manganese pan
43	136	20 (+ dust)	3006	This is a rather mixed assemblage. Two pieces are simply gravel pebbles detached from the rest, one is a decomposed rock fragment (total 15.8g). 12 pieces (56.5g) are coarse sand-gravel, cemented by a brownish red matrix, with evidence for clast coatings of manganese oxides; these may be entirely natural concretionary materials, although some reddening through burning cannot be excluded. 55.3g (5 pieces) are of a buff-grey coloured clay bearing abundant sand and gravel clasts. This material may be burnt, but does not appear to be a prepared clay. The material is very soft, so if burnt is very low fired.

#### Phase 5 material: GeoArch Report 2012/02

#### Summary

The submitted material comprised six collections of magnetic residues from sieved samples and one isolated slag fragment.

Much of the magnetic material was natural, but all samples contained some pyrotechnological residues. Most of these pieces were low-density, glassy, vesicular slag, often occurring as rounded blebby pieces or sub-spheroidal droplets. These were attributable to being fuel ash slags. Although such fuel ash slags may be generated in metallurgical hearths, they may also be generated through the partial melting of small fragments of soil or hearth clay in other sorts of pyrotechnology – such as corn-drying kilns. Some of the fuel ash slags may have been clinker – the partially fused residue from the burning of coal. Such materials are extremely hard to distinguish in small grains, but the occurrence of grains of coal in the assemblage strengthen the likelihood that at least some of the fuel ash slag is clinker.

Some of the slag material was denser and better crystalline and may have been true metallurgical slag – although was identifiable with certainty. One spheroid (from c5041) was probably spheroidal hammerscale from iron-working, but other spheroids were less certainly metallurgical.

#### Methods

All investigated materials were examined visually using a low-powered binocular microscope where necessary and were summarily described and recorded to a database (table 1). As an evaluation, the materials were not subjected to any form of instrumental analysis. The identifications of materials in this report are therefore necessarily limited and must be regarded as provisional.

#### Results

The summary catalogue is presented in Table III.3.2.

The six micro-residue assemblages are rather similar in general character. Most contain fuel ash slags, most contain material that is probably clinker and some contain coal. Samples <522> and <523> contain the material most likely to be from iron-working, but only the spheroidal hammerscale particle from <522> can be attributed to iron-working with a high degree on confidence.

Identification of tiny grains of slag material by visual inspection is notoriously difficult and imprecise, because they lack many of the morphological criteria used to identify larger pieces. Indeed, even

certain differentiation from natural iron-rich minerals and crusts, manganese-rich crusts and similar materials can also be extremely difficult.

The present material includes both crystalline slags and dark glassy slags. Much of the material lies within the potential range of morphology of the fuel ash slags. This rather broad term encompasses those 'slags' formed by the partial melting of particles of soil, rock, hearth ceramic or inorganic inclusions within a fuel, under the influence of the fluxing properties (i.e. the capacity to lower the temperature at which a material starts to melt) of the alkali and alkaline earth elements (particularly potassium and calcium) that are present in many fuels.

Fuel ash slags may be generated in many circumstances, but often in metalworking hearths these materials become strongly influenced by elements such as iron – and become converted into true metallurgical slags. They are therefore particularly characteristic of non-metallurgical processes and settings – such as corn drying kilns (e.g. Young 2005, 2010a and 2010b).

Sharing many features with these fuel ash slags are a particular group of fuel ash slags in which the silicate component derives from the fuel itself – these are the slags generated from the burning of coal, which are generally known as clinker. Clinker can usually be distinguished from other sorts of fuel ash slag by density (it is usually denser), colour (often taking a maroon surface colour rather than the tan surface common on other fuel ash slags) and by frequent inclusions of bloated and vitrified coal shale. At least some of the present material shows aspects of these features, although they are not applicable with certainty at the grain size of these samples. The presence of coal fragments in some samples strengthens the likelihood that at least some of the fuel ash slags in the present material derive from the burning of coal.

#### Interpretation

The assemblage lacks particularly clear evidence for iron-working (besides one single particle of reasonably certain spheroidal hammerscale), with a complete lack of any associated macroscopic iron-working slags. This makes it unlikely that iron-working was being undertaken in the immediate vicinity of the investigated area.

The residues were dominated by various forms of fuel ash slag, including probable clinkers. Such materials might derive from a wide variety of domestic and 'industrial' activities. Clinker is a common residue from 19<sup>th</sup> to early 20<sup>th</sup> century steam-driven agricultural machinery, quite apart from its widespread production in industrial processes. The possibility of contamination by intrusive materials remains a possibility with very fine-grained clinker, even in apparently well-stratified contexts.

If the clinker and coal are secure, then they suggest a Roman or medieval (or later) age for the assemblages, for significant transport of coal away from the coalfields is not seen in either the pre-Roman or early medieval periods.

#### References

Young, T. 2005. Site Activities: slag and related materials. pp. 174-176. *In:* Sharples, N (ed.), *A Norse Farmstead in the Outer Hebrides. Excavations at Mound 3, Bornais, South Uist.* Cardiff Studies in Archaeology, Oxbow Books, Oxford.

Young, T.P. 2010a. Fuel ash slags from corn-drying kilns, South Hook LNG Terminal. *GeoArch Report 2010/04*, 24 pp.

Young, T.P. 2010b. Fuel ash slags. P. 163 *in:* Crane, P & Murphy K., Early medieval settlement, iron smelting and crop processing at South Hook, Herbranston, Pembrokeshire, 2004–05. *Archaeologia Cambrensis*, **159**, 117-196.

context	Fill of feature	sample	sf	No of items	notes
5023	5009, oven	502	516	c17	Mixed assemblage, several pieces of probable manganese crust, two, at least, small vesicular slag fragments, one probable clinker bleb and two pieces of coal. Also several dense pieces of probable natural iron oxides and other rocks.
5041	5003, mortuary enclosure	503	519	c27	2 blebs of clinker appearance, 1 piece of coal. 2 fragments of possible grey slag, remainder probably stone. 2 pieces are thin grey sheet, one with maroon surface, but these resemble burnt iron crusts more than slag - but not certain.
5041	5003, mortuary enclosure	504	522	c56	One metallic lustred small spheroid appears like true spheroidal hammerscale. Other slag fragments are possible and there are definite fuel ash slags. One dull weathered slag spheroid, various other possible slag/possible manganese crust fragments.
5041	5003, mortuary enclosure	505	523	c80	Assemblage dominated by a wide variety of mainly dark glassy slags - ranging from individual rounded blebs to angular fragments. Some are certainly fuel ash slag, but others are less diagnostic. No absolutely certain metalworking residues, but much of this material probably is.
5056	5004, mortuary enclosure	508	530	c33	Various small fuel ash-like blebs, one 2mm diameter vesicular slag sphere apparently containing sand grains, slag blister with metallic lustre and 'lumpy' surface cf. clinker and other rather undiagnostic pieces, as well as rock and possible concretion fragments
5067	5007, gully	509	531	c70	Several blebs and fragments of probable slag and clinker, 3 pieces of coal, one piece of rust, remainder mainly natural
5067	5007, gully	509	532	1	A fragment of a fuel ash slag. A complexly rounded, blebby, piece with tan surface locally. Shows various pale clasts embedded in dark glass, one of which is broken and is bloated and foliated. This suggests, but does not prove, the piece is clinker.

Table III.3.2. Summary catalogue of material from Llanbeblig (G2060) Phase 5

## **Appendix III.4: Bone**

Dr Nóra Bermingham

#### Introduction

A small collection of mammal bone was submitted for full analysis (Table III.4.1). The material derives from 8 individual contexts retrieved via hand excavation and wet sieving. The assemblage size prohibits analysis beyond simple quantification and identification where possible.

## Quantification & Preservation

The assemblage comprised of approximately 16 burnt bone fragments, ranging in size between 5mm to 10mm in length and with a total weight of less than 10g. The material is poorly preserved. There are no intact bones or diagnostic bone fragments present which would allow positive identification to species.

### Results

None of the material retrieved is identifiable to species. All bone fragments derive from mammals. Most can be identified as animal rather than human in origin. Where fragments are listed as mammal they are most probably animal (Table III.4.1). Medium sized or sheep/goat sized animals are represented. The majority of fragments derive from post-cranial skeletal elements – mainly long bone fragments. Almost all of the fragments are burnt with many white in colour.

#### Interpretation

The small quantity of material submitted limits interpretation of the assemblage. Human bone has not been identified with the majority of fragments clearly derived from animals. Sheep/goat size animals are represented but further species identification was not possible. At best, the small assemblage represents general domestic waste which could derive from a range of food related activities.

Find	Context	Cut number and feature	Unidentified	Burnt	Frag.	Description
number	number	type			Count	
7	113	108, mortuary enclosure	Y	N	4	Mammal bone. Small pieces of spongy bone.
13	110	109, mortuary enclosure	Y	?	1	Animal bone.
25	466	465, grave	Y	Y	1	Animal bone. Post-cranial- prob. Long bone frag. Sh/gt size.
36	199	190, pit	Y	Y	1	Calcined limb bone 10 mm. Med- lge mammal; probably animal bone.
37	127	115, grave	Y	Y	2	Animal bone x2 frags small-med mammal. 3 small pieces of burnt stone.
38	201	202, possible grave	Y	Y	2	Mammal bone. 8 small pieces of burnt stone.
39	180	176, grave	Y	Y	2	Mammal bone.
40	185	184, oven	Y	Y	3	Mammal bone, probably animal. Post-cranial fragments 5-10 mm.
506	5056	5004, mortuary enclosure	Y	Y	10	Burnt animal bone

## Table III.4.1: Faunal remains

# Appendix III.5: Iron objects

Jane Kenney

Six iron objects were found as itemised in table III.5.1. Most are nails or fragments of nails from graves ovens and two mortuary enclosures. In general the objects are small and are likely to be intrusive. Sf501 is a larger heavily corroded object from a fairly secure context within oven [5009] and is presumably contemporary with this feature. Sf6 is a chunk of corroded material submitted to Tim Young as possible slag but considered by him as a corroded iron object. This came from the fill of grave [117] and is likely to have been deposited in the grave with the backfill, but as this fill in other graves has included Roman pottery it is possible that this item is also Roman in date.

Sf6 and sf501 were x-rayed in an attempt to obtain further information about them.

Find No	Context No	Feature	No of items	Weight (g)	Description
6	118	Grave [117]	1	49.3	Piece of corroded iron in concretion, iron probably sub-circular c.30mm x 40mm
16	262	Oven [249]	1	3.5	Nail, badly corroded
30	282	Grave [281]	1	0.5	Tip of a nail
501	5023	Oven [5009]	1	32	Iron object, possibly a large nail covered in concretions
518	5041	Mortuary enclosure [5003]	1	1	Small corroded iron object, probably nail head
526	5056	Mortuary enclosure [5004]	1	0.5	Bent tip of nail

Table III.5.1: List of iron objects

## *X-ray and assessment of finds 6 and 501* Phil Parkes

The finds were broken when received, with  $\Delta 006$  in 2 pieces and  $\Delta 501$  in 3 pieces. The finds were readhered using HMG cellulose nitrate adhesive prior to x-raying. Finds were x-rayed using a Faxitron 43805 cabinet system. X-ray films were digitised using an Array Corporation 2905 Laser Film Digitiser. Below are comments on information provided by the x-rays.

Find /	X-ray	Notes
context	number	
number		
Δ006	H725,	The object is a rectangular shaped piece of iron which tapers slightly towards a rounded
	H726	end with the wider end appearing to have broken off a larger object / bar. Viewing the
		object from the side the rounding off at one end is also noticeable. The object has
		voluminous corrosion blisters which are visible as right lines in the x-ray from the side
		view.
Δ501	Н725,	The object is a nail.
	H726	

The x-ray provides information on the general shape of object  $\Delta 006$  and there is no evidence from the x-ray of further details that might be revealed by removing corrosion. Because of this I would recommend that cleaning is unnecessary in this case.




## Appendix III.6: Flint and other worked stone

#### Appendix III.6.1 Flint G H Smith

#### Summary of objects

There are seventeen pieces of worked flint or chert and one stone object. These came from five different contexts, summarised in Table III.6.1.

Table III.6.1: Flint summary

Find No	Context No	Material	Description	Provenance
23	368	Flint	Flake frag	Upper fill of grave [361]
28	259	Flint	Flake	Fill of raking-out pit of oven [265]
32	243	Flint	1 flake, 1 chip	Fill of raking-out pit of oven [238]
33	322	Flint	4 flakes, 4 flake frags, 5 chips	Upper fill of pit [318]
31	213	Stone	Pebble with part perforations	Fill of grave [212]

Of these, four pieces, from contexts 243, 259 and 368, are from isolated contexts and so are probably unrelated. Context 322 however produced thirteen pieces, which comprise a small associated group. All the pieces are waste products and all flakes or fragments with no cores, utilised pieces or retouched tools.

#### Methods

The objects were studied by hand lens at 10X magnification. Where more than one object was present with the same finds number a subsidiary number has been given, and marked on each object in pencil. In the description a primary flake has complete cortex back. A secondary flake has partial cortex back. A tertiary flake has no cortex on the back. Dimensions are given in millimetres in the order Length, Breadth and Depth. A number in brackets indicates an incomplete dimension of a broken and incomplete piece.

#### Flint description and comments

#### Context 368

SF 23. Secondary flake fragment of light grey/mid grey mottled pebble flint. Tip fragment with trampling edge damage. (14.5)x20x6mm. A broken struck flake but the damage to its edge suggest it may have been incorporated in its context by chance.

#### Context 259

SF 28. Primary flake of mid-grey-brown pebble flint. Pronounced bulb. 16x15x3mm. Probably an accidental fracture, not a manufactured piece.

#### Context 243

SF 32-1. Tertiary blade-flake of light grey flint. Neat, no platform, probably punch-struck. 28x12x5mm. SF 32-2. Small tertiary chip of fresh, translucent dark grey flint. Probable fragment from the edge of a core. (9)x11x3.5mm.

The types of flint match those from context (322), suggesting that they come from an associated activity.

#### Context 322

SF 33-1. Primary flake of buff mottled flint partially rolled pebble flint. Possibly anvil-struck. 39x20x7mm.

SF 33-2. Snapped-off tip fragment of a thin broad secondary flake. Similar flint to 33-1. (26.5)x20x3mm.

SF 33-3. Butt fragment of a thin, broad tertiary flake. Similar flint to 33-1. (15)x20x3mm.

SF 33-4. Narrow, thick secondary blade-flake from pebble. Similar flint to 33-1. 26x12x5mm.

SF 33-5. Small, narrow thick secondary flake from pebble of buff, cherty flint. No platform, possibly anvilstruck. 30x8x8mm.

SF 33-6. Small, irregular secondary chip from pebble. Similar flint to 33-1. 20x11x4mm.

SF 33-7. Small butt fragment of a primary flake, from a well-rolled pebble. No platform, possibly anvil-struck. Similar flint to 33-1. (14)x15x3mm.

SF 33-8. Small tip fragment of a tertiary flake from similar flint to 33-1. 11x10x2mm.

SF 33-9. Small tertiary chip. No platform. Similar flint to 33-1. 14x9x2mm.

SF 33-10. Small tertiary chip. Scalar, no platform. Similar flint to 33-1. 16x7x2mm.

SF 33-11. Small tertiary chip. Scalar, no platform. Similar flint to 33-1. 8x10x2mm.

SF 33-12. Small, thin, tertiary flake of fresh, mid-grey flint. No platform. With a probably accidental or possibly deliberately retouched small notch on one edge. 16x12x2mm.

SF 33-13. Small secondary scalar chip from fresh, mid-grey flint with thin creamy cortex. Scalar. 9.5x11x2mm.

All the pieces are waste material with no evidence of what was being manufactured and no evidence of ad hoc utilisation. Presumably the better flakes have been taken away. All but two pieces are of similar material and probably come from one knapping episode. The technology is marked by scalar flakes, with facets on both faces, resulting from the working of small pebbles of poor quality flint, probably dependent on use of an anvil to split the pebble. Two pieces are of a better quality flint. The same scalar technology is found in the worked flint and chert from the settlement activity that was found to pre-date the Trefignath chambered tomb, Holyhead, Anglesey and dated to *c*. 4000 Cal BC (Healy 1987).

#### References

Healey, E. 1987. Lithic Technology. In Smith, C.A. and Lynch, F.M., *Trefignath and Din Dryfol*, Cambrian Arch. Monographs 3, 50-9.

#### Appendix III.6.2 Stone G H Smith

#### Summary of objects

These comprise four objects: a small pebble and three pieces of shaped building stone, all summarised in Table III.6.2.

Find No	Context No	Material	Description	Provenance	Draw?
31	213	?chert	Small gravel pebble	Fill of grave [212]	?
04	5038	sandstone	1 frag of sub-rectangular slab	Upper fill of grave [5005] within small mortuary enclosure [5003]	No
05	5041	sandstone	2 frags of sub-rectangular slab	Fill of ditch of small mortuary enclosure [5003]	No
07	5063	sandstone	1 frag of sub-rectangular slab	Fill of ditch of large mortuary enclosure [5004]	No

## Table III.6.2: Other stone objects summary

#### Stone description and comments

The pebble (sf31) is a small well-rolled naturally-shaped gravel pebble of dark, hard rock, possibly chert (D. Jenkins, pers. com.). It has not been artificially shaped but is a natural slightly flattened sphere, 7mm dia. and 5mm deep. It has two slight incised holes, one in each flattened face. The holes are approx. 1.5mm deep and slightly conical with rounded bases so appear to have been artificially incised as if attempting to create a bead. However, the holes are not exactly aligned with each other, face to face, and it is unusually small for a pebble bead so its identification remains somewhat suspect. The incisions are so small in diameter that, if they are manmade, a metal point must have been used, not a flint point, which would have created a wider, conical hole.

The other objects are all similar broken fragments of sub-rectangular blocks of stone that have been chipped to produce faces on three sides to create slabs for construction of a coursed and faced wall.

The pieces of worked building stone occur in contexts without any identifiable association with any stone construction so the pieces must have been deliberately introduced to the site for some other reason. They

occurred in the ditches of two of the mortuary enclosures and it is possible the stones originated from the Segontium Roman fort (see below).

#### Appendix III.6.3 Geological report on building stones David Jenkins

This report relates to the nature and possible origin of several building stones recovered from GAT excavations at Llanbeblig cemetery, Caernarfon. These comprise blocks up to 30cm long that are orthogonal in shape and well dressed, although detailed evidence of dressing is now obscure.

The rock materials involved are similar in general character, comprising a massive sandstone which is well sorted and mostly medium in grain size (1-10mm) although one of the smaller fragments is finer grained (1.0-0.1mm). The clasts are dominated by quartz with other materials being rare and generally unidentifiable, except for pink and jasper-like clasts. The fabric shows a moderate porosity with interstices often filled by a buff coloured clay-sized material. In shape grains are sub-angular to sub-rounded and show only weak evidence of bedding, or stratification, in the form of lines of scattered coarser fragments in planes parallel to the larger face of the block, but with no other obvious structural features such as sorting or cross bedding.

The surface colour of the blocks is a dull reddish brown to pale grey brown, but fractured areas show a strong zonation within a few millimetres down to a pale yellow brown interior. The coarser versions also show a distinct mottling with small coatings on grains of a dark grey to black material, possibly of manganese oxides or organic material. This colouration probably derives from recent burial of the stones in the local soils in addition to any original weathering of the exposed rock surfaces.

Rocks of this nature could derive from local exposures near Caernarfon, and include sandstones of both Ordovician and Carboniferous age. The former belong to the basal Arenig beds (*e.g.* Minffordd and Bangor formations) and outcrops are mapped inland to the South of the site, whilst the latter belong to the basal sandstones of the Visean/Asbian underlying the limestones (*e.g.* Menai Strait formation) of which outcrops are mapped to the North East of the site and exposed along the Strait shore and at Lligwy on Anglesey (Howells 2007). Greenly reported use of both rock types in the construction of the fort of Segontium at Caernarfon (Wheeler 1922), but from the porosity of the rocks examined from Llanbeblig and the lack of clasts of other recognizable rock types such as schists and volcanics, a derivation from a Carboniferous source is more likely, and possibly involved re-use of material from Segontium itself.

#### References

- Wheeler, R.E.M. (1922) The Segontium excavations 1922 Archaeologia Cambrensis LXXVII p.258
- Howells, M.F. (2007) *British Regional Geology: Wales* NERC. British Geological Survey, Nottingham

## Appendix III.7: An assessment of the palaeoenvironmental potential

Rosalind McKenna

## Introduction

A series of eighty three samples from deposits excavated at a site located off Llanbeblig Road, Caernarfon, Gwynedd (centered on NGR SH 4890 6230) were submitted for an evaluation of their environmental potential. Twenty eight samples were submitted in January 2011 (phase one) and a further fifty five samples were submitted in October 2011 (phase two). The excavation was carried out by Gwynedd Archaeological Trust between 6<sup>th</sup> April 2010 and 27<sup>th</sup> May 2011. The samples came from ovens, pits, mortuary enclosures and linear features. The samples range in date from Roman to the early medieval period and the post-medieval period.

A programme of soil sampling from sealed contexts was implemented during the excavation. The aim of the sampling was to:

- assess the type of preservation and the potential of the biological remains
- identify suitable samples for possible radiocarbon dating
- identify if any human activities were undertaken on the site
- reconstruct the environment of the surrounding area

## Methods

The initial material was submitted to the author in a processed state. It was processed by staff at Gwynedd Archaeological Trust using their standard water flotation methods. The flot (the sum of the material from each sample that floats) was sieved to 0.5mm and air dried. The heavy residue (the material which does not float) was not examined, and therefore the results presented here are based entirely on the material from the flot. The flot was examined under a low-power binocular microscope at magnifications between x12 and x40.

A four point semi quantative scale was used, from '1' – one or a few specimens (less than an estimated six per kg of raw sediment) to '4' – abundant remains (many specimens per kg or a major component of the matrix). Data were recorded on paper and subsequently on a personal computer using a Microsoft Access database.

The flot was then sieved into convenient fractions (4, 2, 1 and 0.3mm) for sorting and identification of charcoal fragments. Identifiable material was only present within the 4 and 2mm fractions. The number of charcoal fragments to be identified is dependent on the diversity of the flora. A study by Keepax (1988, 120-124) has indicated that depending on the location of the archaeology site, 100-400 fragments of charcoal would need to be identified in order to obtain a full range of species. A random selection of ideally 100 fragments of charcoal of varying sizes was made, which were then identified. Where samples did not contain 100 identifiable fragments, all fragments were studied and recorded. This information is recorded with the results of the assessment in Table 3 below. Identification was made using the wood identification guides of Schweingruber (1978) and Hather (2000).

Taxa identified only to genus cannot be identified more closely due to a lack of defining characteristics in charcoal material.

## Results

Table III.7.1 below shows the components recorded from each of the samples.

Of the eighty three samples submitted, charred plant macrofossils were present in thirty seven of the samples; twenty two samples came from the phase one material and fifteen samples from the phase two material. Identifiable remains were present in thirty two of the samples. They were generally poorly preserved, and were lacking in most identifying morphological characteristics. The results of this analysis can be seen in Table III.7.2 below. The samples generally produced small assemblages of plant remains both in volume and diversity.

The most abundant remain was oat grains, which were present in eight of the samples sometimes in very large numbers of charred cereal grains. Indeterminate cereal grains were recorded in twenty five of the samples. These grains, which lacked identifying morphological characteristics, were therefore recorded as 'indeterminate cereal'. Where it was possible to ascertain identifications, oat was the most abundant remain being present in eight samples sometimes in large numbers, wheat was present in six samples and barley was also present in eleven samples. The presence of cereal chaff may also indicate the use of cereals at the site, and this was present

in three of the samples. Another, more indirect, indicator of cereals being used on site is the remains of arable weeds that were found in nine of the samples. Charred hazel nut shell fragments were also present in eight samples.

Charcoal remains were present in all eighty three of the samples and scored between '1' and '4' on the abundance scale. There were identifiable remains in forty two of the samples. The preservation of the charcoal fragments was relatively variable even within the samples. Some of the charcoal was firm and crisp and allowed for clean breaks to the material permitting clean surfaces where identifiable characteristics were visible. However, most of the fragments were very brittle, and the material tended to crumble or break in uneven patterns making the identifying characteristics harder to distinguish and interpret. Table III.7.3 below shows the results of the charcoal assessment.

Twenty four of the forty two samples that produced identifiable remains were dominated by oak (eleven samples containing purely oak). Twenty of the samples were dominated by hazel (with two of the samples being composed purely of hazel). Ash was also present in twenty samples, willow/poplar was present in ten samples, elm was present in two samples, and alder was present in a single sample.

The total range of taxa comprises oak (Quercus), ash (Fraxinus), willow/poplar (Salix/Populus), hazel (Corylus), alder (Alnus), and elm (Ulmus). These taxa belong to the groups of species represented in the native British flora. A local environment with a range of trees and shrub is indicated from the charcoal of the site. As seen in Table III.7.3, oak is by far the most numerous of the identified charcoal fragments, and it is possible that this was the preferred fuel wood obtained from a local environment containing a broader choice of species. Oak is probably the first choice structural timber, and with a local abundance it may have been used instead of ash, thereby providing more by-product fire fuel.

Root / rootlet fragments were also present within eighty one of the eighty three samples. This indicates disturbance of the archaeological features, and this may be due to the nature of some features being relatively close to the surface, as well as deep root action from vegetation that covered the site. The presence of earthworm egg capsules in sixty six of the samples and snails in a single sample further confirms this disturbance.

#### Discussion

The charcoal remains showed the exploitation of several species native to Britain, with the prevalence of oak, and hazel being selected and used as fire wood. 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 a fire fuel (Rossen and Olsen 1985). 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). Ash was also present in significant numbers. Ash is strong and tough and makes an excellent firewood, producing both heat and flame. It will also burn whilst green. Willow/Poplar was present in smaller numbers. These 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. Elm and alder were also present in the samples in small numbers. The timber of elm is tough and characterised by interlocking fibres that prevent cleaving and splitting (Gale and Cutler 2000, 264). Alder is a wood that burns quickly when used for firewood, but has been found suitable for charcoal production. This may indicate some small scale charcoal production, but given that it is not the most abundant taxa, may merely represent a selection of available firewood

The charcoal assemblages from the varying features and phases are all very similar. A constant use of oak as the most popular fuel is selected with hazel, ash, willow/poplar, alder and elm also being utilised in varying amounts. Only a single sample produced identifiable remains from the grave fills (sample 092 [163]) and the only identifiable fragments were oak. A single sample from the mortuary enclosure (sample 508 [5004]) also produced identifiable remains, and this contained purely hazel charcoal.

The samples from the ovens and the corn dryer all produced similar remains – showing a predominance of oak, with hazel, ash, elm and willow/poplar also being used as fuel in these features.

The pit fills were mainly dominated by oak, with ash dominating one sample (sample 089 [340]) and hazel common in pit [318]. A single sample from the gully features (sample 509 [5007]) produced identifiable

remains, and hazel dominated this sample with willow/poplar also being present. Two samples from features that have been interpreted as possible tree roots produced only remains identifiable as oak, possibly confirming this interpretation.

As asserted by Scholtz (1986) cited in Prins and Shackleton (1992:632), the "Principle of Least Effort" suggests that communities of the past collected firewood from the closest possible available wooded area, and in particular the collection of economically less important kindling fuel wood (which was most likely obtained from the area close to the site), the charcoal assemblage does suggest that the local vegetation would have consisted of an oak woodland close to the site.

Generally, there are various, largely unquantifiable, factors that effect the representation of species in charcoal samples including bias in contemporary collection, inclusive of social and economic factors, and various factors of taphonomy and conservation (Thery-Parisot 2002). On account of these considerations, the identified taxa are not considered to be proportionately representative of the availability of wood resources in the environment in a definitive sense, and are possibly reflective of particular choice of fire making fuel from these resources. Bark was also present on some of the charcoal fragments, and this indicates that the material is more likely to have been firewood, or the result of a natural fire.

The archaeobotanical evidence found in the samples was all very similar in the various features and periods studied. The samples with remains from the early medieval period came from features that were grave fills (eight samples) and related to the mortuary enclosure (two samples). Indeterminate cereal grains were present in eight of these samples, in small numbers. Barley was present in small numbers in a single sample (sample 6 [109]) from the mortuary enclosure. Oats were present in two samples (sample 029 [186] and sample 092 [163]) from the grave fills but again in very small numbers. Hazel nut shell fragments were also present in a single sample (sample 029 [186]) in small numbers. Overall, the low numbers of grains and weed seeds in the samples from the medieval period probably indicates the use of material cut from cultivated ground as fuel.

Samples from pits of differing date produced plant macrofossils. Three of these samples (sample 038 [205] and sample 081 and 088 from feature [190] produced reasonable sized assemblages both in terms of abundance and diversity. The sample from feature [205] was dominated by indeterminate cereal grains, but also recorded the remains of barley, wheat and oat together with several 'weed' seeds. A small number of hazel nut shell fragments were also recorded from this feature. The two samples from feature [190] were both also dominated by indeterminate cereal grains. They both however also produced significant numbers of oats and small numbers of barley and wheat grains, together with several 'weed' seeds. This may indicate the dumping of spoilt grain or a cooking mishap, or it may be the build-up of occupational waste and its subsequent deposition into the pit feature. Pit [190] was dated to the medieval period.

Two samples from pit [318] (samples 84 and 85), dated to the Neolithic period, produced abundant hazel nut shell fragments. Together with the hazel charcoal also recorded from these samples, it may indicate that they are merely representative of hazel wood trees being burnt, which could be either a natural or a man-made process.

Samples from the Roman period came from ovens, ditches and gullies. The samples from the ovens produced very small assemblages of plant macrofossils both in terms of abundance and diversity. Seven of the features contained indeterminate cereal grains, two contained wheat grains, three contained barley grains and two contained oat grains. These were all however in very small numbers, and so little interpretation can be made other than to state their presence.

The most abundant remains in terms of volume originated from sample 509 which came from gully feature [5007]. Over four thousand oat grains, more than 500 grass seeds as well as a number of indeterminate cereals, barley and wheat grains were recorded, together with a few 'weed' seeds and several hazel nut shell fragments. It is likely that this sample represents a single depositional event, possibly relating to either a spoilt grain store, an accident whilst drying the grains or the remnants of a meal. The preservation of the grains tended to be very good, and it was even possible to view the hairs on the oats which indicate they were of the cultivated variety. It is probable that the wheat and barley grains as well as the unidentified grasses were incorporated into the oat crop as weeds.

A single sample from a ditch (sample 086 [154]) produced a small number of indeterminate cereal grains. A sample from the possible tree root feature [495] contained several hazel nut shell fragments.

Two samples from a corn dryer that post-dated the medieval cemetery (samples 21 and 109 from feature [137]) produced remains of plant macrofossils. Both samples produced relatively small assemblages both in size and diversity. The most abundant remains in the samples were oat grains, followed by indeterminate cereal grains. Barley and hazel nut shell fragments were also recorded in both samples. Overall, the low numbers of grains and weed seeds in the samples indicates the accidental burning of cleaned grain and its subsequent disposal.

Another, more indirect, indicator of cereals being used on site is the remains of arable weeds that were found in nine of the samples. Among these weeds, some of which are characteristic of cereal fields and rarely found elsewhere, are dock (*Rumex*), and goosefoot/orache (*Chenopodium* spp. / *Atriplex* spp.).

#### Conclusion

The samples produced some environmental material, with the charcoal from forty two of the samples and the plant macrofossils from thirty two of the samples. The deposits from which the samples derive, probably represent the domestic waste associated with fires.

The archaeobotanical evidence found in the samples shows hazelnut shell, oat wheat, and barley, were present, possibly indicating an exploitation of cereals. The hazelnut shell fragments show no marks typically associated with processed shells. Together with the high portion of hazel charcoal, this may indicate that they are merely representative of hazel wood trees being burnt, which could be either a natural or a man-made process. However, with the remains of several cereal grains throughout the samples it is more likely that the samples represent occupation build-up of domestic waste. Due to the small numbers of cereal grains and associated weed seeds in the majority of the samples, there is limited interpretative information. Where there are larger assemblages present it is possible to ascertain that oats were the most utilised grain, with barley and wheat either used on a smaller scale, or merely incorporated into the record as weeds of the oat crops. A more detailed identification and quantification of sample 509 [5007] may further interpretation.

It is thought to be problematic using charcoal and plant macrofossil records from archaeological sites, as they do not accurately reflect the surrounding environment. Wood was gathered before burning or was used for building which introduces an element of bias. Plant remains were also gathered foods, and were generally only burnt by accident. Despite this, plant and charcoal remains can provide good information about the landscapes surrounding the sites presuming that people did not travel too far to gather food and fuel.

#### **Recommendations**

The samples have been assessed, and any interpretable data has been retrieved. No further work is required on the majority of the samples. The plant macrofossils from sample 509 from gully feature [5007] should be fully identified and quantified. A thorough research into comparable sites must also be made at this stage. A list of samples containing material viable for the radiocarbon dating process has been forwarded to GAT, and a decision will be made as to which samples are to undergo this process.

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## Tables

Table III.7.1. Components of the subsamples from deposits recovered from grave fills.

Semi quantitative score of the components of the samples is based on a four point scale, from '1' – one or a few remains (less than an estimated six per kg of raw sediment) to '4' – abundant remains (many per kg or a major component of the matrix).

Sample	009	010	011	012	016	017	020		023	025	029	030
Cut	119	117	115	115	111	111	146		176	148	186	177
Deposit	120	118	116	127	112	128	147		180	149	188	189
Feature type	Grave fill	Grave	fill	Grave fill	Grave fil	Grave fill	Grave fill					
Charcoal fgts.	2	4	3	4	4	4	4		4	4	4	4
Earthworm egg capsules	2	2	1	2	1	1	1		1		1	2
Plant macros. (ch.)				1					1		1	
Root/rootlet fgts.	4	3	4	2	2	1	3		3	2	3	3
Sand	1	1	1	3	2	2	2		2	1	3	2
Sample	036	039	040	042	044	045	046		048	049	064	067
Cut	202	212	214	172	219	225	227		223	230	264	268
Deposit	201	213	215	174	220	226	228		224	231	263	269
Feature type	Grave fill	Grave	fill	Grave fill	Grave fill	Grave fill	Grave fill					
Charcoal fgts.	4	3	4	4	4	3	4		4	4	3	4
Earthworm egg capsules	2	1	1	1	2	1	1		1	1	1	1
Plant macros. (ch.)		1	1									
Root/rootlet fgts.	3	4	3	3	1	3	3		3	2	4	2
Sand	3	2		3	1	4	1		2	3	2	1
Slag fgts.			1				2					
Sample	071	077	079	092	507			510				
Cut	281	288	310	163	5005			5006				
Deposit	282	289	309	171	5060			5050				
Feature type	Grave fill	inside ME 50	003	Grav	ve fill inside N	ME 5004						
Charcoal fgts.	4	3	3	4	2			2				
Earthworm egg capsules	1	1	1	2	1							

Plant macros. (ch.)		1		1	1	
Root/rootlet fgts.	2	4	4	3	3	4
Sand	3	3	3	3	4	3

Table III.7.1. Components of the subsamples from deposits recovered mortuary enclosures.

Sample	503	504	505	508	6	15
Cut	5003	5003	5003	5004	109	108
Deposit	5041	5041	5041	5056	110	113
Feature type	Mortuary	Mortuary	Mortuary	Mortuary	Mortuary	Mortuary
	enclosure	enclosure	enclosure	enclosure	enclosure	enclosure
Charcoal fgts.	3	3	3	4	2	2
Earthworm egg capsules	1	1	1		2	2
Plant macros. (ch.)					2	1
Root/rootlet fgts.	4	3	4	2	2	3
Sand	2	4	3	1	4	4

Table III.7.1. Components of the subsamples from deposits recovered from ovens

Sample	1	3	5	24	27	28	33	34	35	41	50	51	52	53	54	55	61	65	66	69	70
Cut	3004	105	105	184	184	184	166	166	166	218	218	237	237	236	237	272 (part of 249)	260	260	249	278	278
Deposit	3006	126	124	183	185	187	164	165	169	217	240	245	242	241	243	250	257	259	262	277	280
Charcoal fgts.	4	4	4	4	3	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4	4
Earthworm egg capsules		1	1	1	2		2	2		1	1	1	1	1	1	1		1	1		
Plant macros. (ch.)	1	1	1	1	1	1	1			1									1		
Root/rootlet fgts.	2	2	1	2	3	1	3	3	2	3	2	2	2	2	2	3	2	1	2	2	3
Sand					4		3			4										2	2
Snails																					
Slag fgts.																	1				

Sample	73	74	75	83	<b>98</b>	99	101	103	106	110	111	502
Cut	283	283	294	299	382	386	388	473	491	249	5009	5009
Deposit	290	291	292	302	381	387	405	477	492	261	5023	5023
Charcoal fgts.	4	4	4	4	4	4	4	4	4	4	4	4
Earthworm egg capsules	1		1		2	1		1				
Plant macros. (ch.)	1	1										
Root/rootlet fgts.	2	2	2	2	2	1	1	2	1		1	
Sand					3		2			4	4	
Snails							1					

Table III.7.1. Components of the subsamples from deposits recovered from corn dryer [137].

Sample	21	109
Cut	137	137
Deposit	168	136
Feature type	Fill of corn dryer	Fill of corn dryer
Charcoal fgts.	4	4
Earthworm egg capsules	1	1
Plant macros. (ch.)	2	2
Root/rootlet fgts.	2	2
Sand	2	2

Table III.7.1. Components of the subsamples from deposits recovered from pits and fire site.

Sample	08	37	38	58	81	84	85	88	89	96
Cut	133	205	205	247	190	318	318	190	340	
Deposit	135	206	207	248	199	31	322	337	341	354
Feature type	Pit	Pit	Pit	Fire site	Pit	Pit	Pit	Pit	Pit	? pit
Charcoal fgts.	4	4	4	1	4	4	4	4	4	2

Earthworm egg capsules	1	1	1	2	1	1	1	2		1
Plant macros. (ch.)		1	3	1	2	1	1	2		
Root/rootlet fgts.	3	3	2	4	3	2	2	2	2	1
Sand		3	1		2	3	4	2		4
Slag fgts.		1								

Table III.7.1. Components of the subsamples from deposits recovered from ditches and gullies.

Sample	086	509
Cut	154	5007
Deposit	321	5067
Feature type	Ditch	Gully
Charcoal fgts.	4	4
Earthworm egg capsules	2	1
Plant macros. (ch.)	1	4
Root/rootlet fgts.	2	2
Sand	3	2
Slag fgts.		1

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Sample	107	108
Cut	483	495
Deposit	482	494
Feature type	?tree roots	?tree roots
Charcoal fgts.	4	4
Earthworm egg capsules	1	1
Plant macros. (ch.)	1	
Root/rootlet fgts.	2	1
Sand	2	2

Table III.7.2: Complete list of taxa recovered from deposits recovered from grave fills.

Sample	012	023	029	039	040	077	092	507	
Cut	115	176	186	212	214	288	163	5005	
Deposit	127	180	188	213	215	289	171	5060	
Feature type	Grave fill inside								
	fill	ME 5003							
Sample volume (ml)	15	10	10	5	5	10	10	10	
LATIN BINOMIAL									COMMON NAME
Corylus avellana (fgts.)			2						Hazelnut shell fgts.
BRASSICACEAE							1		Cabbage family
Avena cf. sativa		2					5		Oat (possible cultivated)
Indeterminate cereal	2			3	4	3	1	1	Indeterminate cereal
Indeterminate glume base							1		Indeterminate glume base
Indeterminate culm node							1		Indeterminate culm node

Taxonomy and Nomenclature follow Stace (1997).

Table III.7.2: Complete list of taxa recovered from deposits recovered from Mortuary Enclosures.

Sample	6	15	
Cut	109	108	
Deposit	110	113	
Feature type	Mortuary enclosure	Mortuary enclosure	
Sample volume (ml)	5	10	
LATIN BINOMIAL			COMMON NAME
POACEAE		1	Grass Family
Hordeum spp.	4		Barley
Indeterminate cereal	7	6	Indeterminate cereal
Indeterminate glume base	1		Indeterminate glume base
Unidentified	1	1	Unidentified

Table III.7.2: Complete list of taxa recovered from deposits recovered from pits

Sample	37	38	81	88	84	85	
Cut	205	205	190	190	318	318	
Deposit	206	207	199	337	31	322	

Feature type	Pit	Pit	Pit	Pit	Pit	Pit	
Sample volume (ml)	10	25	25	25	150	100	
LATIN BINOMIAL							COMMON NAME
Corylus avellana (fgts.)		7			76	92	Hazelnut shell fgts.
Chenepodium / Atriplex spp.		2	2	15			Goosefoot / Orache
Stellaria media (L.) Vill				1			Common chickweed
Polygonum lapathafolium L.			2				Pale persicaria
Rumex spp. L.				10			Docks
Pisum spp. L.			1				Garden pea
Prunella vulgaris L.			1				Selfheal
Chrysanthemum segetum		9		3			Corn marigold
Carex spp.			1			1	Sedge
Scirpus spp.		1	2	4			Wood club rush
POACEAE		11	6	8			Grass Family
Avena cf. sativa		8	32	103			Oat (possible cultivated)
Hordeum spp.		36	2	4			Barley
Hordeum spp. lemna base		1					Barley lemna base
<i>Triticum</i> spp.		13	5	15			Wheat
Indeterminate cereal	7	131	50	218			Indeterminate cereal
Indeterminate glume base							Indeterminate glume base
Unidentified		1		1			Unidentified

Table III.7.2:	Complete list of	of taxa recovered	from deposits	recovered from ovens.
	1			./

Sample	1	3	5	24	27	28	33	66	73	74	
Cut	3004	105	105	184	184	184	166	249	283	283	
Deposit	3006	126	124	183	185	187	164	262	290	291	
Feature type	Oven										
Sample volume (ml)	1650	550	80	300	400	100	10	100	150	100	
LATIN BINOMIAL											COMMON NAME
Polygonum lapathafolium L.	1							2			Pale persicaria
POACEAE										1	Grass Family
Avena cf. sativa					1			6			Oat (possible cultivated)

Hordeum spp.			1	3	3	1				Barley
Triticum spp.						2		25		Wheat
Indeterminate cereal	4	2		7	5	8	5	6	4	Indeterminate cereal
Unidentified								2		Unidentified

Sample	109	21	086	509	108	58	
Cut	137	137	154	5007	495	247	
Deposit	136	168	321	5067	494	248	
Feature type	corn dryer	corn dryer	Ditch	Gully	?tree roots	Fire site	
Sample volume (ml)	35	5	10	200	380	5	
LATIN BINOMIAL							COMMON NAME
Corylus avellana (fgts.)	2	2		7	12		Hazelnut shell fgts.
Chenepodium / Atriplex spp.	2						Goosefoot / Orache
Polygonum lapathafolium L.							Pale persicaria
Rumex spp. L.	1			2			Docks
BRASSICACEAE				2			Cabbage family
Raphanus raphanistrum L. (capsule)		1					Wild raddish (capsule)
Raphanus raphanistrum L. (capsule fgts)		2					Wild raddish (capsule fgts.)
Pisum spp. L.				1			Garden pea
Galium spp. L.					1		Bedstraws
<i>Carex</i> spp.	1						Sedge
POACEAE				500+			Grass Family
Avena cf. sativa	42	6		c.4000+			Oat (possible cultivated)
Hordeum spp.	3	3		18			Barley
<i>Triticum</i> spp.				34			Wheat
Indeterminate cereal	17	7	4	62		5	Indeterminate cereal
Indeterminate culm node	4						Indeterminate culm node
Unidentified	1			6			Unidentified

Table III.7.2: Complete list of taxa recovered from deposits recovered from corn dryer, ditches, gullies, fire site and ?tree roots.

Table III.7.3. Complete list of taxa recovered from deposits recovered grave fills.

Sample		092
Cut		163
Deposit		171
Feature type		Grave fill
No fragments		100+
Max size (mm)		9
Name	Vernacular	
Quercus	Oak	29
	Indeterminate	71

Table III.7.3. Complete list of taxa recovered from deposits at deposits recovered from Mortuary Enclosure.

Sample		508
Cut		5004
Deposit		5056
Feature type		Mortuary enclosure
No fragments		400+
Max size (mm)		25
Name	Vernacular	
Corylus avellana	Hazel	100

Table III.7.3.	Complete list o	of taxa recovered	from deposits	recovered from ovens.
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Sample	1	3	5	24	27	28	34	35	41	50	51	52	53	54	55
Cut	3004	105	105	184	184	184	166	166	218	218	237	237	236	237	272
Deposit	3006	126	124	183	185	187	165	169	217	240	245	242	241	243	250
Feature type	Oven	Oven	Oven	Oven	Oven	Oven	Oven	Oven	Oven	Oven	Oven	Oven	Pit cut into oven	Oven	Oven (part of 249)
No	3000+	1000+	500+	1000+	100+	200+	100+	500+	100+	1500+	2500+	1000+	5000+	5000+	500+

fragments																
Max size (mm)		26	27	21	15	29	24	12	18	10	17	24	17	27	31	22
Name	Vernacular															
Corylus avellana	Hazel	15	12	86					17		16					
Salix / Populus	Willow / Poplar	8	5		17	11	7									
Ulmus	Elm							12	5							
Fraxinus excelsior	Ash	21	28			7	15					77			42	
Quercus	Oak	39	55		62	38	49	40	61	92	84	23	100	100	58	100
	Indeterminate	17		14	21	44	29	48	17	8						

Table III.7.3. Complete list of taxa recovered from deposits recovered from ovens.

Sample		61	65	66	69	70	73	74	75	83	98	99	101	103	106	110	111	502
Cut		260	260	249	278	278	283	283	294	299	382	386	388	473	491	249	5009	5009
Deposit		257	259	262	277	280	290	291	292	302	381	387	405	477	492	261	5023	5023
Feature		oven	oven	Oven	Oven	oven	Oven	Oven	Oven	Oven	Oven	Oven	Oven	Oven	Oven	Oven	oven	oven
type																		
No		3500+	5000+	200+	4000+	1500+	300+	200+	2000+	300+	100+	4000+	2500+	2000+	500+	100+	2000+	5000+
fragments																		
Max size		19	22	29	26	21	23	17	25	19	12	22	31	35	34	39	40	24
(mm)																		
Name	Vernacular																	
Corylus	Hazel	86	63		49	88	15		66		27			25	25			72
avellana																		
Salix /	Willow /										5				61		22	
Populus	Poplar																	
Ulmus	Elm																	
Fraxinus	Ash	11	26	13	16	12	24	62	8	25				43	7		78	28

excelsior																
Quercus	Oak	3	11	42	35	40		26	54	33	100	100			100	
	Indeterminate			45		21	38		21	35			32	7		

Table III.7.3. Complete list of taxa recovered from deposits recovered from Corn Dryer.

Sample		109
Cut		137
Deposit		136
Feature type		Fill of corn dryer
No fragments		100+
Max size (mm)		12
Name	Vernacular	
Alnus glutinosa	Alder	29
Corylus avellana	Hazel	17
Quercus	Oak	13
	Indeterminate	41

*Table III.7.3. Complete list of taxa recovered from deposits recovered from pits.* 

Taxonomy and nomen	clature follow So	chweingruber (1978).	Numbers are identified	charcoal fragment for a	each sample.
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Sample		08	84	85	89
Cut		133	318	318	340
Deposit		135	319	322	341
Feature type		Pit	Pit	Pit	Pit
No fragments		100+	200+	200+	2500+
Max size (mm)		21	14	18	21
Name	Vernacular				

Corylus avellana	Hazel		47	88	
Salix / Populus	Willow / Poplar			4	
Fraxinus excelsior	Ash				79
Quercus	Oak	100	32	8	21
	Indeterminate		21		

Table III.7.3. Complete list of taxa recovered from deposits recovered from gullies.

Sample		509
Cut		5007
Deposit		5067
Feature type		Gully
No fragments		400+
Max size (mm)		23
Name	Vernacular	
Corylus avellana	Hazel	69
Salix / Populus	Willow / Poplar	31

Table III.7.3. Complete list of taxa recovered from deposits recovered from tree roots.

Sample		107	108
Cut		483	495
Deposit		482	494
Feature type		?tree roots	?tree roots
No fragments		5000+	500+
Max size (mm)		35	28
Name	Vernacular		
Quercus	Oak	100	87
	Indeterminate		13

## **Appendix III.8: Full analysis of Sample 509 (from gully [5007])** Rosalind McKenna

## Introduction

A series of eighty three samples from deposits excavated at a site located off Llanbeblig Road, Caernarfon, Gwynedd (centered on NGR SH 4890 6230) were submitted for an evaluation of their environmental potential in two stages in 2011. Following the assessment of these samples (McKenna appendix III.7) it was recommended that a more detailed analysis of the material from sample 509, the fill (5067) of gully feature [5007] be carried out. This report details the results of the full analysis.

## Methods

The initial material was submitted to the author in a processed state. It was processed by staff at Gwynedd Archaeological Trust using their standard water flotation methods. The flot (the sum of the material from each sample that floats) was sieved to 0.5mm and air dried. The heavy residue (the material which does not float) was not examined, and therefore the results presented here are based entirely on the material from the flot. The flot was examined under a low-power binocular microscope at magnifications between x12 and x40.

A four point semi quantative scale was used, from '1' – one or a few specimens (less than an estimated six per kg of raw sediment) to '4' – abundant remains (many specimens per kg or a major component of the matrix). Data were recorded on paper and subsequently on a personal computer using a Microsoft Access database.

Identification was carried out using published keys (Jacomet 2006, Biejerinkc 1976, Jones – unpublished and Zohary & Hopf 2000), online resources (<u>http://www.plantatlas.eu/za.php</u>), the authors own specimens and the reference collection housed at Birmingham Archaeology's laboratory. This information is recorded with the results of the assessment in Table III.8.2 below. Taxonomy and nomenclature follow Stace (1997).

The flot was then sieved into convenient fractions (4, 2, 1 and 0.3mm) for sorting and identification of charcoal fragments. Identifiable material was only present within the 4 and 2mm fractions. The number of charcoal fragments to be identified is dependent on the diversity of the flora. A study by Keepax (1988, 120-124) has indicated that depending on the location of the archaeology site, 100-400 fragments of charcoal would need to be identified in order to obtain a full range of species. A random selection of ideally 100 fragments of charcoal of varying sizes was made, which were then identified. Where samples did not contain 100 identifiable fragments, all fragments were studied and recorded. This information is recorded with the results of the assessment in Table III.8.3 below. Identification was made using the wood identification guides of Schweingruber (1978) and Hather (2000).

Taxa identified only to genus cannot be identified more closely due to a lack of defining characteristics in charcoal material.

## Results

Table III.8.1 below shows the components recorded from the sample.

The results of the full analysis can be seen in Table III.8.2 below. The samples produced a large assemblage of plant remains in volume. The most abundant remain was oat grains. Indeterminate cereal grains were recorded. These grains, which lacked identifying morphological characteristics, were therefore recorded as 'indeterminate cereal'. Wheat and barley were also present in small numbers. Charred hazel nut shell fragments were also present within the sample, together with a small suite of weed/wild plants.

Charcoal remains were present in the sample and scored a '4' on the abundance scale. Table III.8.3 below shows the results of the charcoal assessment. The total range of taxa comprises willow/poplar (Salix/Populus), and hazel (Corylus). These taxa belong to the groups of species represented in the native British flora. A local environment with a range of trees and shrub is indicated from the charcoal of the site. As seen in Table III.8.3, hazel is by far the most numerous of the identified charcoal fragments, and it is possible that this was the preferred fuel wood obtained from a local environment containing a broader choice of species.

Root / rootlet fragments were also present within the sample. This indicates disturbance of the archaeological features, and this may be due to the nature of the feature being relatively close to the surface, as well as deep root action from vegetation that covered the site. The presence of earthworm egg capsules further confirms this disturbance.

### Discussion

The charcoal remains showed the exploitation of several species native to Britain, with the prevalence of hazel being selected and used as fire wood. 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). Willow/Poplar was present in smaller numbers. These 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.

As asserted by Scholtz (1986) cited in Prins and Shackleton (1992:632), the "Principle of Least Effort" suggests that communities of the past collected firewood from the closest possible available wooded area, and in particular the collection of economically less important kindling fuel wood (which was most likely obtained from the area close to the site), the charcoal assemblage does suggest that the local vegetation would have consisted of an oak woodland close to the site.

Generally, there are various, largely unquantifiable, factors that effect the representation of species in charcoal samples including bias in contemporary collection, inclusive of social and economic factors, and various factors of taphonomy and conservation (Thery-Parisot 2002). On account of these considerations, the identified taxa are not considered to be proportionately representative of the availability of wood resources in the environment in a definitive sense, and are possibly reflective of particular choice of fire making fuel from these resources. Bark was also present on some of the charcoal fragments, and this indicates that the material is more likely to have been firewood, or the result of a natural fire.

The most abundant remains in terms of volume from all the samples previously assessed, originated from sample 509 which came from gully feature [5007]. Oat grains dominated the charred macrofossil assemblage. These were divided into two size categories: large grains which were retained on the 2mm sieve; and small, slender grains which passed through this sieve. All of these may be from *Avena sativa* (cultivated oats), as the spikelets of this species usually have two fertile florets, the first producing larger grains than the second (Jacomet 2006).

Oats are often grown on poor, acidic soils, and in areas of high rainfall and low summer temperatures. Bristle oat, in particular, was a useful crop in the past for the most infertile soils in Wales and Scotland (de Rougemont, 1989). Oats grow best on water-retentive soils such as loams and clays, and they are often spring-sown because they are not very frost-hardy. Rather than being ripened in the field, they should be harvested in an under-ripe state to avoid the ears shattering prematurely, and then dried indoors, in ovens, or over hearths. They are valued for the high energy fodder they provide to livestock, particularly draught animals.

Oats form a hardy crop which is less susceptible to wet weather and better suited to acid sandy soils such as those locally present than wheat or barley. It is possible that they were a significant crop at the site. Oats form an important source of animal feed, particularly for horses, but are also an important human food. Markham (1681), writing in the 17<sup>th</sup> century, writes 'of the excellency of oats and the many singular virtues and uses of them in a family' (Markham 1668, 175-180) which include malt for ale, and as oatmeal used in place of salt, for a variety of foods including bread, oaten biscuits, haggis and greets, as well as animal feed.

The abundance of the small, slender grains, together with the presence of several grass species, suggests that at least a proportion of these grains, are probably from wild species of oats. Grasses were also represented in the sample and included brome, bristle oat, and tubers of false oat-grass/onion couch.

Another, more indirect, indicator of cereals being used on site is the remains of arable weeds that were found in nine of the samples. Among these weeds, some of which are characteristic of cereal fields and rarely found elsewhere, are dock (*Rumex*), and common chickweed (*Stellaria media*).

If cereal processing were occurring at the site, it would be expected that some remains (most probably in high numbers) of cereal chaff – a by-product of the crop processing sequence as stated in Hillman (1981; 1984) would be found. There was chaff present but only in small amounts in comparison to the amount of grains recorded. However, the rarity of chaff is a phenomenon repeatedly reported from archaeological deposits, and although this may suggest that the grain was already threshed and winnowed, if not also milled, by the time it reached the site, it may also show that any chaff was burnt up completely in the fires in which it was deposited. The former of these two theories is however the more plausible.

The deposits contain a mixture of grain and similarly sized weed seeds, such as grasses (POACEAE), which most likely represent the fine sieve product (i.e. the cereal grain and larger sized weed seeds retained by a fine sieve ) in the crop processing sequence (Hillman 1981; 1984; 1985 and Jones 1984). Fine sieving was most likely performed just before milling (Jones 1984, 46) or some other use, such as malting or parching (Hillman 1981, 137). Large seeded weeds of crops were most likely removed by hand prior to preparing the grain for use in milling, parching, malting, cooking etc. (Jones 1984, 46). There was no sign of sprouting on the grains, so it does not seem to have been charred during roasting of the malt. It is therefore probable that the plant macrofossils represent the waste from a cooking accident.

Garden pea (*Pisum sativum*) was present in the sample, and may show the use of peas as a crop. Charred legumes can represent only food waste, as they do not require parching in the processing sequence utilised in their harvest. Therefore, their only contact with a fire would be during food preparation, and/or deposition of used foodstuffs.

The remains of cereals and legumes together in the sample, could point to the waste of pottage – a dish consumed on a daily basis, by people from all backgrounds, from the medieval periods onwards (Black 2003). Parallel historical evidence for the later medieval period (Dyer 1989) shows that the actual food grains that were used varied according to what was available and were made into pottage. However, as only a single pea was recorded, it is possible that it entered the sample as a weed of the oat crop.

Hazel-nuts are valuable nutritionally, as well as being readily available. In addition, the nut shell is hard and resistant to decay ensuring its survival in some quantities. The hazelnut shells recovered are 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.

The plant macrofossils were present within a gully feature. In terms of taphonomy, it is likely that this sample represents secondary deposition of charred plant remains. This probably occurred through intentional dumping. 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.

It is likely that this sample represents a single depositional event, possibly relating to either a spoilt grain store, an accident whilst drying the grains or the remnants of a meal. The preservation of the grains tended to be very good, and it was even possible to view the hairs on the oats which indicate they were of the cultivated variety. It is probable that the wheat and barley grains as well as the identified and unidentified grasses were incorporated into the oat crop as weeds.

Oats may have been dried in small quantities over the fire to make the moisture content low enough for grinding into flour, or to help remove the outer chaff. Alternatively, they can be used whole in porridge, soups and stews.

The charred pea from the sample gave a radiocarbon date of 1525 - 1660 cal AD. The oat grain gave a radiocarbon date of 990 - 1120 cal AD. This may indicate that the sample represents a build up of material over time, with the pea being mixed into the assemblage at a later date. However, as there is only one pea in the whole sample, this may be a contaminant that became mixed with the sample during the excavation or processing stages. Other than radiocarbon dating several more of cereal grains

it is impossible to confirm which date is correct. The idea of the pea being a contaminant added during the excavation or processing stage does however seem a more plausible explanation.

Comparisons with other sites in Wales suggest that it was fairly typical for Dark Age to Medieval rural and urban sites to be consuming predominantly oats. Where good preservation has enabled identification to species level to be carried out, such as in the Dark Age samples from Capel Maelog (Caseldine, 1990, p.102) and in a 12<sup>th</sup> century sample from Loughor Castle, West Glamorgan (Carruthers, 1994), both common cultivated oat (*A. sativa*) and bristle oat (*A. strigosa*) were present. The assemblages of barley, oat and wheat are consistent with the Welsh early medieval period. Barley was common and oats were becoming an important crop plant (Greig 1991). 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.

Evidence from elsewhere in Wales suggests that oats were the main cereal of the medieval period, and remains of this crop have been found in medieval corn driers e.g. at Collfryn, Llansantffraid Deuddr, Powys (Jones and Milles 1984). There were 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.

Oats are also are frequently recovered from Saxon and 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 11<sup>th</sup> 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.

#### Conclusion

The sample produced some good environmental material, with the charcoal and the plant macrofossils from the sample. The deposit from which the sample derives (a gully), probably represents the domestic waste associated with fires.

The fuel used appears to have been exploited mainly from an oak dominant woodland, as well as a wider environment of a fen carr dominant woodland. The hazel would most likely have provided the main fuel for the fire as it provides long lasting heat at relatively high temperatures. Willow/poplar were likely to have been used as kindling material for the fire.

There are several variables that affect the reconstruction of local woodland using charcoal assemblages, however if the charcoal were to be used as a 'presence' indicator it can be assumed that as the fuel wood (in particular kindling material) is usually selected from local woodlands these charcoal remains have also made it possible to suggest that the woodland in the close vicinity to the site would have consisted of an oak dominant woodland, including the presence of hazel. A fen carr woodland which included the presence of willow/poplar is perhaps hinted at in the wider environment of the site. Willow and poplar, are trees that thrive in waterlogged and damp soils, particularly in areas close to streams or with a high water table (Stuijts 2005, 143 and Gale & Cutler 2000) and hint at a damp/wet area within close proximity to the site.

A large number of cereal grains were present, and many were recorded as indeterminate cereal, but where identification was possible there were abundant oat grains which dominated the samples, and a small amount of barley and wheat grains. There was no sign of sprouting on the grains, so it does not seem to have been charred during roasting of the malt. There were small numbers of cereal chaff and weed seeds which would have been incorporated with the grain during the harvesting process, but due to the low numbers in comparison with the grains, it is unlikely that the sample represents the disposal of crop processing debris associated with threshing and winnowing, and instead represents the fine sieve by-product which is almost fully processed and ready to be used for milling, parching, malting, cooking, etc. As the majority of the plant remains were found together with charcoal remains, it may

suggest that waste or spilt grain and pulses which did not make it into pottage 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.

In terms of taphonomy, it is likely that this sample represents secondary deposition of charred plant remains. This probably occurred through intentional dumping. 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. It is likely that this sample represents a single depositional event, possibly relating to either a spoilt grain store, an accident whilst drying the grains or the remnants of a meal. The preservation of the grains tended to be very good, and it was even possible to view the hairs on the oats which indicate they were of the cultivated variety. It is probable that the wheat and barley grains as well as the identified and unidentified grasses were incorporated into the oat crop as weeds.

It is thought to be problematic using charcoal and plant macrofossil records from archaeological sites, as they do not accurately reflect the surrounding environment. Wood was gathered before burning or was used for building which introduces an element of bias. Plant remains were also gathered foods, and were generally only burnt by accident. Despite this, plant and charcoal remains can provide good information about the landscapes surrounding the sites presuming that people did not travel too far to gather food and fuel.

#### **Recommendations**

The sample has been fully analysed, and any interpretable data has been retrieved. No further work is required on the sample.

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**Tables** 

Table III.8.1. Components of the subsamples from sample 509

Sample	509
Cut	5007
Deposit	5067
Feature type	Gully
Charcoal fgts.	4
Earthworm egg capsules	1
Plant macros. (ch.)	4
Root/rootlet fgts.	2
Sand	2
Slag fgts.	1

Table III.8.2: Complete list of taxa recovered from sample 509.

Sample	509	
Cut	5007	
Deposit	5067	
Feature type	Gully	
Sample volume (ml)	200	
LATIN BINOMIAL		COMMON NAME
Corylus avellana (fgts.)	7	Hazelnut shell fgts.
Stellaria media (L.) Vill.	1	Common chickweed
Rumex spp. L.	2	Docks
BRASSICACEAE	2	Cabbage family
Rubus spp.	1	Bramble
Potentilla erecta (L.) Raeusch.	2	Tormentil
Pisum spp. L.	1	Garden pea
POACEAE	308	Grass Family
Arrhenatherum P. Beauv.	66	False oat grass
Avena spp. L.	1053	Oats
cf. Avena strigosa	139	Bristle oat
Avena cf. sativa (large size)	1989	Oat (possible cultivated)
Avena cf. sativa (small size)	1596	Oat (possible cultivated)
Avena sativa floret bases	11	Oat floret bases

Avena sativa awn	5	Oat awns
Bromus spp.	126	Bromes
Hordeum spp.	18	Barley
<i>Triticum</i> spp.	34	Wheat
Indeterminate cereal	62	Indeterminate cereal
Unidentified	2	Unidentified

Table III.8.3. Complete list of taxa recovered from sample 509

Sample		509
Cut		5007
Deposit		5067
Feature type		Gully
No fragments		400+
Max size (mm)		23
Name	Vernacular	
Corylus avellana	Hazel	69
Salix / Populus	Willow / Poplar	31

# **Appendix III.9: List of radiocarbon results and figures to section 9** Derek Hamilton

## Table III.9.1: Radiocarbon results from Ysgol yr Hendre

Lab ID	Sample ID	Context description	Material	δ <sup>13</sup> C	Radiocarbon	Calibrated date (95%
	-	-		(‰)	age (BP)	confidence)
SUERC-41937	G2060.24.01	183: fill of oven [184]	charcoal: Corylus avellana	-27.7	1891 ±22	cal AD 65-205
SUERC-41941	G2060.28.01	187: fill of oven [184]	carbonised grain: Triticum spp.	-22.3	182 ±24	cal AD 1660–1950
SUERC-41942	G2060.35.01	169: fill of oven [166]	charcoal: Corylus avellana	-30.4	1927 ±24	cal AD 20–130
SUERC-41943	G2060.35.02	169: fill of oven [166]	charcoal: Corylus avellana	-30.1	1916 ±25	cal AD 20-130
SUERC-41944	G2060.66.01	262: fill of oven [249]	carbonised grain: Triticum spp.	-23.3	1935 ±17	cal AD 20–125
SUERC-42597	G2060.66.x	262: fill of oven [249]	charcoal: Fraxinus sp.	-25.2	2003 ±29	90 cal BC–cal AD 70
SUERC-41945	G2060.69.01	280: fill of oven [278]	charcoal: Corylus avellana	-27.8	1933 ±20	cal AD 20–125
SUERC-41946	G2060.70.01	280: fill of oven [278]	charcoal: Corylus avellana	-28.5	1949 ±20	cal AD 1-120
SUERC-41947	G2060.84.01	319: fill of pit [318]	charred hazel nutshell	-27.0	3946 ±25	2560–2350 cal BC
SUERC-41951	G2060.85.01	319: fill of pit [318]	charcoal: Corylus avellana	-29.8	4075 ±22	2840–2495 cal BC
SUERC-41952	G2060.88.01	199: fill of pit [190]	carbonised grain: Triticum spp.	-22.6	893 ±21	cal AD 1040–1215
SUERC-41953	G2060.88.02	199: fill of pit [190]	carbonised grain: Hordeum spp.	-24.8	929 ±24	cal AD 1025–1170
SUERC-41954	G2060.103.01	477: fill of oven [473]	charcoal: Corylus avellana	-26.8	1927 ±22	cal AD 20–130
SUERC-41955	G2060.103.02	477: fill of oven [473]	charcoal: Corylus avellana	-28.3	1953 ±25	20 cal BC-cal AD 130
SUERC-41956	G2060.106.01	492: fill of oven [491]	charcoal: Corylus avellana	-25.4	1926 ±25	cal AD 20–130
SUERC-41957	G2060.106.02	492: fill of oven [491]	charcoal: Corylus avellana	-24.7	1944 ±22	cal AD 1–125
SUERC-41961	G2060.109.01	136: fill of corn drier [137]	carbonised grain: Hordeum spp.	-23.9	756 ±19	cal AD 1220–1280
SUERC-42596	G2060.109.x	136: fill of corn drier [137]	carbonised grain: Hordeum spp.	-24.1	858 ±29	cal AD 1050–1260
SUERC-41962	G2060.502.01	5023: fill of oven [5009]	charcoal: Corylus avellana	-24.9	1927 ±24	cal AD 20–130
SUERC-41963	G2060.502.02	5023: fill of oven [5009]	charcoal: Corylus avellana	-27.6	1893 ±20	cal AD 65–135
SUERC-41964	G2060.508.01	5056: fill of mortuary enclosure [5004]	charcoal: Corylus avellana	-27.8	1386 ±21	cal AD 635–670
SUERC-41965	G2060.508.02	5056: fill of mortuary enclosure [5004]	charcoal: Corylus avellana	-25.9	1484 ±21	cal AD 540-635
SUERC-41966	G2060.509.01	5067: fill of gully [5007]	charred pea: Pisum spp. L.	-27.9	273 ±19	cal AD 1525–1660
SUERC-41967	G2060.509.02	5067: fill of gully [5007]	carbonised grain: Avena cf. sativa	-23.1	1001 ±24	cal AD 990–1120

## Figures to section 9



Figure III.9.1: Calibrated dates from the fill of pit [318] that contained Neolithic flake artefacts



Figure III.9.2: Calibrated dates from the fill of the square ditched mortuary enclosure [5004]



Figure III.9.3: Calibrated dates from the fill of a pit [190] containing large amounts of charred grain and a single Roman pottery sherd



Figure III.9.4: Calibrated dates from the fill of a corn drier [137] that cuts through some earlier graves



Figure III.9.5: Calibrated dates from the fill of a gully [5007] that contained large quantities of charred oats and a charred pea



Figure III.9.6: Chronological model for the activity associated with the Roman ovens at Ysgol yr Hendre. Each distribution represents the relative probability that an event occurred at some particular time. For each of the radiocarbon measurements two distributions have been plotted, one in outline, which is the result of simple radiocarbon calibration, and a solid one, which is based on the chronological model use. The other distributions correspond to aspects if the model. For example, *'start: Oven activity'* is the estimated date that activity began at this site, based on the radiocarbon dating results. The large square 'brackets' along with the OxCal keywords define the overall model exactly



Figure III.9.7: Span of activity associated with the use of the Roman ovens. The span is derived from the chronological model shown in Figure 6







Figure III.9.9: Plot showing the correlation between *Ovens* as modelled in Fig 8 and cal AD 77, the proposed construction date of the Segontium fort

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## RADIOCARBON DATING CERTIFICATE

**Appendix III.10: Radiocarbon certificates** 

RC

Laboratory Code	GU28074
Submitter	Jane Kenney Gwynedd Archaeological Trust Craig Beuno, Ffordd y Garth Bangor Gwynedd LL57 2RT
Site Reference Context Reference Sample Reference	Ysgol yr Hendre, Llanbeblig, Caernarfon, Gwynedd, North Wales 168: fill of corn drier [137] G2060.21.01
Material	Charred Grain : Oats (Avena cf. sativa)
$\delta^{13}$ C relative to VPDB	-

13 September 2012

### Result

Failed: insufficient carbon.

**N.B.** Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email <u>g.cook@suerc.gla.ac.uk</u> or Telephone 01355 270136 direct line.

Conventional age calculated by :-

Checked and signed off by :-



Date :-

Date :-





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## RADIOCARBON DATING CERTIFICATE

	13 September 2012
Laboratory Code	SUERC-41937 (GU28075)
Submitter	Jane Kenney Gwynedd Archaeological Trust Craig Beuno, Ffordd y Garth Bangor Gwynedd LL57 2RT
Site Reference Context Reference Sample Reference	Ysgol yr Hendre, Llanbeblig, Caernarfon, Gwynedd, North Wales 183: fill of oven [184] G2060.24.01
Material	Charcoal : Hazel (Corylus avellana)
$\delta^{13}$ C relative to VPDB	-27.7 ‰
Radiocarbon Age BP	$1891 \pm 22$

**N.B.** The above <sup>14</sup>C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standards, background standards and the random machine error.

The calibrated age ranges are determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1 (Bronk Ramsey 2009). Terrestrial samples are calibrated using the IntCal09 curve while marine samples are calibrated using the Marine09 curve.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email <u>g.cook@suerc.gla.ac.uk</u> or Telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :-

Date :-

Date :-

Checked and signed off by :-





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# **Calibration Plot**



Calibrated date (calBC/calAD)


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### RADIOCARBON DATING CERTIFICATE

Laboratory Code	SUERC-41941 (GU28076)
Submitter	Jane Kenney Gwynedd Archaeological Trust Craig Beuno, Ffordd y Garth Bangor Gwynedd LL57 2RT
Site Reference Context Reference Sample Reference	Ysgol yr Hendre, Llanbeblig, Caernarfon, Gwynedd, North Wales 187: fill of oven [184] G2060.28.01
Material	Charred Grain : Wheat (Triticum spp.)
$\delta^{13}$ C relative to VPDB	-22.3 ‰

13 September 2012

Radiocarbon Age BP

 $182\pm24$ 

**N.B.** The above <sup>14</sup>C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standards, background standards and the random machine error.

The calibrated age ranges are determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1 (Bronk Ramsey 2009). Terrestrial samples are calibrated using the IntCal09 curve while marine samples are calibrated using the Marine09 curve.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email <u>g.cook@suerc.gla.ac.uk</u> or Telephone 01355 270136 direct line.

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Calibrated date (calAD)



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#### RADIOCARBON DATING CERTIFICATE

Laboratory Code	SUERC-41942 (GU28077)
Submitter	Jane Kenney Gwynedd Archaeological Trust Craig Beuno, Ffordd y Garth Bangor Gwynedd LL57 2RT
Site Reference Context Reference Sample Reference	Ysgol yr Hendre, Llanbeblig, Caernarfon, Gwynedd, North Wales 169: fill of oven [166] G2060.35.01
Material	Charcoal : Hazel (Corylus avellana)
$\delta^{13}$ C relative to VPDB	-30.4 ‰

 $1927 \pm 24$ 

13 September 2012

**N.B.** The above <sup>14</sup>C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standards, background standards and the random machine error.

The calibrated age ranges are determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1 (Bronk Ramsey 2009). Terrestrial samples are calibrated using the IntCal09 curve while marine samples are calibrated using the Marine09 curve.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email <u>g.cook@suerc.gla.ac.uk</u> or Telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :-

Date :-

Date :-

Checked and signed off by :-

**Radiocarbon Age BP** 



The University of Edinburgh is a chartable body, registered in Scotland, with registration number SCO0320





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### RADIOCARBON DATING CERTIFICATE

	I I
Laboratory Code	SUERC-41943 (GU28078)
Submitter	Jane Kenney Gwynedd Archaeological Trust Craig Beuno, Ffordd y Garth Bangor Gwynedd LL57 2RT
Site Reference Context Reference Sample Reference	Ysgol yr Hendre, Llanbeblig, Caernarfon, Gwynedd, North Wales 169: fill of oven [166] G2060.35.02
Material	Charcoal : Hazel (Corylus avellana)
$\delta^{13}$ C relative to VPDB	-30.1 ‰

 $1916 \pm 25$ 

13 September 2012

**N.B.** The above <sup>14</sup>C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standards, background standards and the random machine error.

The calibrated age ranges are determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1 (Bronk Ramsey 2009). Terrestrial samples are calibrated using the IntCal09 curve while marine samples are calibrated using the Marine09 curve.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email <u>g.cook@suerc.gla.ac.uk</u> or Telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :-

Date :-

Date :-

Checked and signed off by :-

**Radiocarbon Age BP** 









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### RADIOCARBON DATING CERTIFICATE

Laboratory Code	SUERC-41944 (GU28079)
Submitter	Jane Kenney Gwynedd Archaeological Trust Craig Beuno, Ffordd y Garth Bangor Gwynedd LL57 2RT
Site Reference Context Reference Sample Reference Material	Ysgol yr Hendre, Llanbeblig, Caernarfon, Gwynedd, North Wales 262: fill of oven [249] G2060.66.01 Charred Grain : Wheat (Triticum spp.)
$\delta^{13}$ C relative to VPDB	-23.3 ‰

13 September 2012

Radiocarbon Age BP

 $1935\pm17$ 

**N.B.** The above <sup>14</sup>C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standards, background standards and the random machine error.

The calibrated age ranges are determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1 (Bronk Ramsey 2009). Terrestrial samples are calibrated using the IntCal09 curve while marine samples are calibrated using the Marine09 curve.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email <u>g.cook@suerc.gla.ac.uk</u> or Telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :-

Date :-

Date :-

Checked and signed off by :-









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### **RADIOCARBON DATING CERTIFICATE**

	*
Laboratory Code	GU28080
Submitter	Jane Kenney Gwynedd Archaeological Trust Craig Beuno, Ffordd y Garth Bangor Gwynedd LL57 2RT
Site Reference Context Reference Sample Reference	Ysgol yr Hendre, Llanbeblig, Caernarfon, Gwynedd, North Wales 262: fill of oven [249] G2060.66.02
Material	Charcoal : Willow (Salix)
$\delta^{13}$ C relative to VPDB	-

13 September 2012

Result

Failed: insufficient carbon.

N.B. Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email g.cook@suerc.gla.ac.uk or Telephone 01355 270136 direct line.

Conventional age calculated by :-

Checked and signed off by :-



Date :-

Date :-





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### RADIOCARBON DATING CERTIFICATE

	15 September 2012
Laboratory Code	SUERC-41945 (GU28081)
Submitter	Jane Kenney Gwynedd Archaeological Trust Craig Beuno, Ffordd y Garth Bangor Gwynedd LL57 2RT
Site Reference Context Reference Sample Reference	Ysgol yr Hendre, Llanbeblig, Caernarfon, Gwynedd, North Wales 280: fill of oven [278] G2060.69.01
Material	Charcoal : Hazel (Corylus avellana)
$\delta^{13}$ C relative to VPDB	-27.8 ‰

 $1933 \pm 20$ 

12 Somtombor 2012

# Radiocarbon Age BP

**N.B.** The above <sup>14</sup>C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standards, background standards and the random machine error.

The calibrated age ranges are determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1 (Bronk Ramsey 2009). Terrestrial samples are calibrated using the IntCal09 curve while marine samples are calibrated using the Marine09 curve.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email <u>g.cook@suerc.gla.ac.uk</u> or Telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :-

Date :-

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#### RADIOCARBON DATING CERTIFICATE

Laboratory Code	SUERC-41946 (GU28082)
Submitter	Jane Kenney Gwynedd Archaeological Trust Craig Beuno, Ffordd y Garth Bangor Gwynedd LL57 2RT
Site Reference Context Reference Sample Reference	Ysgol yr Hendre, Llanbeblig, Caernarfon, Gwynedd, North Wales 280: fill of oven [278] G2060.70.01
Material	Charcoal : Hazel (Corylus avellana)
$\delta^{13}$ C relative to VPDB	-28.5 ‰

 $1949 \pm 20$ 

13 September 2012

**N.B.** The above <sup>14</sup>C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standards, background standards and the random machine error.

The calibrated age ranges are determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1 (Bronk Ramsey 2009). Terrestrial samples are calibrated using the IntCal09 curve while marine samples are calibrated using the Marine09 curve.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email <u>g.cook@suerc.gla.ac.uk</u> or Telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :-

Date :-

Date :-

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**Radiocarbon Age BP** 









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#### RADIOCARBON DATING CERTIFICATE

Laboratory Code	SUERC-41947 (GU28083)
Submitter	Jane Kenney Gwynedd Archaeological Trust Craig Beuno, Ffordd y Garth Bangor Gwynedd LL57 2RT
Site Reference Context Reference Sample Reference	Ysgol yr Hendre, Llanbeblig, Caernarfon, Gwynedd, North Wales 319: fill of pit [318] G2060.84.01
Material	Charred Nutshell : Hazel (Corylus avellana)
$\delta^{13}$ C relative to VPDB	-27.0 ‰

 $3946 \pm 25$ 

13 September 2012

**N.B.** The above <sup>14</sup>C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standards, background standards and the random machine error.

The calibrated age ranges are determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1 (Bronk Ramsey 2009). Terrestrial samples are calibrated using the IntCal09 curve while marine samples are calibrated using the Marine09 curve.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email <u>g.cook@suerc.gla.ac.uk</u> or Telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :-

Date :-

Date :-

Checked and signed off by :-

**Radiocarbon Age BP** 







Calibrated date (calBC)



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#### RADIOCARBON DATING CERTIFICATE

Laboratory Code	SUERC-41951 (GU28084)
Submitter	Jane Kenney Gwynedd Archaeological Trust Craig Beuno, Ffordd y Garth Bangor Gwynedd LL57 2RT
Site Reference Context Reference Sample Reference	Ysgol yr Hendre, Llanbeblig, Caernarfon, Gwynedd, North Wales 322: fill of pit [318] G2060.85.01
Material	Charcoal : Hazel (Corylus avellana)
$\delta^{13}$ C relative to VPDB	-29.8 ‰

 $4075 \pm 22$ 

13 September 2012

**N.B.** The above <sup>14</sup>C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standards, background standards and the random machine error.

The calibrated age ranges are determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1 (Bronk Ramsey 2009). Terrestrial samples are calibrated using the IntCal09 curve while marine samples are calibrated using the Marine09 curve.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email <u>g.cook@suerc.gla.ac.uk</u> or Telephone 01355 270136 direct line.

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**Radiocarbon Age BP** 





he University of Glasgow, charity number SC004401



Calibrated date (calBC)



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#### RADIOCARBON DATING CERTIFICATE

	1
Laboratory Code	SUERC-41952 (GU28085)
Submitter	Jane Kenney Gwynedd Archaeological Trust Craig Beuno, Ffordd y Garth Bangor Gwynedd LL57 2RT
Site Reference Context Reference Sample Reference	Ysgol yr Hendre, Llanbeblig, Caernarfon, Gwynedd, North Wales 199: fill of pit [190] G2060.88.01
Material	Charred Grain : Wheat (Triticum spp.)
$\delta^{13}$ C relative to VPDB	-22.6 ‰

 $893 \pm 21$ 

13 September 2012

Radiocarbon Age BP

**N.B.** The above <sup>14</sup>C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standards, background standards and the random machine error.

The calibrated age ranges are determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1 (Bronk Ramsey 2009). Terrestrial samples are calibrated using the IntCal09 curve while marine samples are calibrated using the Marine09 curve.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email <u>g.cook@suerc.gla.ac.uk</u> or Telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :-

Date :-

Date :-

Checked and signed off by :-







Calibrated date (calAD)



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#### RADIOCARBON DATING CERTIFICATE

	· · · I · · · ·
Laboratory Code	SUERC-41953 (GU28086)
Submitter	Jane Kenney Gwynedd Archaeological Trust Craig Beuno, Ffordd y Garth Bangor Gwynedd LL57 2RT
Site Reference Context Reference Sample Reference	Ysgol yr Hendre, Llanbeblig, Caernarfon, Gwynedd, North Wales 199: fill of pit [190] G2060.88.02
Material	Charred Grain : Barley (Hordeum spp.)
$\delta^{13}$ C relative to VPDB	-24.8 ‰

 $929 \pm 24$ 

13 September 2012

**N.B.** The above <sup>14</sup>C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standards, background standards and the random machine error.

The calibrated age ranges are determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1 (Bronk Ramsey 2009). Terrestrial samples are calibrated using the IntCal09 curve while marine samples are calibrated using the Marine09 curve.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email <u>g.cook@suerc.gla.ac.uk</u> or Telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :-

Date :-

Date :-

Checked and signed off by :-

**Radiocarbon Age BP** 







Calibrated date (calAD)



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#### RADIOCARBON DATING CERTIFICATE

Laboratory Code	SUERC-41954 (GU28087)
Submitter	Jane Kenney Gwynedd Archaeological Trust Craig Beuno, Ffordd y Garth Bangor Gwynedd LL57 2RT
Site Reference Context Reference Sample Reference	Ysgol yr Hendre, Llanbeblig, Caernarfon, Gwynedd, North Wales 477: fill of oven [473] G2060.103.01
Material	Charcoal : Hazel (Corylus avellana)
$\delta^{13}$ C relative to VPDB	-26.8 ‰

 $1927 \pm 22$ 

13 September 2012

**N.B.** The above <sup>14</sup>C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standards, background standards and the random machine error.

The calibrated age ranges are determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1 (Bronk Ramsey 2009). Terrestrial samples are calibrated using the IntCal09 curve while marine samples are calibrated using the Marine09 curve.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email <u>g.cook@suerc.gla.ac.uk</u> or Telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :-

Date :-

Date :-

Checked and signed off by :-

**Radiocarbon Age BP** 









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#### RADIOCARBON DATING CERTIFICATE

	1
Laboratory Code	SUERC-41955 (GU28088)
Submitter	Jane Kenney Gwynedd Archaeological Trust Craig Beuno, Ffordd y Garth Bangor Gwynedd LL57 2RT
Site Reference Context Reference Sample Reference	Ysgol yr Hendre, Llanbeblig, Caernarfon, Gwynedd, North Wales 477: fill of oven [473] G2060.103.02
Material	Charcoal : Hazel (Corylus avellana)
δ <sup>13</sup> C relative to VPDB	-28.3 ‰

 $1953 \pm 25$ 

13 September 2012

## Radiocarbon Age BP

**N.B.** The above <sup>14</sup>C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standards, background standards and the random machine error.

The calibrated age ranges are determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1 (Bronk Ramsey 2009). Terrestrial samples are calibrated using the IntCal09 curve while marine samples are calibrated using the Marine09 curve.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email <u>g.cook@suerc.gla.ac.uk</u> or Telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :-

Date :-

Date :-

Checked and signed off by :-





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### RADIOCARBON DATING CERTIFICATE

	14 September 2012
Laboratory Code	SUERC-41956 (GU28089)
Submitter	Jane Kenney Gwynedd Archaeological Trust Craig Beuno, Ffordd y Garth Bangor Gwynedd LL57 2RT
Site Reference Context Reference Sample Reference	Ysgol yr Hendre, Llanbeblig, Caernarfon, Gwynedd, North Wales 492: fill of oven [491] G2060.106.01
Material	Charcoal : Hazel (Corylus avellana)
δ <sup>13</sup> C relative to VPDB	-25.4 ‰

 $1926 \pm 25$ 

14 Somtombor 2012

**N.B.** The above <sup>14</sup>C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standards, background standards and the random machine error.

The calibrated age ranges are determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1 (Bronk Ramsey 2009). Terrestrial samples are calibrated using the IntCal09 curve while marine samples are calibrated using the Marine09 curve.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email <u>g.cook@suerc.gla.ac.uk</u> or Telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :-

Date :-

Date :-

Checked and signed off by :-

**Radiocarbon Age BP** 





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#### RADIOCARBON DATING CERTIFICATE

	1
Laboratory Code	SUERC-41957 (GU28090)
Submitter	Jane Kenney Gwynedd Archaeological Trust Craig Beuno, Ffordd y Garth Bangor Gwynedd LL57 2RT
Site Reference Context Reference Sample Reference	Ysgol yr Hendre, Llanbeblig, Caernarfon, Gwynedd, North Wales 492: fill of oven [491] G2060.106.02
Material	Charcoal : Hazel (Corylus avellana)
$\delta^{13}$ C relative to VPDB	-24.7 ‰

13 September 2012

#### Radiocarbon Age BP

 $1944\pm22$ 

**N.B.** The above <sup>14</sup>C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standards, background standards and the random machine error.

The calibrated age ranges are determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1 (Bronk Ramsey 2009). Terrestrial samples are calibrated using the IntCal09 curve while marine samples are calibrated using the Marine09 curve.

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Conventional age and calibration age ranges calculated by :-

Date :-

Date :-

Checked and signed off by :-









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#### RADIOCARBON DATING CERTIFICATE

	r
Laboratory Code	SUERC-41961 (GU28091)
Submitter	Jane Kenney Gwynedd Archaeological Trust Craig Beuno, Ffordd y Garth Bangor Gwynedd LL57 2RT
Site Reference Context Reference Sample Reference	Ysgol yr Hendre, Llanbeblig, Caernarfon, Gwynedd, North Wales 136: fill of corn drier [137] G2060.109.01
Material	Charred Grain : Barley (Hordeum spp.)
$\delta^{13}$ C relative to VPDB	-23.9 ‰

13 September 2012

#### Radiocarbon Age BP

 $756\pm19$ 

**N.B.** The above <sup>14</sup>C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standards, background standards and the random machine error.

The calibrated age ranges are determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1 (Bronk Ramsey 2009). Terrestrial samples are calibrated using the IntCal09 curve while marine samples are calibrated using the Marine09 curve.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email <u>g.cook@suerc.gla.ac.uk</u> or Telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :-

Date :-

Date :-

Checked and signed off by :-









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#### RADIOCARBON DATING CERTIFICATE

	1
Laboratory Code	SUERC-41962 (GU28092)
Submitter	Jane Kenney Gwynedd Archaeological Trust Craig Beuno, Ffordd y Garth Bangor Gwynedd LL57 2RT
Site Reference Context Reference Sample Reference	Ysgol yr Hendre, Llanbeblig, Caernarfon, Gwynedd, North Wales 5023: fill of oven [5009] G2060.502.01
Material	Charcoal : Hazel (Corylus avellana)
$\delta^{13}$ C relative to VPDB	-24.9 ‰

 $1927 \pm 24$ 

13 September 2012

**N.B.** The above <sup>14</sup>C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standards, background standards and the random machine error.

The calibrated age ranges are determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1 (Bronk Ramsey 2009). Terrestrial samples are calibrated using the IntCal09 curve while marine samples are calibrated using the Marine09 curve.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email <u>g.cook@suerc.gla.ac.uk</u> or Telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :-

Date :-

Date :-

Checked and signed off by :-

**Radiocarbon Age BP** 









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#### RADIOCARBON DATING CERTIFICATE

Laboratory Code	SUERC-41963 (GU28093)
Submitter	Jane Kenney Gwynedd Archaeological Trust Craig Beuno, Ffordd y Garth Bangor Gwynedd LL57 2RT
Site Reference Context Reference Sample Reference	Ysgol yr Hendre, Llanbeblig, Caernarfon, Gwynedd, North Wales 5023: fill of oven [5009] G2060.502.02
Material	Charcoal : Hazel (Corylus avellana)
$\delta^{13}$ C relative to VPDB	-27.6 ‰

 $1893 \pm 20$ 

13 September 2012

**N.B.** The above <sup>14</sup>C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standards, background standards and the random machine error.

The calibrated age ranges are determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1 (Bronk Ramsey 2009). Terrestrial samples are calibrated using the IntCal09 curve while marine samples are calibrated using the Marine09 curve.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email <u>g.cook@suerc.gla.ac.uk</u> or Telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :-

Date :-

Date :-

Checked and signed off by :-

**Radiocarbon Age BP** 









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### RADIOCARBON DATING CERTIFICATE

Ĩ
SUERC-41964 (GU28094)
Jane Kenney Gwynedd Archaeological Trust Craig Beuno, Ffordd y Garth Bangor Gwynedd LL57 2RT
Ysgol yr Hendre, Llanbeblig, Caernarfon, Gwynedd, North Wales 5056: fill of mortuary enclosure [5004] G2060.508.01
Charcoal : Hazel (Corylus avellana)
-27.8 ‰

13 September 2012

#### Radiocarbon Age BP

 $1386\pm21$ 

**N.B.** The above <sup>14</sup>C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standards, background standards and the random machine error.

The calibrated age ranges are determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1 (Bronk Ramsey 2009). Terrestrial samples are calibrated using the IntCal09 curve while marine samples are calibrated using the Marine09 curve.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email <u>g.cook@suerc.gla.ac.uk</u> or Telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :-

Date :-

Date :-

Checked and signed off by :-




# **Calibration Plot**



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#### RADIOCARBON DATING CERTIFICATE

Laboratory Code	SUERC-41965 (GU28095)
Submitter	Jane Kenney Gwynedd Archaeological Trust Craig Beuno, Ffordd y Garth Bangor Gwynedd LL57 2RT
Site Reference Context Reference Sample Reference	Ysgol yr Hendre, Llanbeblig, Caernarfon, Gwynedd, North Wales 5056: fill of mortuary enclosure [5004] G2060.508.02
Material	Charcoal : Hazel (Corylus avellana)
$\delta^{13}$ C relative to VPDB	-25.9 ‰

13 September 2012

# Radiocarbon Age BP $1484 \pm 21$

**N.B.** The above <sup>14</sup>C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standards, background standards and the random machine error.

The calibrated age ranges are determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1 (Bronk Ramsey 2009). Terrestrial samples are calibrated using the IntCal09 curve while marine samples are calibrated using the Marine09 curve.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email <u>g.cook@suerc.gla.ac.uk</u> or Telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :-

Date :-

Date :-

Checked and signed off by :-





# **Calibration Plot**





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#### RADIOCARBON DATING CERTIFICATE

Laboratory Code	SUERC-41966 (GU28096)
Submitter	Jane Kenney Gwynedd Archaeological Trust Craig Beuno, Ffordd y Garth Bangor Gwynedd LL57 2RT
Site Reference Context Reference Sample Reference	Ysgol yr Hendre, Llanbeblig, Caernarfon, Gwynedd, North Wales 5067: fill of gully [5007] G2060.509.01
Material	Charred Pea : Garden pea (Pisum spp. L.)
$\delta^{13}$ C relative to VPDB	-27.9 ‰

 $273 \pm 19$ 

13 September 2012

# Radiocarbon Age BP

**N.B.** The above <sup>14</sup>C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standards, background standards and the random machine error.

The calibrated age ranges are determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1 (Bronk Ramsey 2009). Terrestrial samples are calibrated using the IntCal09 curve while marine samples are calibrated using the Marine09 curve.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email <u>g.cook@suerc.gla.ac.uk</u> or Telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :-

Date :-

Date :-

Checked and signed off by :-





he University of Glasgow, charity number SC004401

# **Calibration Plot**



Calibrated date (calAD)



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#### RADIOCARBON DATING CERTIFICATE

	1
Laboratory Code	SUERC-41967 (GU28097)
Submitter	Jane Kenney Gwynedd Archaeological Trust Craig Beuno, Ffordd y Garth Bangor Gwynedd LL57 2RT
Site Reference Context Reference Sample Reference	Ysgol yr Hendre, Llanbeblig, Caernarfon, Gwynedd, North Wales 5067: fill of gully [5007] G2060.509.02
Material	Charred Grain : Oats (Avena cf. sativa)
$\delta^{13}$ C relative to VPDB	-23.1 ‰

 $1001 \pm 24$ 

13 September 2012

Radiocarbon Age BP

**N.B.** The above <sup>14</sup>C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standards, background standards and the random machine error.

The calibrated age ranges are determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1 (Bronk Ramsey 2009). Terrestrial samples are calibrated using the IntCal09 curve while marine samples are calibrated using the Marine09 curve.

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Conventional age and calibration age ranges calculated by :-

Date :-

Date :-

Checked and signed off by :-





# **Calibration Plot**



Calibrated date (calAD)



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#### RADIOCARBON DATING CERTIFICATE

Laboratory Code	SUERC-42596 (GU28510)
Submitter	Jane Kenney Gwynedd Archaeological Trust Craig Beuno, Ffordd y Garth Bangor
	Gwynedd LL57 2RT
Site Reference Context Reference Sample Reference	Ysgol yr Hendre, Llanbeblig, Caernarfon, Gwynedd, North Wales G2060 109 (136)
Material	Grain : Barley
$\delta^{13}$ C relative to VPDB	-24.1 ‰
Radiocarbon Age BP	$858 \pm 29$

26 October 2012

**N.B.** The above <sup>14</sup>C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standards, background standards and the random machine error.

The calibrated age ranges are determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1 (Bronk Ramsey 2009). Terrestrial samples are calibrated using the IntCal09 curve while marine samples are calibrated using the Marine09 curve.

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Conventional age and calibration age ranges calculated by :-

Date :-

Date :-

Checked and signed off by :-





# **Calibration Plot**



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#### **RADIOCARBON DATING CERTIFICATE**

	26 October 2012
Laboratory Code	SUERC-42597 (GU28511)
Submitter	Jane Kenney Gwynedd Archaeological Trust Craig Beuno, Ffordd y Garth Bangor Gwynedd LL57 2RT
Site Reference Context Reference Sample Reference	Ysgol yr Hendre, Llanbeblig, Caernarfon, Gwynedd, North Wales G2060 66 (262) [249]
Material	Charcoal : Ash
δ <sup>13</sup> C relative to VPDB	-25.2 ‰

 $2003 \pm 29$ 

The above <sup>14</sup>C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed N.B. at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standards, background standards and the random machine error.

The calibrated age ranges are determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1 (Bronk Ramsey 2009). Terrestrial samples are calibrated using the IntCal09 curve while marine samples are calibrated using the Marine09 curve.

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Conventional age and calibration age ranges calculated by :-

Date :-

Date :-

Checked and signed off by :-

**Radiocarbon Age BP** 





# **Calibration Plot**



Calibrated date (calBC/calAD)

#### APPENDIX IV: DESCRIPTIONS OF PHASE 3 EVALUATION TRENCHES Cat Rees

#### Trench 1, plot B

(PRN 31084, SH 49188 62400) Trench 1 measured 2m x 20m and natural was reached at an average depth of approximately 0.45m.

Two features were identified within this trench: [1000] a north-east to south-west orientated ditch and [1002] a small pit. Both of these features were located at the south eastern end of Trench 1.

Feature [1000] was a linear feature which ran the full width of the trench. It was approximately 1.00 - 1.10m wide and survived to a depth of 0.20m. The feature had gradually sloping sides and an irregular, slightly concave base. The orientation of the feature precludes its function as being drainage and this feature is interpreted as an old field boundary.

Ditch [1000] contained a single grey-brown clay-silt fill (1001). This fill contained occasional rounded and subrounded stone and very occasional small charcoal flecks. The formation of this material was interpreted as being through natural silting rather than through deliberate backfilling. Fill (1001) did not contain any artefactual material and is therefore undatable. It was however noted by the excavator that despite the presence of a reasonable amount of post-medieval pottery in the overlying top and subsoil none was present within the ditch fill hinting at the possibility of an earlier date.

Feature [1002] was a small sub-rectangular pit with rounded corners. The feature survived to a depth of 0.12m and measured  $0.34m \ge 0.27m$ . A single fill (1003) was contained within the feature. This fill was similar to fill (1001) and contained no artefactual material.

#### Trench 2, plot B

Trench 2 measured 2m x 20m and natural was reached at an average depth of approximately 0.40m.

No archaeological features were identified within Trench 2.

#### Trench 3, plot B

Trench 3 measured 2m x 20m and natural was reached at an average depth of approximately 0.40m.

Two features were identified within Trench 3; a large sub-oval pit [3004] and a flue structure [3007]. The trench was extended to fully expose these features, and the oval pit and flue structure were shown to be elements of the same kiln/oven structure attributed the group number [3013] (PRN 34065, SH 49039 62482).

The structure was cut as a single event and contained two distinct sections – a sub-circular oven or kiln Plot And a much larger sub-oval stoke pit. The kiln area was evidently heat effected and this zone extended out into the flue of the structure. The stoke area showed no evidence of burning. A layer of charcoal (3006) was present within the lower level of the kiln and spread out approximately half way into the stoke hole. This material is thought to represent the cleaning out of the final burning event of the structure and a sample of this deposit was taken. This was overlain by a layer of collapsed burnt clay from the kiln (3012). Both structural elements were filled by a series of silting deposits of mixed re-deposited natural.

#### Trench 4, plot B

Trench 4 measured 2m x 20m and natural was reached at an average depth of approximately 0.45m.

Three archaeological features were identified within Trench 4. Feature [4003] (PRN 34070) was a narrow eastwest orientated ditch located at the south western end of Trench 4. The width of the feature varied between 0.42 and 0.45m in width and ran the full width of the trench. Feature [4003] had a shallow concave profile and survived to a maximum depth of 0.10m. The feature contained a single fill mid grey-brown clay silt fill (4004). This feature was thought to be a drainage ditch, but the later excavation showed it to be curving gully [5007] discussed in the main text.

Features [4005] and [4011] were much more substantial ditch features located to the northeast of [4003]. When the original trench was cut it was unclear how these features related to each other and the trench was extended. This proved that the features were in fact a single feature – a ditch with a right-angled corner. The ditch feature contained a series of silting fills indicative of the feature having been left open over a prolonged period of time.

No artefactual material was recovered. Later excavation proved that this was the corner of the large mortuary enclosure [5004].

A further feature was identified in the trench extension but it is not possible to illuminate further as to its form or function. This was as it was not fully exposed in plan due to the trenches position and was unexcavated.

#### Trench 5, plot A

Trench 5 measured 3m x 25m and natural was reached at an average depth of approximately 0.5m.

This trench was positioned to investigate the two square ditched features identified through aerial photography and geophysical survey. These two features were clearly identified along with a land drain which was also visible on the geophysical survey. In addition to these known features ten possible grave features were identified, three of which lay within a square ditched feature. All these features were investigated and recorded in phase 4; mortuary enclosures [108] and [109] with surrounding graves (PRN 34043, 24774, 34044).

#### Trench 6, plot A

This trench was not excavated.

#### Trench 7, plot A

Trench 7 measured 10.00m x 10.00m and natural was reached at an average depth of approximately 0.45m. The trench was located so as to encompass a portion of the trench excavated during phase 2 and to investigate a geophysical anomaly (PRN 29301). The feature identified through geophysical survey was not visible following the opening of Trench 7 and it is thought that two large glacial erratics were responsible for erroneous readings.

Two ditch features were excavated in Trench 7: one a very shallow northeast – southwest aligned linear containing no dating evidence, the other an irregular northwest-southeast aligned linear containing postmedieval material. This larger feature is believed to have been an old field boundary, possibly in the form of a hedgerow. The feature identified as a possible ditch terminus in the previous excavation was shown to be a pit.

#### Trench 8, plot C

Trench 8 measured 2m x 20m and natural was reached at an average depth of approximately 0.5m.

A number of features including a three course brick wall were identified during the excavation of this trench – all of which were proven to be of modern (later than 1918) in date. These features are thought to be associated with the greenhouses shown on the 1918 ordnance survey map or with the demolition of these structures.

#### **APPENDIX V: DETAILS OF FEATURES**

#### Mortuary enclosures

#### Cut number Fills 113 108 **Description of cut** Same as [5005] in Phase 03 (trenching). Rectangular ditch enclosure with sharp turning rounded corners, steep sides and flat base. Entrance was to the E. it contained three evenly spaced graves, [115], [117] and [119]. Similar feature [109] was 9m approx to the E Notes on fills 113, Firm/friable mid orange brown clay-sand-silt with moderately frequent poorly sorted sub-rounded stones (<0.2m). Contained only one fill which suggests deliberate backfilling Cut number Fills 109 130.110 Description of cut Square with entrance to the E. 90 degree turn but rounded corners.Gradually steep corners and flat/slightly concave base. Contains single central grave [111]. Notes on fills 130, firm grey clay silt and frequent stones was only seen in the southern E-W ditch and was inconsistant in clarirty with natural and main fill 110 - Generally firm but loose in places mid brown clay silt with rounded and sub-angular stones Fills Cut number 152 151 **Description of cut** Rectangular in plan with sharp turning rounded corners with concave sides and flat base. Contains central grave 455. Was cut by grave 470. Also cut by modern football club hut/ uncertain if boundary ditch 154 cut 152 or the other way round. Notes on fills One fill of dark brown silt sand, suggests deliberate backfilling. Cut number Fills 5040, 5042, 5041, 5045, 5061, 5062 5003 **Description of cut** Square in plan with sharp turn at the corners. The sides were flat and steep, with a flat slightly undulating base. Cut 5043 relects the E entrance to 5003. The ditch was re-cut with an entrance in the W as well as the E side, this re-cut was detected elswhere around 5003 where brown stoney deposits were seen Notes on fills Fill 5041 had lenses of very dark grey silt which appeared organic and may have been caused by timbers but no pattern could be seen. Cut number Fills 5004 5051, 5054, 5057, 5055, 5058, 5056, 5063 **Description of cut** Square in plan with sharp turning rounded corners with steep almost verticle sides and a flat base. This mortuary enclosure had a E entrance and one central grave [5006]. [5052] was a possible re-cut. Notes on fills 5051: primary silting. 5063: stones dumped randomly at the base at the E side of the enclosure. 5054: secondary silting, 5058: brown silt in NW terminal. 5056: charcoal layer in NW terminal. 5055, 5057: main fill. 5053: fill of possible recut. Graves Grave Cut 111

Sample No.	Find Nos.	Orientation	Length	Breath	Depth
016, 017	004	ENE to WSW	2.17m	0.86m	0.4m
Primary Fill	Primary f	ill description			
128	Dark buff	brown, slightly sandy grave	l silt with rounded stone	s 0.1-0.25m.	
Secondary Fill	Secon	dary fill description			
112	Firm r	nid brown clay silt with rou	nded and sub-rounded st	tones	
Tertiary Fill	Tertiary	fill description			
Stone Lining No.	Stone lin	ing description			
Notes: Elongated of	val with vertical/	steep sides and a flat, slight	ly concave, base. Fill 12	8 - large rounded stones	formed a layer at

Notes: Elongated oval with vertical/steep sides and a flat, slightly concave, base. Fill 128 - large rounded stones formed a layer at the bottom of the grave. Within enclosure 109.

Grave Cut	115				
Sample No.	Find Nos.	Orientation	Length	Breath	Depth
011, 012	37	ENE to WSW	1.9m	0.7	0.34
Primary Fill	Primary f	ill description			
116	Friable mi	d-yellow brown silt sand wi	th frequent gravel and o	ccasional sub-rounded st	iones.
Secondary Fill	Secon	dary fill description			

127 Firm/friable mid grey brown sand silt with moderately frequent poorly sorted rounded stones, with occasional coal. **Tertiary Fill** Tertiary fill description Stone Lining No. Stone lining description Notes: Stones found within the fill were very similar to those found in the natural. The irregularities in the sides and the base were due to the stony nature of the natural. With graves 117 and 119 within enclosure 108. 117 **Grave Cut** Sample No. Find Nos. Orientation Length Breath Depth 010 006 ENE to WSW 2.08m 0.75m 0.49m **Primary Fill** Primary fill description Firm mid grey brown sand silt with moderately frequent and poorly sorted sub rounded stones. 118 Secondary Fill Secondary fill description Tertiary fill description **Tertiary** Fill Stone Lining No. Stone lining description Notes: The base slopes to the north. The irregularities in the sides and the base were due to the stony nature of the natural. A concentration of fairly large stones in the base. With graves 115 and 119 within enclosure 108. **Grave Cut** 119 Sample No. Find Nos. Orientation Length Breath Depth 009 ENE to WSW 0.65m 0.4m 1.6m **Primary Fill** Primary fill description 120 Firm mid grey brown sand silt with moderately frequent sub-rounded and poorly sorted stones Secondary Fill Secondary fill description Tertiary fill description **Tertiary Fill** Stone Lining No. Stone lining description Notes: With graves 115 and 117 within enclosure 108. 140 **Grave Cut** Sample No. Find Nos. Orientation Length Breath Depth 19 ENE to WSW 1.7m 0.9 0.20 **Primary Fill** Primary fill description 139 Friable light grey brown silt with stones/grit. Secondary Fill Secondary fill description **Tertiary Fill Tertiary fill description** Stone Lining No. Stone lining description Notes: Within fill 138 were small mammal bones found high up in the grave - probably modern. Grave was irregular in plan and generally irregular.

Grave Cut	144								
Sample No.	Find Nos.	Orientation	Length	Breath	Depth				
		NE to SW	1.84m	0.5m (max.)	0.3m				
Primary Fill	Primary fill description								
333	Stones mea	Stones measuring 0.2mx0.1m to 0.15x0.1m lying on the bottom of the grave.							
Secondary Fill	Secon	dary fill description							
145									
Ternary Fill	Ternary	nii description							
Stone Lining No.	Stone III	ling description							
Grave Cut	146								
Sample No.	Find Nos.	Orientation	Length	Breath	Depth				
20	15	ENE to WSW	2.2m	0.9-0.7m	0.22m				
Primary Fill	Primary f	ill description							
453	Stones. Par	rtial stone lining in the NE	half on both sides of the	cut. Some form a cut edge	others are laid				
	against it.								
Secondary Fill	Secon	dary fill description							
147	Friable	e medium brown clay silt, s	some stones and gravel.						
Tertiary Fill	Tertiary	fill description							
Stone Lining No.	Stone lin	ning description							
453 (As primary fill	l)								
Grave Cut	148								
Sample No.	Find Nos.	Orientation	Length	Breath	Depth				
025	11	NE to SW	2.05m	0.65m	0.35				
Primary Fill	Primary f	ill description							
149	Firm mid g	grey brown clay silt with oc	casional poorly sorted su	b-rounded stones and more	derately				
	frequent sr	nall gravel (similar to the n	atural).						
Secondary Fill	Secon	dary fill description							
150	Firm r	nid orange brown silt sand	with occasional small sul	b-rounded stones (similar	to 149 and				
	natura	1).							
Tertiary Fill	Tertiary	fill description							
Stone Lining No.	Stone lin	ning description							

<b>Grave Cut</b> <b>Sample No.</b>	163 Find Nos.	<b>Orientation</b> NE to SW	Length	Breath	<b>Depth</b>				
Primary Fill 170	Primary fill description Firm mid brown vellow sand clay silt with occational small sub-rounded stones.								
Secondary Fill	Secon	Secondary fill description							
171	Firm mid brown clay silt with occational poorly sorted sub-rounded stones.								
Tertiary Fill	Tertiary	Tertiary fill description							
Notes: Primary fill	stone III is slumped natur	al from the northern end of	the grave.						
	170		C						
Grave Cut Sample No	172 Find Nos	Orientation	Length	Breath	Denth				
042	1 mu 1 (03.	E to W	2.4m	0.77m	0.32m				
Primary Fill	Primary f	ill description							
174	Firm mid o	brange brown clay sand silt	t with frequent large sub r	ounded stones (<0.3m)	with slightly				
Secondary Fill	Smaller sto Secon	dary fill description							
175	Firm g	grey brown sand silt with o	ccational sub-rounded sto	ones.					
Tertiary Fill	Tertiary	fill description							
174 Stone Lining No.	Stone III	nng description 74 were in the base and we	re concentrated around th	e centre of the cut and	did not form a				
174	lining bu	t may have been used as pa	acking around the body.	e centre of the cut and t	ald not form a				
Grave Cut	176								
Sample No.	Find Nos.	Orientation	Length	Breath	Depth				
023	39	ENE to WSW	2.0m	0.75m	0.2m				
Primary Fill	Primary f	ill description	. 1	1.					
180 Secondary Fill	Firm mid g	dery brown sand silt moder	ately frequent sub-rounde	ed stones.					
Tertiary Fill	Tertiary	fill description							
Stone Lining No.	Stone lir	ning description							
Grave Cut	177								
Sample No.	Find Nos.	Orientation	Length	Breath	Depth				
30	D	NE to SW	1.9m	0.8m	0.23m				
Primary Fill	Stones - se	ill description							
Secondary Fill	Stones - se	darv fill description							
189	Friable	e light grey brown silt with	grit and stones						
Tertiary Fill	Tertiary	fill description							
Stone Lining No.	Stone lin	ning description	east end on both sides of	the cut measuring from	0.1mv $0.1$ m to				
559 as printary ini	0.2mx0.3	3m	cust chu on both sides of	the cut measuring non	10.1111.0.1111.00				
Crove Cut	178								
Sample No.	Find Nos.	Orientation	Length	Breath	Depth				
D	Die	NE to SW	2.2m	0.8m	0.23m				
197	Friable mi	ill description	me gravel and small ston	es					
Secondary Fill	Secon	dary fill description	sine graver and sman ston	03.					
Tertiary Fill	Tertiary	fill description							
Stone Lining No.	Stone lin	ning description	. 1.64 1		4 1 64				
No number given	cut (0.35	m from the edge of the cut	). There was one stone at	the south end as well as	s two stones along				
Notes: A large rock and irregular in plan	was embedded i	in the east side of the cut w	ith some other rocks at th	e north and south ends	of the grave. Irregular sides				
Grave Cut	179								
Sample No.	Find Nos.	Orientation	Length	Breath	Depth				
-		NE to SW	2.1m	0.9m	0.18m				
Primary Fill	Primary f	ill description	rit and stones						
198 Secondary Fill	Friable ligi	dary fill description	nt and stones.						
Tertiary Fill	Tertiary	fill description							
Stone Lining No.	Stone lir	ning description							
Notes: Irregular sha	aped cut.								
Grave Cut	186								
Sample No.	Find Nos.	Orientation	Length	Breath	Depth				
Primary Fill	Primary f	ill description	1.0111	0.32111	0.2111				
100	F		1 11 1 1 1						

 188
 Firm mid brown sand silt with occational small sub-rounded stones.

 Secondary Fill
 Secondary fill description

#### Tertiary Fill Stone Lining No. Tertiary fill description Stone lining description

Notes: Quite small and narrow compared to most of the other graves (poss. child burial). Close to and same orientation as [352]

Grave Cut	200					
Sample No.	Find Nos.	Orientation	Length	Breath	Depth	
		ENE to WSW	2.25m	0.92m	0.4m	
Primary Fill	Primary f	ill description				
203	Partial stone lining of probable grave. Sub rounded stones measuring <0.25m within a matrix of firm					
	dark brow	n clay silt with occational si	nall stones. See stone lin	ig description.		
Secondary Fill	Secor	dary fill description				
204	Firm	mid grey brown clay silt sna	d with frequent small gra	avel and small stones.		
Tertiary Fill	Tertiary	fill description				
Stone Lining No.	Stone lin	ning description				
203-primary fill	Fairly in	regular stones pressed again	nst the sides of the cut an	d stacked up to 2 course	es high. Only the	
N	cast and	west sides were filled.				

Notes: Due to the precarious nature of the lining it was suggested (by Frances Lynch) that it was formed by dropping stones down the sides once the coffin was in place.

Grave Cut	202 (possible	e grave)				
Sample No.	Find Nos.	Orientation	Length	Breath	Depth	
36	29, 38	N to S	0.8m	0.45m	0.15m	
Primary Fill	Primary fi	ill description				
201	Friable dark grey brown silt grit and small stones					
Secondary Fill	Secon	dary fill description				
Tertiary Fill	Tertiary f	fill description				
Stone Lining No.	Stone lin	ing description				
Notes: Irregular on	the east side with	n slight more sloping sides	than the other steep sided	graves. Feature is small	ll and on a different	
orientation to the gr	aves close by but	t is near to the enclosure 1	08.			

Grave Cut	209								
Sample No.	Find Nos.	Orientation	Length	Breath	Depth				
		ENE to WSW	2.5m	0.82m	0.15m				
Primary Fill	Primary f	ill description							
208	Compact dark brown silt sand								
Secondary Fill	Secon	Secondary fill description							
Tertiary Fill	Tertiary fill description								
Stone Lining No.	Stone lining description								
_									
Grave Cut	212								
Sample No.	Find Nos.	Orientation	Length	Breath	Depth				
039	31	NE to SW	2.32m	0.85m	0.57m				
Primary Fill	Primary f	ill description							
334	Stones-see	stone lining.							
Secondary Fill	Secon	dary fill description							
213	Friable	e medium orange brown sil	t with grit and stones.						
Tertiary Fill	Tertiary	fill description							
Stone Lining No.	Stone lin	ing description							
334	Partial st	one lining of grave in the S	W half of the feature on t	he base and around the edge	e of the cut.				
	One large	e stone at the base of the gr	ave at the south side and	a line of stones laid at the ba	ase of the				
	north side	e							
Grave Cut	214								
Sample No.	Find Nos.	Orientation	Length	Breath	Depth				
040		NE to SW	2.2m	0.7m	0.3m				
Primary Fill	Primary f	ill description							
216	Rounded s	tones $0.1m$ to $0.15m$ - see s	stone lining description						
Secondary Fill	Secon	dary fill description							
215	Very f	irm mixed mid brown yelle	ow clay silt and redeposite	ed natural					
Tertiary Fill	Tertiary	fill description							
Stone Lining No.	Stone lin	ing description							
216	A line of	rounded stones running al	ong the bottom of the sou	th edge of the grave cut. The	ere were				
	fewer sto	nes along the north edge w	hich were also more rand	omly arranged.					
Grave Cut	219								
Sample No.	Find Nos.	Orientation	Length	Breath	Depth				
044	1 110 1 (05)	NE to SW	2.3m	0.75m at section	0.5m				
Primary Fill	Primary f	ill description							
229	Stone linin	g							
Secondary Fill	Secon	o dary fill description							
220	Firm r	nid brown sand clay silt wi	th rounded and subrounded	ed stones.					
Tertiary Fill	Tertiary	fill description							
Stone Lining No.	Stone lin	ing description							
229-primary fill	Stone lin	ing along SE edge of cut	tones along the oppsite eq	lge were fewer and more rat	ndom stones				
P	stone mining along 5D edge of edit, stones along the oppsite edge were rewer and more random stones.								

Notes: Cut by 221. Quite a large deep grave.

	225					
Sample No.	Find Nos.	Orientation	Length	Breath	Depth	
048		NE to SW	2.1m	0.8m	0.4m	
Primary Fill	Primary fi	Il description	sub rounded stones 10.2	000/		
224 Secondary Fill	Secondary fill description					
Tertiary Fill	Secondary in description Tortiary fill description					
Stone Lining No.	Stone lin	ing description				
No number given	Stone pac	king at east end				
Notes: Cut by pit 22		0				
Grave Cut	225					
Sample No.	Find Nos.	Orientation	Length	Breath	Depth	
045 Duimony Fill	Duimour fi	ENE to WSW	2.54m	0.5m to 0.7m	0.18m	
332	Small and r	n description medium size stones measur	ing 0.3mx0.15 to 0.1x0.1	lm		
Secondary Fill	Sinan and I	darv fill description	ing 0.5mx0.15 to 0.1x0.1			
226	Friable	mid orange brown clay sil	t with grit stones and lar	ge stones.		
<b>Tertiary Fill</b>	Tertiary f	ill description		-		
Stone Lining No.	Stone lin	ing description				
332-primary fill	Medium s	size stones were laid along	the edge of the cut. Most	tly along the south edge but	also some	
N. ( 171 11	quite larg	e stones on the north side,	but not as many.			
Notes: The side wer	e sloping rather t	than steep.				
Grave Cut	227					
Sample No.	Find Nos.	Orientation	Length	Breath	Depth	
043,046		E to W	2.60m	0.76m	0.61m	
Primary Fill	Primary fi	ll description				
476	Compact m	nid grey-brown loamy silt w	ith frequent small stones	s and remnant of cobbles ale	ong edges of cut.	
Secondary Fill	Second	dary fill description				
228	Compa	act dark brown silt sand wit	h subrounded stones			
Lertiary Fill Stone Lining No	Stone lin	ing description				
No number given (n	art of Cobbles c	oncentrated along edges of	f the cut			
228)		concentrated along edges of	the cut.			
Notes: Same as 475	. This grave seen	ns not to have been fully ex	cavated originally and w	as re-excavated as 475. The	e measurements given	
are for	-	•			-	
475						
a a (	220					
Grave Cut	230 Find Nos	Orientation	Longth	Breath	Donth	
Grave Cut Sample No.	230 Find Nos.	<b>Orientation</b> NE to SW	Length 2 05m	Breath	<b>Depth</b> 0.43m	
Grave Cut Sample No. 049 Primary Fill	230 Find Nos. 09 Primary fi	Orientation NE to SW Il description	Length 2.05m	Breath 0.55m	<b>Depth</b> 0.43m	
Grave Cut Sample No. 049 Primary Fill 231	230 Find Nos. 09 Primary fi Firm mid g	<b>Orientation</b> NE to SW <b>Il description</b> rey orange brown clay silt :	<b>Length</b> 2.05m sand with moderate frequ	<b>Breath</b> 0.55m lent poorly sorted sub-round	<b>Depth</b> 0.43m ded stones.	
Grave Cut Sample No. 049 Primary Fill 231 Secondary Fill	230 Find Nos. 09 Primary fi Firm mid g Second	<b>Orientation</b> NE to SW <b>Il description</b> rey orange brown clay silt a <b>dary fill description</b>	<b>Length</b> 2.05m sand with moderate frequ	<b>Breath</b> 0.55m uent poorly sorted sub-round	<b>Depth</b> 0.43m ded stones.	
Grave Cut Sample No. 049 Primary Fill 231 Secondary Fill Tertiary Fill	230 Find Nos. 09 Primary fi Firm mid g Second Tertiary f	Orientation NE to SW Il description rey orange brown clay silt : dary fill description ïll description	<b>Length</b> 2.05m sand with moderate frequ	Breath 0.55m lent poorly sorted sub-round	<b>Depth</b> 0.43m ded stones.	
Grave Cut Sample No. 049 Primary Fill 231 Secondary Fill Tertiary Fill Stone Lining No.	230 Find Nos. 09 Primary fi Firm mid g Second Tertiary f Stone lin	Orientation NE to SW Il description rey orange brown clay silt : dary fill description ill description ing description	Length 2.05m sand with moderate frequ	Breath 0.55m aent poorly sorted sub-round	<b>Depth</b> 0.43m ded stones.	
Grave Cut Sample No. 049 Primary Fill 231 Secondary Fill Tertiary Fill Stone Lining No. Notes: There was a	230 Find Nos. 09 Primary fi Firm mid g Second Tertiary f Stone lim slight concentrac	Orientation NE to SW Il description rey orange brown clay silt : dary fill description fill description ing description etion of larger stones at the	<b>Length</b> 2.05m sand with moderate frequ base but they did not for	Breath 0.55m aent poorly sorted sub-round m a lining	<b>Depth</b> 0.43m ded stones.	
Grave Cut Sample No. 049 Primary Fill 231 Secondary Fill Tertiary Fill Stone Lining No. Notes: There was a Grave Cut	230 Find Nos. 09 Primary fi Firm mid g Second Tertiary f Stone lim slight concentrac 234 (Recorde	Orientation NE to SW Il description rey orange brown clay silt : dary fill description ill description ing description etion of larger stones at the	Length 2.05m sand with moderate frequ base but they did not for	Breath 0.55m aent poorly sorted sub-round m a lining	<b>Depth</b> 0.43m ded stones.	
Grave Cut Sample No. 049 Primary Fill 231 Secondary Fill Tertiary Fill Stone Lining No. Notes: There was a Grave Cut Sample No.	230 Find Nos. 09 Primary fi Firm mid g Second Tertiary f Stone lim slight concentrac 234 (Recorde Find Nos.	Orientation NE to SW Il description rey orange brown clay silt a dary fill description fill description ing description etion of larger stones at the ed under another number) Orientation	Length 2.05m sand with moderate frequ base but they did not for Length	Breath 0.55m aent poorly sorted sub-round m a lining Breath	Depth 0.43m ded stones.	
Grave Cut Sample No. 049 Primary Fill 231 Secondary Fill Tertiary Fill Stone Lining No. Notes: There was a Grave Cut Sample No. Primary Fill	230 Find Nos. 09 Primary fi Firm mid g Second Tertiary f Stone lim slight concentrac 234 (Recorde Find Nos. Primary fi	Orientation NE to SW Il description rey orange brown clay silt a dary fill description ing description ing description etion of larger stones at the ed under another number) Orientation Il description	Length 2.05m sand with moderate frequ base but they did not for Length	Breath 0.55m aent poorly sorted sub-round m a lining Breath	Depth 0.43m ded stones. Depth	
Grave Cut Sample No. 049 Primary Fill 231 Secondary Fill Tertiary Fill Stone Lining No. Notes: There was a Grave Cut Sample No. Primary Fill Secondary Fill	230 Find Nos. 09 Primary fi Firm mid g Second Tertiary f Stone lim slight concentrac 234 (Recorde Find Nos. Primary fi Second	Orientation NE to SW Il description rey orange brown clay silt a dary fill description ing description etion of larger stones at the ed under another number) Orientation Il description dary fill description	Length 2.05m sand with moderate frequ base but they did not for Length	Breath 0.55m uent poorly sorted sub-round m a lining Breath	Depth 0.43m ded stones. Depth	
Grave Cut Sample No. 049 Primary Fill 231 Secondary Fill Tertiary Fill Stone Lining No. Notes: There was a Grave Cut Sample No. Primary Fill Secondary Fill Tertiary Fill	230 Find Nos. 09 Primary fi Firm mid g Second Tertiary f Stone lim slight concentrac 234 (Recorde Find Nos. Primary fi Second Tertiary f	Orientation NE to SW Il description rey orange brown clay silt a dary fill description ing description stion of larger stones at the ed under another number) Orientation Il description dary fill description ill description	Length 2.05m sand with moderate frequ base but they did not for Length	Breath 0.55m uent poorly sorted sub-round m a lining Breath	Depth 0.43m ded stones. Depth	
Grave Cut Sample No. 049 Primary Fill 231 Secondary Fill Tertiary Fill Stone Lining No. Notes: There was a Grave Cut Sample No. Primary Fill Secondary Fill Tertiary Fill Stone Lining No.	230 Find Nos. 09 Primary fi Firm mid g Second Tertiary f Stone lim slight concentrac 234 (Recorde Find Nos. Primary fi Second Tertiary f Stone lim	Orientation NE to SW Il description rey orange brown clay silt dary fill description ing description stion of larger stones at the ed under another number) Orientation Il description dary fill description ing description	Length 2.05m sand with moderate frequ base but they did not for Length	Breath 0.55m uent poorly sorted sub-round m a lining Breath	Depth 0.43m ded stones. Depth	
Grave Cut Sample No. 049 Primary Fill 231 Secondary Fill Stone Lining No. Notes: There was a Grave Cut Sample No. Primary Fill Secondary Fill Tertiary Fill Stone Lining No. Notes: Recorded un	230 Find Nos. 09 Primary fi Firm mid g Second Tertiary f Stone limi slight concentrace 234 (Recorde Find Nos. Primary fi Second Tertiary f Stone limit der a different nu	Orientation NE to SW Il description rey orange brown clay silt a dary fill description ing description stion of larger stones at the ed under another number) Orientation Il description dary fill description ing description unber. Context sheet mission	Length 2.05m sand with moderate frequ base but they did not for Length	Breath 0.55m uent poorly sorted sub-round m a lining Breath	Depth 0.43m ded stones. Depth	
Grave Cut Sample No. 049 Primary Fill 231 Secondary Fill Stone Lining No. Notes: There was a Grave Cut Sample No. Primary Fill Secondary Fill Tertiary Fill Stone Lining No. Notes: Recorded un	230 Find Nos. 09 Primary fi Firm mid g Second Tertiary f Stone limi slight concentrace 234 (Recorde Find Nos. Primary fi Second Tertiary f Stone limi der a different nu	Orientation NE to SW Il description rey orange brown clay silt a dary fill description ing description stion of larger stones at the ed under another number) Orientation Il description dary fill description ing description unber. Context sheet missin	Length 2.05m sand with moderate frequ base but they did not for Length	Breath 0.55m uent poorly sorted sub-round m a lining Breath	Depth 0.43m ded stones. Depth	
Grave Cut Sample No. 049 Primary Fill 231 Secondary Fill Tertiary Fill Stone Lining No. Notes: There was a Grave Cut Sample No. Primary Fill Secondary Fill Tertiary Fill Stone Lining No. Notes: Recorded un Grave Cut Sample No.	230 Find Nos. 09 Primary fi Firm mid g Second Tertiary f Stone limi slight concentrace 234 (Recorde Find Nos. Primary fi Second Tertiary f Stone limi der a different nu 264 Find Nos	Orientation NE to SW Il description rey orange brown clay silt a dary fill description ing description tion of larger stones at the ed under another number) Orientation Il description dary fill description ing description unber. Context sheet missin	Length 2.05m sand with moderate frequ base but they did not for Length	Breath 0.55m uent poorly sorted sub-round m a lining Breath	Depth 0.43m ded stones. Depth	
Grave Cut Sample No. 049 Primary Fill 231 Secondary Fill Tertiary Fill Stone Lining No. Notes: There was a Grave Cut Sample No. Primary Fill Stone Lining No. Notes: Recorded un Grave Cut Sample No. 64	230 Find Nos. 09 Primary fi Firm mid g Second Tertiary f Stone limi slight concentrace 234 (Recorde Find Nos. Primary fi Second Tertiary f Stone limi der a different nu 264 Find Nos.	Orientation NE to SW Il description rey orange brown clay silt a dary fill description ing description tion of larger stones at the ed under another number) Orientation Il description dary fill description ing description unber. Context sheet missin Orientation NE to SW	Length 2.05m sand with moderate frequ base but they did not for Length ng. Length 1.95m	Breath 0.55m uent poorly sorted sub-round m a lining Breath 0.72m	Depth 0.43m ded stones. Depth 0.25m	
Grave Cut Sample No. 049 Primary Fill 231 Secondary Fill Tertiary Fill Stone Lining No. Notes: There was a Grave Cut Sample No. Primary Fill Stone Lining No. Notes: Recorded un Grave Cut Sample No. 64 Primary Fill	230 Find Nos. 09 Primary fi Firm mid g Second Tertiary f Stone limi slight concentrace 234 (Recorde Find Nos. Primary fi Stone limi der a different nu 264 Find Nos. Primary fi	Orientation NE to SW Il description rey orange brown clay silt a dary fill description ing description tion of larger stones at the ed under another number) Orientation Il description dary fill description ing description mber. Context sheet missin Orientation NE to SW Il description	Length 2.05m sand with moderate freque base but they did not for Length ng. Length 1.95m	Breath 0.55m uent poorly sorted sub-round m a lining Breath 0.72m	Depth 0.43m ded stones. Depth 0.25m	
Grave Cut Sample No. 049 Primary Fill 231 Secondary Fill Tertiary Fill Stone Lining No. Notes: There was a Grave Cut Sample No. Primary Fill Stone Lining No. Notes: Recorded un Grave Cut Sample No. 64 Primary Fill 331	230 Find Nos. 09 Primary fi Firm mid g Second Tertiary f Stone limi slight concentrace 234 (Recorde Find Nos. Primary fi Stone limi der a different nu 264 Find Nos. Primary fi Stones. Sto	Orientation NE to SW Il description rey orange brown clay silt a dary fill description fill description tion of larger stones at the ed under another number) Orientation Il description dary fill description fill description mber. Context sheet missin Orientation NE to SW Il description ne lining of grave	Length 2.05m sand with moderate freque base but they did not for Length ng. Length 1.95m	Breath 0.55m uent poorly sorted sub-round m a lining Breath 0.72m	Depth 0.43m ded stones. Depth 0.25m	
Grave Cut Sample No. 049 Primary Fill 231 Secondary Fill Tertiary Fill Stone Lining No. Notes: There was a Grave Cut Sample No. Primary Fill Stone Lining No. Notes: Recorded un Grave Cut Sample No. 64 Primary Fill 331 Secondary Fill	230 Find Nos. 09 Primary fi Firm mid g Second Tertiary f Stone limi slight concentrace 234 (Recorde Find Nos. Primary fi Stone limi der a different nu 264 Find Nos. Primary fi Stones. Sto Second	Orientation NE to SW Il description rey orange brown clay silt a dary fill description fill description tion of larger stones at the ed under another number) Orientation Il description dary fill description fill description mber. Context sheet missin Orientation NE to SW Il description ne lining of grave dary fill description	Length 2.05m sand with moderate freque base but they did not for Length ng. Length 1.95m	Breath 0.55m uent poorly sorted sub-round m a lining Breath 0.72m	Depth 0.43m ded stones. Depth 0.25m	
Grave Cut Sample No. 049 Primary Fill 231 Secondary Fill Tertiary Fill Stone Lining No. Notes: There was a Grave Cut Sample No. Primary Fill Stone Lining No. Notes: Recorded un Grave Cut Sample No. 64 Primary Fill 331 Secondary Fill 263	230 Find Nos. 09 Primary fi Firm mid g Second Tertiary f Stone limi slight concentrace 234 (Recorde Find Nos. Primary fi Stone limi der a different nu 264 Find Nos. Primary fi Stones. Sto Second Firm rr	Orientation NE to SW Il description rey orange brown clay silt a dary fill description fill description tion of larger stones at the ed under another number) Orientation Il description dary fill description fill description mber. Context sheet missin Orientation NE to SW Il description ne lining of grave dary fill description id brown clay silt with grit	Length 2.05m sand with moderate freque base but they did not for Length ng. Length 1.95m	Breath 0.55m uent poorly sorted sub-round m a lining Breath 0.72m	Depth 0.43m ded stones. Depth 0.25m	
Grave Cut Sample No. 049 Primary Fill 231 Secondary Fill Tertiary Fill Stone Lining No. Notes: There was a Grave Cut Sample No. Primary Fill Stone Lining No. Notes: Recorded un Grave Cut Sample No. 64 Primary Fill 331 Secondary Fill 263 Tertiary Fill Stone Lining No.	230 Find Nos. 09 Primary fi Firm mid g Second Tertiary f Stone limis slight concentrace 234 (Recorde Find Nos. Primary fi Stone limider a different nu 264 Find Nos. Primary fi Stones. Sto Second Firm r Tertiary fi Stones. Sto Second Firm r Tertiary fi Stones. Sto Second Firm r Tertiary fi	Orientation NE to SW Il description rey orange brown clay silt is dary fill description ing description tion of larger stones at the ed under another number) Orientation Il description dary fill description ing description imber. Context sheet missin Orientation NE to SW Il description ne lining of grave dary fill description id brown clay silt with grit ill description	Length 2.05m sand with moderate freque base but they did not for Length ng. Length 1.95m	Breath 0.55m Lent poorly sorted sub-round m a lining Breath 0.72m	Depth 0.43m ded stones. Depth 0.25m	
Grave Cut Sample No. 049 Primary Fill 231 Secondary Fill Tertiary Fill Stone Lining No. Notes: There was a Grave Cut Sample No. Primary Fill Stone Lining No. Notes: Recorded un Grave Cut Sample No. 64 Primary Fill 331 Secondary Fill 263 Tertiary Fill Stone Lining No. 331-primary fill	230 Find Nos. 09 Primary fi Firm mid g Second Tertiary f Stone limi slight concentrace 234 (Recorde Find Nos. Primary fi Stone limi der a different nu 264 Find Nos. Primary fi Stones. Sto Second Firm r Tertiary f Stone limi Large etco	Orientation NE to SW Il description rey orange brown clay silt is dary fill description ing description tion of larger stones at the ed under another number) Orientation Il description dary fill description ing description imber. Context sheet missin Orientation NE to SW Il description ne lining of grave dary fill description id brown clay silt with grit ill description ing description me line the NW side of the	Length 2.05m sand with moderate freque base but they did not for Length ng. Length 1.95m	Breath 0.55m Lent poorly sorted sub-round m a lining Breath 0.72m	Depth 0.43m ded stones. Depth 0.25m	
Grave Cut Sample No. 049 Primary Fill 231 Secondary Fill Tertiary Fill Stone Lining No. Notes: There was a Grave Cut Sample No. Primary Fill Stone Lining No. Notes: Recorded un Grave Cut Sample No. 64 Primary Fill 331 Secondary Fill 331 Secondary Fill 263 Tertiary Fill Stone Lining No. 331-primary fill Notes: Wider at the	230 Find Nos. 09 Primary fi Firm mid g Second Tertiary f Stone limis slight concentrace 234 (Recorde Find Nos. Primary fi Stone limis der a different nu 264 Find Nos. Primary fi Stones. Sto Second Firm m Tertiary fi Stones. Sto Second Firm m Tertiary fi Stone limis Stone limis	Orientation NE to SW Il description rey orange brown clay silt is dary fill description fill description tion of larger stones at the ed under another number) Orientation Il description dary fill description fill description ing description mber. Context sheet missin Orientation NE to SW Il description ne lining of grave dary fill description id brown clay silt with grit fill description nes line the NW side of the ured to the middle	Length 2.05m sand with moderate freque base but they did not for Length ng. Length 1.95m	Breath 0.55m Lent poorly sorted sub-round m a lining Breath 0.72m	Depth 0.43m ded stones. Depth 0.25m	
Grave Cut Sample No. 049 Primary Fill 231 Secondary Fill Tertiary Fill Stone Lining No. Notes: There was a Grave Cut Sample No. Primary Fill Stone Lining No. Notes: Recorded un Grave Cut Sample No. 64 Primary Fill 331 Secondary Fill 331 Secondary Fill 263 Tertiary Fill Stone Lining No. 331-primary fill Notes: Wider at the	230 Find Nos. 09 Primary fi Firm mid g Second Tertiary f Stone limit slight concentrace 234 (Recorde Find Nos. Primary fi Stone limit der a different nut 264 Find Nos. Primary fi Stones. Stone Firm m Tertiary fi Stones. Stone Stone limit Stone limit Stone limit Stone limit Large store both ends compared	Orientation NE to SW Il description rey orange brown clay silt a dary fill description fill description tion of larger stones at the ed under another number) Orientation Il description dary fill description fill description mber. Context sheet mission Orientation NE to SW Il description ne lining of grave dary fill description nid brown clay silt with grit fill description nes line the NW side of the ured to the middle.	Length 2.05m sand with moderate freque base but they did not for Length ng. Length 1.95m	Breath 0.55m Lent poorly sorted sub-round m a lining Breath 0.72m	Depth 0.43m ded stones. Depth 0.25m	
Grave Cut Sample No. 049 Primary Fill 231 Secondary Fill Tertiary Fill Stone Lining No. Notes: There was a Grave Cut Sample No. Primary Fill Stone Lining No. Notes: Recorded un Grave Cut Sample No. 64 Primary Fill 331 Secondary Fill 263 Tertiary Fill Stone Lining No. 331-primary fill Notes: Wider at the Grave Cut	230 Find Nos. 09 Primary fi Firm mid g Second Tertiary f Stone limit slight concentrace 234 (Recorde Find Nos. Primary fi Stone limit der a different nut 264 Find Nos. Primary fi Stones. Stone Stones. Stone Firm m Tertiary fi Stones. Stone Stone limit Large store both ends compart	Orientation NE to SW Il description rey orange brown clay silt is dary fill description fill description tion of larger stones at the ed under another number) Orientation Il description dary fill description fill description mber. Context sheet mission <b>Orientation</b> NE to SW Il description ne lining of grave dary fill description iid brown clay silt with grit fill description nes line the NW side of the ured to the middle.	Length 2.05m sand with moderate freque base but they did not for Length ng. Length 1.95m	Breath 0.55m Lent poorly sorted sub-round m a lining Breath 0.72m	Depth 0.43m ded stones. Depth 0.25m	
Grave Cut Sample No. 049 Primary Fill 231 Secondary Fill Tertiary Fill Stone Lining No. Notes: There was a Grave Cut Sample No. Primary Fill Stone Lining No. Notes: Recorded un Grave Cut Sample No. 64 Primary Fill 331 Secondary Fill 263 Tertiary Fill Stone Lining No. 331-primary fill Notes: Wider at the Grave Cut Sample No.	230 Find Nos. 09 Primary fi Firm mid g Second Tertiary f Stone limit slight concentrace 234 (Recorde Find Nos. Primary fi Stone limit der a different nut 264 Find Nos. Primary fi Stones. Stone Firm m Tertiary fi Stones. Stone Stone limit Large store both ends compara 268 Find Nos.	Orientation NE to SW Il description rey orange brown clay silt is dary fill description ing description tion of larger stones at the ed under another number) Orientation Il description dary fill description ing description mber. Context sheet mission Orientation NE to SW Il description ne lining of grave dary fill description ing description me lining of grave dary fill description ing description ne lining of grave dary fill description ne line the NW side of the ured to the middle.	Length 2.05m sand with moderate freque base but they did not for Length ng. Length 1.95m	Breath 0.55m Lent poorly sorted sub-round m a lining Breath 0.72m We and line the SW edge of t	Depth 0.43m ded stones. Depth 0.25m the south end. Depth	

 Primary Fill
 Primary fill description

 269
 Firm mid brown clay silt with rounded and sub-rounded stones (40%) and rare fragments of charcoal/coal.

# Secondary FillSecondary fill descriptionTertiary FillTertiary fill descriptionStone Lining No.Stone lining descriptionNotes: Short disturbed grave with stone holes at the north end.

Grave Cut	274				
Sample No.	Find Nos.	Orientation	Length	Breath	Depth
-		ENE to WSW	2.3m	0.88m	0.2m
Primary Fill	Primary f	ill description			
297	Sub-angul	ar and sub-circular stones. L	ining of grave. Stones n	neasure from 0.3x0.2m, 0	).15x0.15m and
	0.2x0.1m.				
Secondary Fill	Secor	dary fill description			
275					
Tertiary Fill	Tertiary	fill description			
Stone Lining No.	Stone lin	ning description			
297- primary fill	Stone lir	ing appears on the NW and	SE sides of the grave wi	ith one large stone in the	edge of the cut
<b>Tertiary Fill</b> <b>Stone Lining No.</b> 297- primary fill	Tertiary Stone lin Stone lin at the NI	<b>fill description</b> <b>ning description</b> ting appears on the NW and E end of the feature.	SE sides of the grave wi	ith one large stone in the	edge of the cut

Notes: Grave seems quite shallow and narrow and irregular in plan.

Grave Cut	281				
Sample No.	Find Nos.	Orientation	Length	Breath	Depth
71	30	ENE to WSW	1.6m	0.7m	0.35m
Primary Fill	Primary f	ill description			
282	Firm mid l	brown clay silt with rounded	and sub rounded stones	8.	
Secondary Fill	Secon	dary fill description			
Tertiary Fill	Tertiary	fill description			
Stone Lining No.	Stone li	ning description			
No number given	Stones li	ned the southern interior edg	ge.		
Notes: A smallish gr	ave	·			

Grave Cut	285						
Sample No.	Find Nos.	Orientation ENE to WSW	Length 2.15m	<b>Breath</b> 0.55m	<b>Depth</b> 0.15m		
Primary Fill 286 Secondary Fill 287	Primary fill description       Partial stone lining. Irregular sub-rounded and rounded stones, fairly well sorted, <0.25m         Secondary fill description       Firm mid brown sand/clay/silt with moderately frequent poorly sorted sub-rounded stones (<0.07m).						
<b>Tertiary Fill</b> <b>Stone Lining No.</b> 286 - primary fill	<b>Tertiary fil</b> <b>Stone linin</b> Partial ston	<b>Tertiary fill description</b> <b>Stone lining description</b> Partial stone lining roughly placed round the edge of the cut					
Grave Cut	288						
Sample No. 77	Find Nos.	<b>Orientation</b> ENE to WSW	Length 2.06m	Breath 0.8m	<b>Depth</b> 0.17m		
Primary Fill 298 Secondary Fill 289 Tertiary Fill Stone Lining No. 298 - primary fill	Primary fill description       2.00m       0.17m         Partial stone lining. Stones measure from 0.15x0.2m to 0.1x0.1m       Secondary fill description         Friable mid orange brown clay silt with some gravel and small stones.       Tertiary fill description         Stone lining description       Partial stone lining mostly concentrated on the N and W sides of the cut						
Grave Cut	295						
Sample No.	Find Nos.	<b>Orientation</b> NE to SW	Length 2.0m	<b>Breath</b> 0.7m	Depth 0.35m		
Primary Fill 311 Secondary Fill 296 Tertiary Fill 314 Stone Lining No. 311 - primary fill	INE to SW       2.0m       0.7m       0.35m         Primary fill description       Partial rough stone lining.Fairly poorly sorted sub-round stones average size 0.15m in diameter but up to 0.3m         Secondary fill description       Firm mid grey brown sand silt with occational small stones <0.05m.						
Grave Cut	310						
Sample No. 79	Find Nos.	<b>Orientation</b> ENE to WSW	Length 2.10m	<b>Breath</b> 0.72m	<b>Depth</b> 0.01m to 0.15m		
Primary Fill 330 Secondary Fill 309 Tertiary Fill Stone Lining No.	ENE to WSW     2.10m     0.72m     0.01m to 0.15m       Primary fill description     Stone lining. Stones measured from 0.2x0.2m to 0.1x0.05m     Secondary fill description       Friable mid orange brown clay silt with gravel and stones.     Tertiary fill description       Stone lining description     Stone lining description						

Stone lining found in the S end of the feature on the NW side. One larger stone measuring 0.3x0.2m 330 - primary fill lay in the centre of the base of the grave at the N end. 336 **Grave Cut** Find Nos. Sample No. Orientation Breath Depth Length NE to SW 1.85m 0.8m 0.3m **Primary Fill** Primary fill description Partial stone lining. Stones measure from 0.15x0.1m to 0.08x0.06m 360 Secondary Fill Secondary fill description 335 Frianle mid yellow brown sand silt with gravel and small stones. **Tertiary Fill** Tertiary fill description Stone lining description Stone Lining No. 360 - primary fill Partial stone lining. Mostly small stones to the west side and some larger stones line the cut. Two 'tumbled' piles of small stones towards the centre of the feature. Notes: Very square corners at the S end Grave Cut 343 (possible grave) Sample No. Find Nos. Orientation Length Breath Depth ENE to WSW 0.7m 0.38m 0.16m Primary fill description **Primary Fill** Firm mid brown grey sand silt with small sub-angular stones. 344 Secondary Fill Secondary fill description Tertiary fill description **Tertiary Fill** Stone Lining No. Stone lining description Notes: Oval pit, possible small grave by association to grave 376 347 Grave Cut Sample No. Find Nos. Orientation Length Breath Depth NE to SW 0.6m 0.4m 0.08m**Primary Fill** Primary fill description Friable pale grey brown sand silt with stones and small gravel. 348 Secondary Fill Secondary fill description **Tertiary Fill** Tertiary fill description Stone Lining No. Stone lining description Notes: Small shallow feature close to graves 336 and 163 and on the same orientaion. Grave Cut 352 Sample No. Find Nos. Orientation Length Breath Depth NE to SW 0.8m 0.37m 0.23m **Primary Fill** Primary fill description Firm mid grey brown sand silt with moderately frequent sub-rounded poorly sorted stones (0.01m - 0.1m) 353 Secondary Fill Secondary fill description Tertiary Fill Tertiary fill description Stone Lining No. Stone lining description Notes: Oval pit / very small burial (infant). Close to and same orientation to [182] **Grave Cut** 361 Sample No. Find Nos. Orientation Length Breath Depth ENE to WSW 2.4m 0.8m 0.5m 23 **Primary Fill** Primary fill description Soft mid brown grey clay silt with occasional very large stones (<0.4m). Probably the result of natuarl 362 silting up (0.12m deep). Secondary Fill Secondary fill description Compact mid grey brown clay silt with occational small sub-rounded stones and frequent patches 367 of redeposited natural. Slumped natural. **Tertiary Fill Tertiary fill description** Firm mid grey brown clay silt with moderately frequent sub-rounded stones (<0.1m) - deliberate 368 backfilling? Stone Lining No. Stone lining description Notes: The stones within the primary fill 362 were unusually large, however they do not appear to have been deliberately positioned. Cut by ditch 158/363. 365 (possible grave) Grave Cut Sample No. Find Nos. Orientation Breath Depth Length ENE-WSW 2.1m 0.7m 0.25mPrimary fill description **Primary Fill** 366 Firm grey-brown silt Secondary Fill Secondary fill description **Tertiary Fill Tertiary fill description** Stone Lining No. Stone lining description Notes: Sub-rectangular feature of about the right size, shape and orientation to be a grave but very isolated. The base of the cut is irregular and stony but the feature seems to have been disturbed by burrowing. **Grave Cut** 369

Sample No.

Find Nos.

Orientation

Length

Breath

Depth

		ENE to WSW	2.1m	0./m	0.4m	
Primary Fill	Primary fi	ll description				
371	Firm mixed	l grey brown with yellow p	atches. Slightly sandy cla	ay silt with rounded peb	bles and grave	
	packing sto	ones.				
Secondary Fill	Second Voru fi	dary fill description	th rounded nebbles and a	mall sub rounded stone	and rea floats	
370	of char	rcoal and grave packing sto	in rounded peoples and s	anan sub-rounded stone	s and fae necks	
Tortiory Fill	Tortiory f	fill description	1105.			
Stone Lining No.	Stone lini	ing description				
370, 371	Packing s	stones present in both fills				
Notes: Cuts 373 (fil	l of an irregular r	pit [372]).				
		[e · -]).				
Grave Cut	376					
Sample No.	Find Nos.	Orientation	Length	Breath	Depth	
		ENE to WSW	2.1m	0.7m	0.35m	
Primary Fill	Primary fi	ll description				
380	Stone fill -	Firm grey brown clay silt	with small gravel and son	ne stones.		
Secondary Fill	Second	dary fill description	A ( 1 1'	° 1 4 1 4 1	6.1	
459	Firm g	rey brown clay silt with sto	ones. Appears to be modi	fied natural on the edge	of the cut.	
277	Firm grou	uallow brown alow silt wit	h groval and stonas			
Stone Lining No.	Stone lin	ing description	il glavel allu stolles.			
380 - primary fill	Partial sto	one lining on the S side but	not for the whole lengh	only to half way		
500 printary ini	i uniui ste	she ming on the 5 side out	not for the whole lengh,	omy to hun way.		
Grave Cut	393 (possible	e grave)				
Sample No.	Find Nos.	Orientation	Length	Breath	Depth	
•		ENE-WSW	0	0.75m	0.45m	
Primary Fill	Primary fi	ll description				
394	Firm grey-t	brown loamy silt with occa	sional stones			
Secondary Fill	Second	dary fill description				
Tertiary Fill	Tertiary f	ill description				
Stone Lining No.	Stone lin	ing description				
Notes: Only part of	feature seen beca	ause close to BT services. I	NE end not well defined v	where it cuts the tree ho	llow $3/2$ . Could be the	end
of a ditch but on san	ne alignment as 3	369 and the right profile an	d size etc. for a grave.			
Crovo Cut	128					
Sample No	Find Nos	Orientation	Length	Breath	Denth	
Sample 10.	Fillu 1005.	ENE to WSW	2.2m	0.8m	0.5m	
			2.2111	0.0111	0.5111	
Primary Fill	Primary fi	II description				
Primary Fill 429	<b>Primary fi</b> Firm mid g	<b>Il description</b> arey brown clay silt with mo	oderately frequent sub-ro	unded stones.		
Primary Fill 429 Secondary Fill	Primary fi Firm mid g Second	Il description rey brown clay silt with m dary fill description	oderately frequent sub-ro	unded stones.		
Primary Fill 429 Secondary Fill 430	<b>Primary fi</b> Firm mid g <b>Secono</b> Firm m	Il description rey brown clay silt with me dary fill description nid brown sand-clay-silt wi	oderately frequent sub-ro	unded stones. ub-rounded stones (<0.1	m)	
Primary Fill 429 Secondary Fill 430 Tertiary Fill	Primary fi Firm mid g Second Firm m Tertiary f	Il description rey brown clay silt with me dary fill description nid brown sand-clay-silt wi fill description	oderately frequent sub-ro	unded stones. ub-rounded stones (<0.1	m)	
Primary Fill 429 Secondary Fill 430 Tertiary Fill Stone Lining No.	Primary fi Firm mid g Second Firm m Tertiary f Stone lini	Il description grey brown clay silt with me dary fill description nid brown sand-clay-silt wi fill description ing description	oderately frequent sub-ro	unded stones. ub-rounded stones (<0.1	m)	
Primary Fill 429 Secondary Fill 430 Tertiary Fill Stone Lining No. Notes: Truncated by	Primary fi Firm mid g Second Firm m Tertiary f Stone lini y ditch 363	Il description rey brown clay silt with me dary fill description nid brown sand-clay-silt wi fill description ing description	oderately frequent sub-ro	unded stones. ub-rounded stones (<0.1	m)	
Primary Fill 429 Secondary Fill 430 Tertiary Fill Stone Lining No. Notes: Truncated by	Primary fi Firm mid g Second Firm m Tertiary f Stone lini y ditch 363	Il description rey brown clay silt with me dary fill description nid brown sand-clay-silt wi fill description ing description	oderately frequent sub-ro th moderately frequent so	unded stones. ub-rounded stones (<0.1	m)	
Primary Fill 429 Secondary Fill 430 Tertiary Fill Stone Lining No. Notes: Truncated by Grave Cut	Primary fi Firm mid g Second Firm m Tertiary f Stone lini y ditch 363 432	Il description rey brown clay silt with me dary fill description nid brown sand-clay-silt wi fill description ing description	oderately frequent sub-ro th moderately frequent so	unded stones. ub-rounded stones (<0.1	m)	
Primary Fill 429 Secondary Fill 430 Tertiary Fill Stone Lining No. Notes: Truncated by Grave Cut Sample No.	Primary fi Firm mid g Second Firm m Tertiary f Stone lini y ditch 363 432 Find Nos.	Il description (rey brown clay silt with me dary fill description hid brown sand-clay-silt wi fill description ing description Orientation ENE to WSW	oderately frequent sub-ro th moderately frequent su <b>Length</b>	unded stones. ub-rounded stones (<0.1 Breath 0.75m	m) Depth	
Primary Fill 429 Secondary Fill 430 Tertiary Fill Stone Lining No. Notes: Truncated by Grave Cut Sample No. Primary Fill	Primary fi Firm mid g Second Firm m Tertiary f Stone lini y ditch 363 432 Find Nos. Primory fi	Il description grey brown clay silt with me dary fill description nid brown sand-clay-silt wi fill description ing description Orientation ENE to WSW	oderately frequent sub-ro th moderately frequent su <b>Length</b> 1.9m	unded stones. ub-rounded stones (<0.1 <b>Breath</b> 0.75m	m) <b>Depth</b> 0.55m	
Primary Fill 429 Secondary Fill 430 Tertiary Fill Stone Lining No. Notes: Truncated by Grave Cut Sample No. Primary Fill 471	Primary fi Firm mid g Second Firm m Tertiary f Stone lini y ditch 363 432 Find Nos. Primary fi Partial ston	Il description rey brown clay silt with me dary fill description nid brown sand-clay-silt wi fill description ing description ENE to WSW Il description te lining	oderately frequent sub-ro th moderately frequent su <b>Length</b> 1.9m	unded stones. ub-rounded stones (<0.1 <b>Breath</b> 0.75m	m) <b>Depth</b> 0.55m	
Primary Fill 429 Secondary Fill 430 Tertiary Fill Stone Lining No. Notes: Truncated by Grave Cut Sample No. Primary Fill 471 Secondary Fill	Primary fi Firm mid g Second Firm m Tertiary f Stone lini y ditch 363 432 Find Nos. Primary fi Partial ston Second	Il description rey brown clay silt with me dary fill description nid brown sand-clay-silt wi fill description ing description ENE to WSW Il description te lining. dary fill description	oderately frequent sub-ro th moderately frequent su <b>Length</b> 1.9m	unded stones. ub-rounded stones (<0.1 <b>Breath</b> 0.75m	m) <b>Depth</b> 0.55m	
Primary Fill 429 Secondary Fill 430 Tertiary Fill Stone Lining No. Notes: Truncated by Grave Cut Sample No. Primary Fill 471 Secondary Fill 431	Primary fi Firm mid g Second Firm m Tertiary f Stone lini y ditch 363 432 Find Nos. Primary fi Partial ston Second Friable	Il description rey brown clay silt with me dary fill description nid brown sand-clay-silt wi fill description ing description ENE to WSW Il description te lining. dary fill description e mid grey brown clay silt y	oderately frequent sub-ro th moderately frequent su <b>Length</b> 1.9m vith small stones	unded stones. ub-rounded stones (<0.1 <b>Breath</b> 0.75m	.m) <b>Depth</b> 0.55m	
Primary Fill 429 Secondary Fill 430 Tertiary Fill Stone Lining No. Notes: Truncated by Grave Cut Sample No. Primary Fill 471 Secondary Fill 431 Tertiary Fill	Primary fi Firm mid g Second Firm m Tertiary f Stone lini y ditch 363 432 Find Nos. Primary fi Partial ston Second Friable Tertiary f	Il description rey brown clay silt with me dary fill description nid brown sand-clay-silt wi fill description ing description ENE to WSW Il description the lining. dary fill description e mid grey brown clay silt will fill description	oderately frequent sub-ro th moderately frequent su <b>Length</b> 1.9m with small stones	unded stones. ub-rounded stones (<0.1 <b>Breath</b> 0.75m	.m) <b>Depth</b> 0.55m	
Primary Fill 429 Secondary Fill 430 Tertiary Fill Stone Lining No. Notes: Truncated by Grave Cut Sample No. Primary Fill 471 Secondary Fill 431 Tertiary Fill Stone Lining No.	Primary fi Firm mid g Second Firm m Tertiary f Stone lini y ditch 363 432 Find Nos. Primary fi Partial ston Second Friable Tertiary f Stone lini	Il description rey brown clay silt with me dary fill description nid brown sand-clay-silt wi fill description ing description ENE to WSW Il description the lining. dary fill description to mid grey brown clay silt will fill description ing description	oderately frequent sub-ro th moderately frequent su <b>Length</b> 1.9m with small stones	unded stones. ub-rounded stones (<0.1 <b>Breath</b> 0.75m	.m) <b>Depth</b> 0.55m	
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Primary Fill 429 Secondary Fill 430 Tertiary Fill Stone Lining No. Notes: Truncated by Grave Cut Sample No. Primary Fill 471 Secondary Fill 431 Tertiary Fill Stone Lining No. 471 - primary fill	Primary fi Firm mid g Second Firm m Tertiary f Stone lini y ditch 363 432 Find Nos. Primary fi Partial ston Second Friable Tertiary f Stone lini Partial sto gential ston Friable	Il description rey brown clay silt with me dary fill description nid brown sand-clay-silt wi fill description ing description ENE to WSW Il description te lining. dary fill description e mid grey brown clay silt w fill description ing description one lining. Mostly found at and there was a large stone	oderately frequent sub-ro th moderately frequent su <b>Length</b> 1.9m with small stones the eastern end of the gr	unded stones. ub-rounded stones (<0.1 <b>Breath</b> 0.75m ave. One large 'worked' 0.2x0.3m	.m) <b>Depth</b> 0.55m stone lay at the	
Primary Fill 429 Secondary Fill 430 Tertiary Fill Stone Lining No. Notes: Truncated by Grave Cut Sample No. Primary Fill 471 Secondary Fill 431 Tertiary Fill Stone Lining No. 471 - primary fill Notes: Cut by corn	Primary fi Firm mid g Second Firm m Tertiary f Stone lini y ditch 363 432 Find Nos. Primary fi Partial ston Second Friable Tertiary f Stone lini Partial sto Stone lini Partial sto	Il description rey brown clay silt with me dary fill description nid brown sand-clay-silt wi fill description ing description ENE to WSW Il description te lining. dary fill description e mid grey brown clay silt wi fill description ing description one lining. Mostly found at and there was a large stone	oderately frequent sub-ro th moderately frequent su <b>Length</b> 1.9m with small stones the eastern end of the gr in the centre measuring	unded stones. ub-rounded stones (<0.1 <b>Breath</b> 0.75m ave. One large 'worked' 0.2x0.3m	.m) <b>Depth</b> 0.55m stone lay at the	
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Primary Fill 429 Secondary Fill 430 Tertiary Fill Stone Lining No. Notes: Truncated by Grave Cut Sample No. Primary Fill 471 Secondary Fill 431 Tertiary Fill Stone Lining No. 471 - primary fill Notes: Cut by corn of Grave Cut	Primary fi Firm mid g Second Firm m Tertiary f Stone lini y ditch 363 432 Find Nos. Primary fi Partial ston Second Friable Tertiary f Stone lini Partial sto west end drier 137	Il description rey brown clay silt with me dary fill description nid brown sand-clay-silt wi fill description ing description ENE to WSW Il description te lining. dary fill description e mid grey brown clay silt w fill description ing description one lining. Mostly found at and there was a large stone	oderately frequent sub-ro th moderately frequent su Length 1.9m with small stones the eastern end of the gr in the centre measuring	unded stones. ub-rounded stones (<0.1 <b>Breath</b> 0.75m ave. One large 'worked' 0.2x0.3m	m) <b>Depth</b> 0.55m stone lay at the	
Primary Fill 429 Secondary Fill 430 Tertiary Fill Stone Lining No. Notes: Truncated by Grave Cut Sample No. Primary Fill 471 Secondary Fill 431 Tertiary Fill Stone Lining No. 471 - primary fill Notes: Cut by corn of Grave Cut Sample No.	Primary fi Firm mid g Second Firm m Tertiary f Stone lini y ditch 363 432 Find Nos. Primary fi Partial ston Second Friable Tertials ton Stone lini Partial sto drier 137 447 Find Nos.	Il description rey brown clay silt with me dary fill description nid brown sand-clay-silt wi fill description Orientation ENE to WSW Il description le lining. dary fill description e mid grey brown clay silt wi fill description ing description one lining. Mostly found at and there was a large stone Orientation	bederately frequent sub-ro th moderately frequent sub- Length 1.9m with small stones the eastern end of the gra- in the centre measuring Length	unded stones. ub-rounded stones (<0.1 Breath 0.75m ave. One large 'worked' 0.2x0.3m Breath	m) Depth 0.55m stone lay at the Depth	
Primary Fill 429 Secondary Fill 430 Tertiary Fill Stone Lining No. Notes: Truncated by Grave Cut Sample No. Primary Fill 471 Secondary Fill 431 Tertiary Fill Stone Lining No. 471 - primary fill Notes: Cut by corn of Grave Cut Sample No.	Primary fi Firm mid g Second Firm m Tertiary f Stone lini y ditch 363 432 Find Nos. Primary fi Partial ston Second Friable Tertiary f Stone lini Partial sto west end d drier 137 447 Find Nos.	Il description rey brown clay silt with me dary fill description nid brown sand-clay-silt wi fill description Orientation ENE to WSW Il description te lining. dary fill description e mid grey brown clay silt wi fill description one lining. Mostly found at and there was a large stone Orientation E to W	bederately frequent sub-ro th moderately frequent sub- Length 1.9m with small stones the eastern end of the gra- in the centre measuring Length 1.34m	unded stones. ub-rounded stones (<0.1 Breath 0.75m ave. One large 'worked' 0.2x0.3m Breath 0.52m	m) <b>Depth</b> 0.55m stone lay at the <b>Depth</b> 0.36m	
Primary Fill 429 Secondary Fill 430 Tertiary Fill Stone Lining No. Notes: Truncated by Grave Cut Sample No. Primary Fill 431 Tertiary Fill Stone Lining No. 471 - primary fill Notes: Cut by corn of Grave Cut Sample No. Primary Fill 440	Primary fi Firm mid g Second Firm m Tertiary f Stone lini y ditch 363 432 Find Nos. Primary fi Partial ston Second Friable Tertiary f Stone lini Partial sto west end d drier 137 447 Find Nos. Primary fi Parw of too	Il description rey brown clay silt with me dary fill description nid brown sand-clay-silt wi fill description Orientation ENE to WSW Il description te lining. dary fill description e mid grey brown clay silt wi fill description one lining. Mostly found at and there was a large stone Orientation E to W Il description	bederately frequent sub-ro th moderately frequent sub- Length 1.9m with small stones the eastern end of the gra- in the centre measuring Length 1.34m	unded stones. ub-rounded stones (<0.1 <b>Breath</b> 0.75m ave. One large 'worked' 0.2x0.3m <b>Breath</b> 0.52m	m) <b>Depth</b> 0.55m stone lay at the <b>Depth</b> 0.36m	
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		E to W	2.0m	0.8m	0.3m
Primary Fill	Primary fi	ll description			
451	Partial stor	e lining. A number of fairly	small (<0.2m) of sub-ro	ounded stones pressed a	round the base of
	the cut with	a couple going up around	the sides. A quite large l	arge stone was pressed	against the side
	in the midd	lle of the eastern end.			
Secondary Fill	Secon	dary fill description		1 . 0.05 1.	6 11 150
452	Soft m	id grey brown sand-silt-clay	with occational sub-an	gular stones ,0.05m. Inte	erface with 158
Tentiony Fill	was ve	ry diffuse.			
feruary FIII Stone Lining No.	I eruary I	in description			
451 primary fill	Stone III	ing description	w small (<0.2m) of sub	rounded stones pressed	around the base
451 - prinary ini	of the cut	with a couple going up around	und the sides $A$ quite la	rge large stone was pressed	sed against the
	side in th	e middle of the eastern end	und the sides. It quite ia	ige large stone was pies	sed against the
Notes: Cut by ditch	[158]/[363]	e inidule of the custoff ond.			
	[]				
Grave Cut	455				
Sample No.	Find Nos.	Orientation	Length	Breath	Depth
-	26	ENE to WSW	2.2m	0.85m	0.5m
Primary Fill	Primary fi	ll description			
454	Firm dark 1	nottled brown silt clay with	large stones.		
Secondary Fill	Secon	dary fill description			
Tertiary Fill	Tertiary f	ill description			
Stone Lining No.	Stone lin	ing description	1 (1 (0")) 771	C 1 ( 1 )	C.1
No separate number	given Stone line	ed (stones used to possibly v	wedge the coffin). The s	tones were found at the	bottom of the
Notos Within rooto	grave wit	nin iiii 404. 152 Fill was diffusa with th	ao noturol		
Notes: within recta	ngular enclosure	152. Fill was ullfuse with th	ne natural.		
Grave Cut	458				
Sample No.	Find Nos.	Orientation	Length	Breath	Denth
Sumple i tor	1 110 1 1000	E to W	2.0m	0.8m	0.25m
Primary Fill	Primary fi	ll description			
460	Firm mid g	rey brown sand-clay-silt wi	th occasional small sub-	rounded stones (,0.05m)	)
Secondary Fill	Secon	dary fill description			
Tertiary Fill	Tertiary f	ill description			
Stone Lining No.	Stone lin	ing description			
	There we	re several larger stones at th	e base of deposit 460 w	hich could have been the	e remnants of a
	stone lini	ng/packing.			
Notes: The E end cu	its ditch 154? As	sociated with grave 450. Ur	ider fill of 137.		
Create Cut	161				
Sample No	Find Nos	Oriontation	Longth	Broath	Donth
Sample 10.	rinu 1005.	ENE to WSW	1 9m	0.85m	0.35m
Primary Fill	Primary fi	ll description	1.911	0.0511	0.55111
462	Firm pale	rev with mottled orange and	d brown clay with stone	5.	
Secondary Fill	Secon	dary fill description	2		
462	Partial	stone lining. Size od stones	range from 0.1x0.25x0.	15m to 0.1x0.05x0.05m	l.
Tertiary Fill	Tertiary f	ill description			
463 - 468	Firm mid	grey brown clay silt with sto	ones and grave. QUART	FERNARY FILL 468 =	Firm grey brown
	clay silt (c	uarternary fill) with gra	vel and small stones.		
Stone Lining No.	Stone lin	ing description			
462 - secondary fill	Partial sto	one lining. Stones seem to b	e set into the grey prima	ry deposit 361 and are r	nostly on the
	southern	side of the grave.			
Create Cut	165				
Sample No	Find Nos	Oriontation	Longth	Broath	Donth
Sample 10.	25	E to W	2 0m	0.9m	0 6m
Primary Fill	Primary fi	Il description	2.011	0.911	0.011
466	Firm mid b	rown grev sand silt with cla	v content with frequent	small sub angular stone	s (0.01m to
	0.03m) and	moderate medium size sub	rounded stones (0.04m	to 0.12m)	
Secondary Fill	Secon	dary fill description			
467					
Tertiary Fill	Tertiary f	ill description			
Stone Lining No.	Stone lin	ing description			
	Some evi	dence of cobble lining altho	ough only 4 stones remai	ned in total.	
Notes: Grave was b	elow corn drier [	137]			
a a (	5005				
Grave Cut	5005		<b>T</b> (1		D (1
Sample No.	Find Nos.	Urientation	Length	Breath	Depth
Drimony Fill	Duimour P	EINE tO WSW	2.45m	0.7/m	0.44m
5060	Thin lens of	n acscription f grey brown silt gravel in f	he hase of the grave		
Secondary Fill	Second	dary fill description	ne base of the glave.		
5059	Yellow	brown sand silt similar to	5038, where in the uppe	r part of the grave the w	vere diffuse
Tertiary Fill	Tertiary	ill description	e e e o, mare in me appe	r r are or and grave the w	
5038	The main	fill of the grave. Fairly firm	yellow brown sand silt.	With one square building	ng stone in the

	top of the fill.
Stone Lining No.	Stone lining description
5059 - secondary fill	Cobbles 0.2m in diameter were found in the W end. Some of the sones lined the sides and a line of
	stones ran across the west end

stones ran across the west end. **Notes:** Grave within mortuary enclosure [5003]. Stones were probably timber cist packing but they were slight and less well placed than in other graves. Thin band of fairly firm dark grey loam with occasional small stones (5039) between 5059 and 5038 may be traces of timber plank over grave.

Grave Cut	5006				
Sample No.	Find Nos.	Orientation	Length	Breath	Depth
10		ENE to WSW	2.1m	0.55 - 0.9m	0.3m
Primary Fill	Primary f	fill description			
5050	Firm grey	silt clay with very small gra	vel and stones		
Secondary Fill	Secon	ndary fill description			
5048	Packi	ng stones. Sub-rounded cobb	ples no more than 0.25m	in lengh	
Tertiary Fill	Tertiary	fill description		0	
5049	Firm grey	y brown silt with occasion ro	ounded and sub rounded	stones	
Stone Lining No.	Stone li	ning description			
5048 - secondary fill	Stones li	ined the long sides but not th	e ends and were wedged	d very close to the sides. T	The lines were
	only one	e stone deep with no stacking	g of stones.		

Notes: Within mortuary enclosure [5004]

#### **Ovens and other burnt features**

Cut No. 105					
Sample Nos	Finds Nos	Length	Breadth	Depth	Orientation
3, 5, 13		2.4m	0.75m - 1.15m	0.08m -0.22m	NE to SW
Primary fill	Primary fill description				
126	Friable black brown clay	silt, charcoal rich, som	e gravel and stones.		
Secondary fill No.	Secondary fill descri	iption			
124	Friable black brown c	lay silt with charcoal	flecks		
Tertiary fill	Tertiary fill description				
125	Friable grey brown clay si	ilt with small stones ar	nd possibly ash.		
041 611					

#### Other fills

121= fourth fill. Firm bright orange red silt clay. Red clay lining forming a bowl shape - kiln/oven lining. Then there was 123=fifth fill. Firm pale yellow brown mixed with the red clay of 121 clay silt. Likely to be animal disturbance. The final deposit was 122=sixth fill. Friable mid grey brown silt clay with small stones. Secondary Cut Fills of secondary cut

#### Secondary Cut Notes

122

C-- No

Irregular cut, generally the oven was narrower and sub rounded and the raking out pit was longer and wider. The oven showed the last used clay lining pushed up against the fill of the raking out pit indicating it being used more than once and possible suggesting the slumping of a clay built structure. The oven side of the oven was slightly under-cut creating a slight dome-like shape.

	100				
Sample Nos	Finds Nos	Length	Breadth	Depth	Orientation
80.57m		0.57m	0.08m		
Primary fill	Primary fill description				
135	Dense but thin layer of ch photos.	arcoal. Excavator thou	ught it may be a singl	e plank but not very	convincing as such in the
Secondary fil	ll No. Secondary fill descri	iption			
134	Grey-brown sandy sil	lt			
Tertiary fill	Tertiary fill description				
Other fills	· · ·				
Secondary C	ut Fills of secondary cu	t			
Notes	·				
Shallow hollo	w with charcoal in base.				

Cut No. 137					
Sample Nos	Finds Nos	Length	Breadth	Depth	Orientation
21, 109		7.9m	1.5m to 0.82m	0.28m	N to S
Primary fill	Primary fill description				
168	Firm dark red silt sand with	charcoal and burnt	clay.		
Secondary fill No.	Secondary fill descript	ion	•		
141	Stones, grey, sub-angula	ar measuring 0.6x0.	32m, 0.63x0.3m and 0.47	7x0.26m	
Tertiary fill	Tertiary fill description	-			
136	Firm black silt sand with sm	all and large sub-an	gular stones.		
Other fills		Ū.	-		
Secondary Cut	Fills of secondary cut				
Notes					
C ' C / I'I	1 ( 1 1 1 1 1 1 1	<b>F1</b> 1.4	1.4 .4 .1	2.1 1	

Curving feature. Likely to be a corn dryer with flue. The narrow end toward the north was deep with a large amount of burning and the more southern end was flat with no signs of burning. The two areas were divided by large flat stones. The northern most end turned out to be a grave 458. Was difficult to determine whether this oven was cut by two graves 432, 365 or if this oven cuts them. This was a shallow feature found to be cutting two deeper features, both graves.

Cut No. 166					
Sample Nos	Finds Nos	Length	Breadth	Depth	Orientation
033, 034, 035		2.5m	1.2m	0.58m	NE to SW
Primary fill	Primary fill description	n			
173	Stones at the base of cut	166 measuring 0.08m t	o 0.15m, possible lin	ing for the kiln.	
Secondary fill No.	Secondary fill desc	ription	-	-	
164	Hard/friable mid b	rown silt clay, cut by [10	67].		
Tertiary fill	Tertiary fill description	n			
Other fills					
Secondary Cut	Fills of secondary	eut			
167	Primary fill=169. Fi	iable black with orange	clay silt clay with ch	arcoal mixed in with	h the clay. Charcoal rich
	fill. Secondary fill=	165. Hard/friable mid b	rown silt clay with ra	re small stones.	-

#### Notes

Elongated figure of 8 shape. Oven with oven and raking out pit. 166=raking pit cut, 167=oven pit cut for oven. [167] cuts the upper fill (164) of [166]. Oven pit was deeper than raking out pit. Oven was possibly lined with stones.

Cut No. 184							
Sample Nos	Finds Nos	Length	Breadth	Depth	Orientation		
27	40	2.3m	1.0m	0.40m	NW to SE		
Primary fill	Primary fill description						
187	Very firm pink orange cla	ay with charcoal.					
Secondary fill No.	Secondary fill descr	iption					
185	Firm on the top but s and burnt bone.	oft below light brown y	vellow mottled silt cl	ay with rounded stor	nes, charcoal, burnt clay		
Tertiary fill	Tertiary fill description						
Other fills							
Secondary Cut	Fills of secondary c	ıt					
181 - raking out pit?	183 was the primary fill. Firm but easily troweled black charcoal.						
	182 was the secondary fill. Firm mid brown with yellow patches clay silt with large rounded stones and						
	charcoal flecks.						

#### Notes

Figure of 8 shape with possible clay lining. The initial [184] cut for this oven looks to have been one continuous cut for the 'oven' and the 'raking out pit', however there seems to be a recut [181] to possibly redefine the raking out pit. There are some stones in the section that were in fill (185) but seem to follow the line of cut [181]. Slight undercutting at the NW end of the feature where the 'oven' is.

Cut No. 218							
Sample Nos	Finds Nos	Length	Breadth	Depth	Orientation		
41, 50	8, 34	2.9m	0.9m	0.30m	E to W		
Primary fill	Primary fill description	n					
240	Compact red/black burn	Compact red/black burn clay and charcoal.					
Secondary fill No.	Secondary fill desc	ription					
217	Compact dark brow	n silt sand with occasion	nal sub-angular stone	s.			
Tertiary fill	Tertiary fill description	n					
Other fills							
Secondary Cut	Fills of secondary of	cut					
Notes							

The base and sides if this feature show signs of in situ intense burning. The shape in plan is that of a pit with an elongated area (elongated figure of 8 shape).

Cut No. 237					
Sample Nos	Finds Nos	Length	Breadth	Depth	Orientation
51, 52, 53, 54	32	2.8m		0.23m	E to W
Primary fill	Primary fill description				
245	Hard and friable orange yellow a	and charcoal sta	ined clay with rare sm	all gravels. Clay li	ning of kiln structure
	(furnace).				
Secondary fill No.	Secondary fill description				
244	Hard grey rounded cobbles,	embedded into	an orange red clay at t	he base of the kiln	structure.
Tertiary fill	Tertiary fill description				
243	Hard and friable mixed matrix w	vith black charc	oal, orange burnt clay	with rare grey brow	wn silt clay.
Other fills					
242 = 4th fill. Loose fin	e grained mid brown grey silt clay	y with rare large	e stones and occasional	l small sub-angula	r stones. Fill was
'stained' with charcoal w	with some rare charcoal flecks.				
Secondary Cut	Fills of secondary cut				
236	241, loose fine grained mid	brown silt clay	with regular small grav	vels.	

Notes

[236] was a small pit cutting into the E end of oven. 237 = 238: General figure of 8 built oven with one end (the west end) having a flat cobbled area where the fire was likely to have been (oven) and the eastern area quite densely filled with charcoal which probably would have been the raking out pit.

Cut No.	247					
Sample Nos	Finds Nos	Length	Breadth	Depth	Orientation	
58	10 close to pit.	0.85	0.65m	0.09m	E to W	
Primary fill	Primary fill description					
248	Compacted red silt clay, li	Compacted red silt clay, likely burning in situ.				
Secondary fil	l No. Secondary fill descri	ption				

Tertiary fill	Tertiary fill description
Secondary Cut	Fills of secondary cut
Notes	

Sub-circular patch of burning. Probable site of a fire.

249 Cut No. Depth Finds Nos Breadth Orientation Sample Nos Length NW to SE 66, 110 1.25m 16 2.3m 0.45m **Primary fill** Primary fill description 262 Soft mid brown clay silt with frequent thick lenses of charcoal especially at the base and SE end with large patches of burnt clay - similar to 261 Secondary fill No. Secondary fill description 261 Soft mid brown sand clay with frequent lenses and lumps of charcoal and burnt orange clay similar to 262 but with less charcoal. **Tertiary fill** Tertiary fill description Firm dark brown sand/silt/clay with occasional patches of charcoal and burnt clay. A concentration of large stones 251 (<0.2m) at the base. Other fills 256 - upper most fill of eastern end of the kiln. Firm mid brown clay silt with frequent flecks and lumps of burnt clay with occasional charcoal and moderately frequent large (<0.35m) sub-round stones ~ the stones did not seem to have a purpose or to have been

# deliberately positioned. Secondary Cut 272 Fills of secondary cut 273-primary fill, deposit of large (<0.15m) sub-rounded stones built up against the SE side of the pit. Possible partial lining.</td> 250-secondary fill, firm dark brown clay/sand/silt with occasional lumps of charcoal and burnt clay and moderately frequent medium stones.

Notes

[252] was a small pit cut into fill (251) - possible stone hole. Irregular oval in plan with a large bowl shaped oven [249] at the SE end. The sides of the oven were under-cut by up to 0.2m creating a domed effect. Heat affected natural was seen as the bright orange at the base of the oven part of the structure. In the centre of the structure the base steps down 0.1m into the 'raking out pit' [272] at the NW end where the sides are not under-cut with no evidence of in situ burning.

Cut No. 260								
Sample Nos	Finds Nos	Length	Breadth	Depth	Orientation			
63	28	2.46m		0.30m	NW to SE			
Primary fill	Primary fill description	1						
259	Hard friable orange clay	Hard friable orange clay with pockets of brown and black charcoal, with large lenses of charcoal. Layers of						
	charcoal and burnt clay 1	naking a small mound/l	nump					
Secondary fill No.	Secondary fill desc	ription	*					
258	Loose fine grained r amount of charcoal.	Loose fine grained mid brow with large layer of grey silt. Mix of brown silt clay and grey silt sand with a small amount of charcoal. Likely to be back filling or silting up						
Tertiary fill	Tertiary fill description	1						
257	Loose soft mid brown si	It clay and charcoal. Lik	ely to be backfilling	or silting up.				
Other fills		•		• •				
Secondary Cut	Fills of secondary c	ut						
265	·							
Notes								
Key-hole shape in pl	an with a hump/mound of he	at affected material div	iding the two compar	tments of the oven.	260=raking out pit,			
265=oven.	-		•		•			

Cut No. 278 Sample Nos 69	Finds Nos	Length 2.54m	Breadth	Depth 0.38m	<b>Orientation</b> NE to SW
Primary fill	Primary fill description				
280	Hard orange yellow clay with structure.	n charcoal lenses. F	ossible clay lining for	furnace build or c	ollapse from the top of the
Secondary fill No.	Secondary fill descripti	on			
277	Hard friable mixed yello raking or collapse of kili	w clay with black on structure.	charcoal and rare small	ll sub-rounded ston	es. Likely to deposit from
Tertiary fill	Tertiary fill description				
276	Loose mid brown silt clay wi	th rare sub-rounded	d and sub-angular stor	nes. Mixed topsoil-	like fill.
Other fills	-		-	_	
Secondary Cut 279 Notes	Fills of secondary cut				

Elongated figure of 8 in plan with oven end to the SW. The oven end undercuts the natural. Base was undulating with a possible 3rd pit at the NE end, this may be part of deliberate backfill though. The oven structure undercut the natural. There was no obvious step up or down from to the other parts of the 2 areas of the oven.

Cut No.	283				
Sample Nos	Finds Nos	Length	Breadth	Depth	Orientation
73, 74		2.33m		0.27m	NE to SW
Primary fill	Primary fill description				
291	Hard yellow orange clay w	ith patches of grey an	d black areas of conc	entrated charcoal	

Secondary fill No.	Secondary fill description
290	Loose brown clay silt with some charcoal and small stones. Possibly deliberate backfill.
Tertiary fill	Tertiary fill description
Other fills	
Secondary Cut	Fills of secondary cut
284	
Notes	

A very slight step down from the oven to the raking out pit. A hump of charcoal and burnt clay can been seen built up in the section as with ovens 105, 260 and possibly 184. The oven was lined with burnt clay; the oven was at the NE end of the feature. Figure of 8 shape in plan.

Cut No.	294					
Sample Nos		Finds Nos	Length	Breadth	Depth	Orientation
75, 78			2.25m	1.7m	0.50m	NNE to SSW
Primary fill		Primary fill description				
304		Loose brown orange fine of	lay silt mixed with bu	irnt red material with	occasional charcoa	l and heat affected clay.
Secondary fil	l No.	Secondary fill descri	ption			
292 with 307		Loose charcoal rich fi stones. 307 was small	Il of raking out pit. Fin group of stones, float	ne clay silt with <509 ing in fill 292, no put	% charcoal with rou pose.	nded and fire cracked
Tertiary fill		Tertiary fill description				
293		Firm mid brown clay silt v	with rounded and sub-	rounded stones. Poss	ible deliberate back	filling.
Other fills						-
308 = 4th fill.	Firm pale	e red brown clay silt with ro	unded and sub-rounde	d stones and gravel.	Possible later distur	bance.
Secondary C	ut	Fills of secondary cut	t	-		

#### 303 **Notes**

Oven under-cut the natural. Steps down from the raking out pit 294 to the oven 303 (0.1m). Noted on context sheet that this was wider than the other ovens (this oven was only half sectioned). Heat affected natural lay on the divide (hump) between the oven and the raking out pit. Most likely to have been one continuous contemporary cut. Irregular figure of 8 in plan where the raking out pit was very wide relative to the oven.

Cut No. 299					
Sample Nos	Finds Nos	Length	Breadth	Depth	Orientation
83		2.98m		0.50m	NE to SW
Primary fill	Primary fill descriptio	n			
326	Firm mid brown clay to collapse of structure.	clay silt with charcoal le	enses and frequent m	edium angular fire o	cracked stones. Possible
Secondary fill No.	Secondary fill des	ription			
302	Firm mostly black i stones. Build-up of	nid brown clay with a la charcoal lenses and prol	rge amount of charce bably part of 325	bal and frequent me	dium angular fire cracked
Tertiary fill	Tertiary fill descriptio	n	• •		
325	Firm mid brown clay to Probably part of 302	clay silt with charcoal le	enses, charcoal and f	requent medium ang	gular fire cracked stones.
Other fills					

#### Other fills

324= 4th fill. Loose grey brown silt clay with occasional medium rounded stones + 301 + charcoal flakes. Possible mixed topsoil. 301= stones within 324 and 325, originally thought to be a structure but later thought to be part of backfilling of collapse. Secondary Cut Fills of secondary cut

## 301 = Large concentration of stones

300 **Notes** 

oven end 299 under cut the natural by up to 0.1m, and had a red burnt/heat affected base and sides. 300 was the racking out pit end. The reddening of the natural may have been caused by the lower layers being degraded by the high temperatures at the base of the oven. General figure of 8 in plan. 301 stones originally thought to be structural looked to possible line the raking pit in mid-excavation. Elongated figure of 8 shape in plan.

Cut No.	3004						
Sample Nos	5	Finds Nos	Length	Breadth	Depth	Orientation	
12.0m			2.0m (max)	0.47 (max)	N to S		
Primary fil	1	Primary fill description	n				
3006		Firm black silty clay wit	th frequent charcoal and b	urnt clay inclusions.			
Secondary	fill No.	Secondary fill desc	cription				
3009		Firm yellow brown	silt clay with occasional r	ounded stones.			
Tertiary fil	1	Tertiary fill description	n				
3005		Firm light-mid brown si	It clay with occasional rou	inded stone cobbles.			
Other fills		-					
Secondary	Cut	Fills of secondary of	cut				
3007		3008 = Firm orange	/red clay gravel ~ heat aff	ected natural, heavy	burning in situ. 30	06 = Firm black silt clay	
		with frequent charcoal and burnt clay inclusions. 3012 = Firm orange burnt clay ~ collapse layer from					
		overlying burnt kiln	lining. $3011 = $ Firm mid l	brown silt clay. 3010	) = Firm yellow br	own silt clay with	
		occasional small sul	p-rounded stones.	•	2	-	

#### Notes

3007 was the oven part of the structure indicated by the change/heat affected base and sides and 3004 was the 'raking out pit'. Deposits 3009 and 3012 are possibly the remnants of the collapsed oven structure. Deposits 3011, 3009, 3010 and 3005 were likely to be as a result of collapse/backfilling, possibly deliberate. Two 'pit' construction key-hole shape.

Cut No.	340				
Sample Nos	Finds Nos	Length	Breadth	Depth	Orientation

89 0.8m 0.75m 0.14m **Primary fill** Primary fill description Soft black sandy silt with very frequent charcoal. Layer on base of pit. 341 Secondary fill No. Secondary fill description Firm mid brown-grey sandy silt with moderately frequent charcoal. 342 **Tertiary fill Tertiary fill description** Other fills Secondary Cut Fills of secondary cut Notes Shallow pit with layer of charcoal in base. Cut No. 382 Finds Nos Orientation Sample Nos Length Breadth Depth 2.04m 0.99m 0.31m NE to SW 98 **Primary fill** Primary fill description Firm dark brown/black silt sand with burnt clay and charcoal 381 Secondary fill No. Secondary fill description Firm brown silt sand with few small sub-angular stones and charcoal flakes throughout. 392 Tertiary fill description **Tertiary fill** Other fills Secondary Cut Fills of secondary cut Notes oven end at the SW of oven had heat affected base and sides and was a dome-like shape with the NE end the raking out pit/flue having more sloping sides. No step from one to the other. Generally figure of 8 in plan Cut No. 386 Finds Nos Breadth Depth Sample Nos Length Orientation 99 1.5m 0.44m 0.40m min NE to SW Primary fill description **Primary fill** Black charcoal < 50% in a fine silt matrix. 412 Secondary fill description Secondary fill No. Firm pale yellow clay with occasional rounded stones and charcoal ~ deposit probably cut by grave [369]. This 493 deposit could possibly be slumping/collapse of structure **Tertiary fill** Tertiary fill description 387 Generally firm mixed orange brown yellow clay with charcoal and rounded stones. ~ possible deliberate backfilling/collapse Other fills Secondary Cut Fills of secondary cut Notes Fire pit. Sub-oval shaped in plan. Distinct bands of charcoal around the E edge and on the base. Mottled orange appearance on the photos indicate some burning in situ (i.e. heated affected material). This feature cut deposit 446, secondary fill of [372] - a poss. quarrying/clay extraction pit or possible natural feature i.e. tree bole - which was a large irregular pit cut by graves [369] and [393]. This feature [386] looks to be cut by grave [369] but only very slightly. Cut No. 388 Sample Nos Finds Nos Breadth Depth Orientation Length 101 1.35m 0.70m 0.50m N to S **Primary fill** Primary fill description 406=Pale grey yellow sand silt with charcoal flecks. 389=Grey yellow silt clay. ~clay lining 406, 389 Secondary fill No. Secondary fill description 407 Friable medium brown sand silt with some gravel and small rounded stones with flecks of yellow clay. ~first slumping/collapse. **Tertiary fill** Tertiary fill description 405=Friable black pink brown sand silt with charcoal. 404=Firm dark grey silt clay with stones. 403=Firm grey 405. 404,403,402,399,398 brown silt clay with gravel and small stones. 402=Friable black charcoal rich layer. 399=Friable black brown clay silt with small stones and some larger stones with frequent charcoal rich flecks. 398=Friable orange brown clay silt with some charcoal. ~ second mixed material collapse/ raking out material. Other fills

4th fills. 400=Friable mid grey brown clay silt with charcoal flecks and small amount of burnt clay at the base of the deposit. 397=Firm mid brown clay silt with small stones and charcoal.

#### Fills of secondary cut

396=6th fill. Friable orange (clay) brown (silt) clay silt with small stones. ~possible collapse of kiln structure, bowl shape in section.

Notes

Secondary Cut

The main lower fills are a mix of charcoal lenses (some quite thick), mixed burnt clay and mid brown clay silts. The upper fills area brown clay silt and likely to be backfill or filled when the feature went out of use and exposed to the elements. Base and sides of cut were not heat affected but the feature was clay lined with yellow clay. Deposit 407 looks to be slumping/collapse of possible dome structure after one of the early firings. Fills given separate numbers have been grouped together as they are likely to be the same episode of use or collapse. The final deposit 396~possible collapse of oven structure. Sub rectangular in plan. (This seems to have been rather over-interpreted on site and the fill is just rather mixed with lenses and not as complex as represented. JK)

Cut No. 473					
Sample Nos	Finds Nos	Length	Breadth	Depth	Orientation
103		2.08m	0.9m	0.42m	E to W
Primary fill	Primary fill description				

477 <b>Secondary fill</b> 474	<ul> <li>Firm black charcoal rich deposit in the base of the east end (raking out pit) of the kiln.</li> <li>Secondary fill description         Loose, wet, grey brown and yellow patches of sand/clay silt with large rounded stones some redeposited     </li> </ul>
	natural and occasional charcoal
Tertiary fill	Tertiary fill description
Other fills	
Secondary Cut	Fills of secondary cut
Notes	
West end (oven and constantly material on top	end) under cuts the natural by 0.04m. Steps down from racking out area to the oven area. Close to area of standing water flooded. Heat affected natural at the base and sides of oven. Large amount of big stones within fill 474 with heated affected , most likely to be collapse/slumping of original structure of the oven. Slightly irregular elongated figure of 8 in plan
Cut No.	491

Sample Nos	Finds Nos	Length	Breadth	Depth	Orientation
106		1.8m	0.95	0.15m	E to W
Primary fill	Primary fill description	1			
492	Loose charcoal rich fill a	at the base and side of th	ne west end of the pit	(racking out pit).	
Secondary fill No.	Secondary fill desc	ription			
490	Loose grey brown c. stones.	lay silt mixed with rede	posited natural and s	ome charcoal with r	ounded and sub-rounded
Tertiary fill	Tertiary fill description	1			
Other fills					
Secondary Cut	Fills of secondary c	eut			
Notes					

Slight step down from raking out pit area to oven area. The east end of the feature was considered the fire pit where there was visible burnt clay/natural at the base. The raking out area (west end) was mostly filled with charcoal. There was a slight hump between the two distinct areas of the oven. Deposit 490 covers all of the oven which suggest either collapse of oven structure or deliberate backfilling. Figure of 8 shape in plan

Cut No. 5	00				
Sample Nos	Finds Nos	Length	Breadth	Depth	Orientation
-		2.6m	1.0m	0.35m	NE to SW
Primary fill	Primary fill description				
503, 506	503=Loose black dense ch	narcoal rich fill of the	NE end of the racking	g pit. 506=Large rou	unded stones sitting in
	503. ~ Part of deliberate b	ackfilling/collapse of	structure or possibly	deliberately placed.	_
Secondary fill N	No. Secondary fill descri	ption			
504	Very firm grey yellow	gravelly sand clay w	vith small rounded and	l sub-angular stones	s. Similar to natural ~
likely				C	
·	to be slumping/collap	se of the kiln structure	e.		
Tertiary fill	Tertiary fill description				
502	Firm yellow clay redeposi	ted natural ~ likely to	be collapse of the kil	n structure.	
Other fills			1		
507=4th fill. Fire	m mixed black and yellow clay wit	h pink burnt clay and	charcoal ~ part of str	ucture collapse. 505	5=501=5th fill. Very firm
brown clay silt v	vith rare flecks of charcoal ~ part o	f backfilling/collapse	1	1	
Secondary Cut	Fills of secondary cu	t			
499	498 = modern disturba	ance			
Notes					

Elongated figure of 8 with the fire pit at NE and the racking out pit at the SW end. The NE end undercut the natural by 0.04m with areas of heated affected clay/natural on the sides and base. Step down from NE to SW end with a slight raised hump between them. Modern disturbance cut into oven chamber.

Cut No. 508					
Sample Nos	Finds Nos	Length	Breadth	Depth	Orientation
		1.4m	0.7m	0.12m	E to W
Primary fill	Primary fill description				
510	Firm mid grey brown clay	/sand/silt with small s	ub angular stones ~		
Secondary fill No.	Secondary fill descri	ption			
509	Soft very dark grey bl	ack charcoal rich sand	l silt with occasional	small sub-angular st	ones.
Tertiary fill	Tertiary fill description			-	
Other fills					
Secondary Cut	Fills of secondary cut	t			
Notes	-				
Hanvily truncated over	Fire nit at the east and and	raking out nit at the u	ast and Stan down (	1m from E and to V	V and Canaral figura

Heavily truncated oven. Fire pit at the east end and raking out pit at the west end. Step down 0.1m from E end to W end. General figure of 8. Heat affected natural at fire pit end. Relationship between fills was difficult to determine as the feature was so shallow at the point at which the relationship occurred.

Cut No. 511					
Sample Nos	Finds Nos	Length	Breadth	Depth	Orientation
-		1.3m	0.9m	0.20m	E to W
Primary fill	Primary fill description				
514	Firm dark grey black sand	silt with <75% charce	oal		
Secondary fill No.	Secondary fill descri	ption			
513	Layer of flattish stone	es overlying 514 ~ pos	sibly part of delibera	te backfilling, no ev	idence of burning on the
	stones and very little	charcoal in the fill abo	ove them.	-	-
Tertiary fill	Tertiary fill description				

Firm grey brown clay silt with small flat and sub-angular stones ~ possibly natural silting up of exposed feature or backfill/collapse.

Other fills

# Secondary Cut Fills of secondary cut Notes

Sub circular fire pit. Unlike most other burnt features within the area. Burnt orange edges and base. There was a small dip at the W end of the cut which did not have affected edges but did contain charcoal, could have been a possible stake hole.

Cut No.	5009					
Sample Nos		Finds Nos	Length	Breadth	Depth	Orientation
21		2.78m	1.4m	0.40m	N to S	
Primary fill	Pr	imary fill description				
5035	Fin	rm pale mid yellow bro posed (natural)	wn clay silt with small	rounded stones ~ sil	ting at the base of 5	009 when feature was
Secondary fi	ll No.	Secondary fill descr	iption			
5023		Loose dark grey brov	vn sand silt with charco	al (<30%) and small	rounded stones,	
Tertiary fill	Te	ertiary fill description				
5024	Fii	rm mid brown fine silt.				
Other fills						
5068 = 5th fil	l. Bright oran	ge silt clay with small s	tones and charcoal ~ pa	art of collapse of 'dor	me' structure of over	n part of kiln. $5025 = 6$ th
fill. Very firm	n pale yellow	brown silt clay with oc	casional rounded stone	s ~ part of collapse a	nd silting up of feat	ure.
Secondary C	ut	Fills of secondary cu	ıt		• •	
5022		5034= 7th fill. Firm b	out fragile due to thickn	ess bright orange bu	rnt deposit silt clay	with occasional rounded
		stones. Heat affected	soil which diffused fro	m bright orange (und	lerside) to yellowish	n (outer side) silt clay.

#### Notes

oven pit under cuts natural. Both cuts are contemporary and form the two separate elements of the oven. There was a ridge/ hump of coloured heat affected material, charcoal and stones dividing the two areas. 5009 was the raking out pit and 5022 was the oven area. 5034 would have originally pre-dated 5025. 5034 and 5068 were probably both soils originally forming an overhanging roof to the oven. When in situ it was burnt red on its underside causing the red band seen in plan and section. After abandonment it seems 5068 broke off from the main structure as collapse and 5034 slumped into the pit as a coherent chunk, slipping down and rotating slightly. This strongly suggests that the oven was roofed and the roof material was in situ soil with the oven burrowed into it. This would have been have always been a fragile structure. Elongated figure of 8 in plan.

#### **Other features**

Feature number: 131 Feature type: Pit/posthole Cut description: Sub-circular small pit or posthole. Fill numbers: 132 Fill descriptions: Grey-brown sandy silt. No packing stones. Period: Unknown Feature number: 133 Feature type: Pit Cut description: Very truncated circular. Fill numbers: 134, 135 Layer of dense charcoal in base of the pit (135), with brown sandy silt fill above (134). Fill descriptions: Period: Unknown Feature number: 142 Feature type: Stone hole Small irregular cut within are of enclosure 111 Cut description: Fill numbers: 143 Contains modern pottery (blue and white and Buckley ware). Fill descriptions: Period: Post medieval Feature number: 154 Feature type: Ditch Cut description: Straight ditch aligned almost exactly north-south. Shallow and badly truncated in places. It fades out at the southern end before reaching a group of graves. The relationships are not very clearly defined but it does cut enclosure 152 and seems to be over lain by the fill of oven 137. It is cut by ditch 158. Fill numbers: 153 Fill descriptions: Dark brown sandy silt Period: Post cemetery/ pre corn drier Feature number: 156 Feature type: Ditch Cut description: Straight ditch that runs west-south-west to east-north-east then turns to run south-east on same alignment as 489. Cut at west-south-west end by 158, which runs on same alignment. Fill numbers: 155 Fill descriptions: Dark brown sandy silt. No dating evidence. Period: Post medieval?

Feature number: 158

Feature type: Ditch Straight ditch that runs west-south-west to east-north-east. Terminal seems to curve to south-east. Cuts ditch 156, and Cut description: is wider and deeper than this ditch. Also cuts several graves which are on exactly the same alignment as the ditch. Fill numbers: 157 Fill descriptions: Dark brown sandy silt. No dating evidence. Period: Post medieval? Feature number: 190 Feature type: Pit Cut description: Sub-rectangular cut aligned nearly north-south. Sides of cut are generally about 45 degrees and base is flat. Three large stones in the base filling much of the feature. Pit possibly to bury the stones. This was initially suggested to be a grave but there is no reason to suspect this. Fill numbers: 199.317.337 Fill descriptions: 199: Main fill. Firm dark brown sand silt with rare charcoal flecks and slate pieces as well as moderately frequent poorly sorted sub-round stones (0.15m). 317: Short line of stones poorly sorted sub-rounded stones 0.1m-0.55m. 337: Firm mid grey brown sand silt with moderately frequent charcoal flecks and small stones (<0.1m) Period: Medieval Feature number: 191 Feature type: Ditch Cut description: Straight ditch aligned north-west to south-east. Parallel to field boundary on 19th maps, possibly a sub-division of the field or a drainage ditch. Fill numbers: 192 Fill descriptions: Grey-brown sandy silt with some stones. Period: Post medieval 193 Feature number: Feature type: Pit Cut description: Elongated oval pit Fill numbers: 194 Grey-brown sandy silt with small sherd of late post medieval pot. Fill descriptions: Period: Post medieval Feature number: 195 Feature type: pit Cut description: Small sub-circular pit Fill numbers: 196 Grey-brown sandy silt with brown glass bottle sherd. Fill descriptions: Period: Post medieval **Feature number:** 205 Feature type: Pit Cut description: Sub-circular steep sided pit, possibly a posthole but no post-packing. Isolated feature. Fill numbers: 206, 207 Fill descriptions: Fills are firm grey brown silty sand, with some redeposted natural in base Period: Unknown Feature number: 210 Feature type: Ditch Cut description: Straight ditch aligned north-west to south-east. Continuation of 191 Fill numbers: 211 Fill descriptions: Grey-brown sandy silt with some stones. Period: Post medieval Feature number: 221 Feature type: Pit/posthole Cut description: Small sub-circular feature cutting through the fills of graves 219 and 223. Possible posthole but no packing stones. Fill numbers: 222 Fill descriptions: Dark brown clayey silt Period: Unknown Feature number: 233 Feature type: Pit Cut description: Oval pit with fairly steep sides. Located at eastern end of oven 218. Fill numbers: 232 Fill descriptions: Dark brown silty sand Period: Unknown 254 Feature number: Feature type: Pit Cut description: Small shallow sub-circular pit with fairly gently sloping sides. Close to east end of fire site 247. Fill numbers: 225 Fill descriptions: Dark brown sandy silt with fragments of charcoal Period: Unknown

Feature number: 266 Feature type: Pit Cut description: Sub-circular stone filled pit. No dating evidence but possibly post medieval. Fill numbers: 267 Fill descriptions: Grey-brown sandy silt with frequent large stones. Period: Post medieval? Feature number: 270 Feature type: Ditch Cut description: Sinuous ditch running WNW to ESE then curving to NE and finally curving round to run nearly due east. **Fill numbers:** 271, 327 The fill was a dark brown sandy silt, becoming stonier towards the base of the cut. It contained a sherd of samian ware Fill descriptions: and two fragments of redware, possibly also Roman. **Period:** Roman? Feature number: 312 Feature type: Track? Cut description: Compact deposit of stone and gravel possibly forming surface of track running parallel to ditch 156. Fill numbers: Fill descriptions: Period: Post medieval? Feature number: 315 Feature type: Pit Cut description: Roughly triangular pit with grey-brown sandy silt fill containing 19th century pottery. Fill numbers: Fill descriptions: Period: Post medieval Feature number: 316 Feature type: Pit Cut description: Sub-circular pit with grey-brown sandy silt fill containing 19th century pottery. Fill numbers: Fill descriptions: Period: Post medieval Feature number: 318 Feature type: Pit Cut description: Shallow, rather irregular sub-circular pit with traces of heat reddening on base and a layer of charcoal and burnt stones. Possible fire pit. Fill numbers: 319, 322 Fill descriptions: 319=Very dark brown sandy silt with burnt stone and charcoal. 322=Orange-brown silty sand, with no charcoal or burnt stone. Period: Late Neolithic Feature number: 323 Feature type: Stonehole Cut description: Sub-circular feature with soft fill. Probably where a large stone has been pulled out by the plough. Fill numbers: Fill descriptions: Period: Unknown Feature number: 338 Feature type: Ditch? Cut description: Possible terminal of ditch. Rounded end, aligned north-south. Fill numbers: 339 Fill descriptions: Grey-brown sandy silt. Period: Post medieval? Feature number: 340 Feature type: Pit Shallow sub-circular pit. Cut description: **Fill numbers:** 341, 342 Fill descriptions: Black charcoal rich deposit (341) in base. Main fill (342) is a brown sandy silt with occasional charcoal. Period: Unknown Feature number: 345 Feature type: Ditch Cut description: Ditch running mainly straight north-south with curve to south-east at southern end. Continuation of 154. Fill numbers: 346 Fill descriptions: Grey-brown sandy silt Period: Post cemetery/ pre corn drier Feature number: 351 Feature type: Root hollow

Cut description: Irregular elongated hollow initially thought to be terminal of 345 but seems to be separate feature, probably a root hollow. Fill numbers: Fill descriptions: Period: Unknown Feature number: 354 Feature type: Small patch of burnt bone and charcoal Cut description: Fill numbers: Fill descriptions: Dark grey silt with burnt bone and charcoal, not in a visible cut. Period: Unknown Feature number: 355 Feature type: Root hollow Very irregular shallow hollow. Cut description: Fill numbers: 356 Fill descriptions: Reddish brown clayey silt with some stone. Period: Unknown Feature number: 372 Feature type: Natural hollow Cut description: Very irregular large hollow possibly caused by tree roots Fill numbers: 373 Fill descriptions: Brown clayey silt with some stones **Period:** Natural Feature number: 374 Feature type: Ditch Cut description: Straight ditch running WNW to ESE parallel to N side of ditch 421. Former hedge boundary. Fill numbers: 375 Fill descriptions: Grey-brown sandy silt containing 19th century pottery. Period: Post medieval Feature number: 378 Feature type: Natural hollow Cut description: Fairly regular sub-circular hollow. Fill numbers: 379 Fill descriptions: Grey-brown sandy silt with some stone. Period: Unknown Feature number: 383 Feature type: Natural hollow Cut description: Fairly irregular sub-circular hollow. Fill numbers: 384 Fill descriptions: Grey-brown sandy silt with some stone. **Period:** Unknown Feature number: 390 Feature type: Pit Cut description: Well defined oval pit. Undated but possibly post medieval. Fill numbers: 391 Fill descriptions: Grey-brown sandy silt with frequent stones. Period: Post medieval? Feature number: 408 Feature type: Pit Cut description: Fairly irregular sub-oval pit **Fill numbers:** 409, 413, 414, 415, 416, 417 Sequence of fills, some representing slumping of the sides. Mostly brown sandy silt and several containing sherds of Fill descriptions: late post medieval pot. Period: Post medieval Feature number: 410 Feature type: Ditch Cut description: Shallow curving ditch. Lies within paddock shown on 1918 map and does not seem to be aligned on the later features so possibly an earlier ditch. Fill numbers: 411 Grey-brown sandy silt with no dating evidence. Fill descriptions: Period: Roman?? Feature number: 418 Feature type: Pit/posthole Cut description: Small circular feature cutting S edge of pit 408 Fill numbers: 419

Fill descriptions: Grey brown sandy silt Period: Post medieval Feature number: 421 Feature type: Ditch Cut description: Straight ditch running SSW to NNE then turning sharply to run ESE to form corner of enclosure. Does not appear on the old maps but presumably related to the farm in this area. Fill numbers: 420 Fill descriptions: Grey-brown sandy silt no dating evidence found but comparison with 374 suggests a late date. Period: Post medieval Feature number: 422 Feature type: Pit? Cut description: Fairly regular sub-oval pit dug against boulder. Could be hollow where a large stone was removed but may be genuine pit. Fill numbers: 423 Fill descriptions: Grey-brown sandy silt Period: Unknown Feature number: 434 Feature type: Posthole Cut description: Circular steep sided posthole. One of a group. Fill numbers: 433 Fill descriptions: Dark brown silty clay with fairly large sub-rounded packing stones around sides of cut. Period: Post medieval? Feature number: 436 Feature type: Posthole Cut description: Circular steep sided posthole. One of a group. Fill numbers: 435 Dark brown silty clay with fairly large sub-rounded packing stones around sides of cut. Fill descriptions: Period: Post medieval? Feature number: 438 Feature type: Posthole Cut description: Circular steep sided posthole. One of a group. Fill numbers: 437 Dark brown silty clay with fairly large sub-rounded packing stones around sides of cut. Fill descriptions: Period: Post medieval? 440 Feature number: Feature type: Posthole Cut description: Circular steep sided posthole. One of a group. Fill numbers: 439 Fill descriptions: Dark brown silty clay with fairly large sub-rounded packing stones around sides of cut. **Period:** Post medieval? Feature number: 442 Feature type: Posthole Cut description: Small circular steep-sided posthole. One of a group. Fill numbers: 441 Fill descriptions: Dark brown silty clay with small packing stones around sides of cut. Period: Post medieval? Feature number: 444 Feature type: Posthole? Cut description: Circular slight possible posthole. Fill numbers: 443 Fill descriptions: Dark brown silty clay with 2 packing stones. Period: Post medieval? Feature number: 470 Feature type: Pit Sub-oval shallow cut, aligned SE to NW, within mortuary enclosure 152. This was initially recorded as a grave. The Cut description: context sheet says it cuts ditch 152 but there is no evidence of this, rather than the other way round. It is in the wrong position and wrong orientation for a grave and the sides slope too gradually. The fill is described as being very similar to natural and that is probably because this was a variation in the natural and not a real feature. Fill numbers: 469 Fill descriptions: Firm, dark mottled brown silt clay, very similar to natural Period: Natural Feature number: 472 Feature type: Burnt tree root hollow Cut description: Group of small slight features containing burnt soil and charcoal within an area defined by large natural boulders. Cut numbers (483, 485, 487, 495, 497)

Fill numbers: 482, 484, 486, 494, 496 Fill descriptions: Period: Unknown Feature number: 479 Feature type: Pit Cut description: Oval stone-filled pit **Fill numbers:** 480, 481 Loose brown sandy silt with numerous large stones Fill descriptions: Period: Post medieval? Feature number: 489 Feature type: Ditch Cut description: Straight, shallow ditch with rounded south-eastern terminus. Aligned north-west to south-east. Terminal cuts oven 491. Possibly related to 156. Fill numbers: 488 Fill descriptions: Grey brown loamy silt. Period: Post medieval? Feature number: 515 Feature type: Wall **Cut description:** Base of a slate fence. Shown as a field boundary on the 19th century maps. Fill numbers: Fill descriptions: Period: Post medieval **Feature number:** 516 Feature type: Building Cut description: Small rectangular brick building aligned NW to SE. Seems to lie north of the buildings shown on the 1918 map but presumably related in some way to the farm. Fill numbers: Fill descriptions: Period: Post medieval Feature number: 517 Feature type: Building Cut description: Nearly square structure with wall projecting to NW. Seems to lie north of the buildings shown on the 1918 map but presumably related in some way to the farm. Fill numbers: Fill descriptions: Period: Post medieval Feature number: 518 Feature type: Wall Bases of slate fences, one running SW to NE and the other SE to NW to create a right angled corner. The northern Cut description: fence was the northern boundary of the paddock east of the farmstead in plot D. The other must have been an internal division. Fill numbers: **Fill descriptions:** Period: Post medieval 5007 Feature number: Feature type: Gully Cut description: Narrow curving gully running SW then W from the S corner of mortuary enclosure 5004. Possibly associated with this enclosure but no direct stratigraphic relationship between them. Fill numbers: 5067 Fill descriptions: Dark brown-grey clayey silt with charcoal flecks Period: Medieval Feature number: 5008 Feature type: Gully Very truncated remains of shallow curving gully. Less regular than 5007. Cut by [5065]. Cut description: Fill numbers: 5066 Fill descriptions: Dark grey-brown silt with flecks of charcoal. Period: Unknown Feature number: 5010 Feature type: Ditch Cut description: Right angled corner of a shallow ditch. Runs NE to SW then turns sharply to the NW. Presumably the corner of an enclosure related to Maes y Barker Farm, although nothing is shown on the maps. Fill numbers: 5021 Fill descriptions: Grey brown silt with late post medieval pottery including blue and white ware, glass and roofing slates. Period: Post medieval

Feature number: 5011 Feature type: Pit Cut description: Neat well-defined sub-rectangular pit. WNW to ESE alignment. Does not seem to be right shape or orientation for a grave. Fill numbers: 5028 Fill descriptions: Soft dark brown silt Period: Unknown Feature number: 5012 Feature type: Root hollow Cut description: Irregular shallow hollow, probably root hollow. Charcoal in fill may suggest clearance by burning. Fill numbers: 5020 Fill descriptions: Loose grey-brown sandy silt with some charcoal. Period: Unknown Feature number: 5013 Feature type: Pit Sub-square cut with near vertical sides and very stony dark brown fill. Smell suggested fairly recent animal burial and Cut description: excavation of the pit was abandoned due to risk of biohazard. Fill numbers: Fill descriptions: Period: Modern Feature number: 5014 Feature type: Pit Cut description: Slightly figure of 8 shaped steep sided pit. Fill numbers: 5030, 5029 Fill descriptions: Dark brown sandy silt with some orange brown eroded silt around the sides. Period: Unknown Feature number: 5015 Feature type: Root hollow Cut description: Very irregular amorphous hollow. Fill numbers: 5031 Fill descriptions: Dark grey-brown clayey silt Period: Unknown Feature number: 5016 Feature type: Stonehole? Small sub-circular hollow Cut description: Fill numbers: 5032 Fill descriptions: Soft dark brown silt **Period:** Unknown Feature number: 5017 Feature type: Stonehole? Cut description: Small sub-circular hollow Fill numbers: 5033 Fill descriptions: Soft dark brown silt **Period:** Unknown Feature number: 5018 Feature type: Natural feature Cut description: Shallow irregular hollow, probably a natural feature. Fill numbers: 5037 Fill descriptions: Soft brown silt Period: Unknown 5019 Feature number: Feature type: Animal burrow Cut description: Sub-circular cut, quite well defined but irregularities suggest it may be a chamber of an animal burrow. Fill numbers: 5036 Fill descriptions: Soft dark brown silt Period: Unknown Feature number: 5027 Feature type: Root hollow Irregular sub-oval hollow, probably a root hollow or similar natural feature. Cut description: Fill numbers: 5026 Fill descriptions: Soft brown silt Period: Unknown Feature number: 5065 Feature type: Pit Cut description: Irregular sub-square cut with steep sides. Probable recent machine dug pit. 5064 Fill numbers:

Fill descriptions: Dark grey soft sandy silt with organic matter.

Period: Modern
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Figure 1. Location of the site (shown in red) and main Roman features (grey) Based on OS 1:10,000 scale maps. © Crown copyright. All rights reserved. Licence number AL 100020895.





Figure 2. Location of plots, evaluation trenches and features, with geophysical surveys for plots B and C superimposed



Figure 3. Location of HER sites and listed buildings near the site Based on OS 1:10,000 scale maps. © Crown copyright. All rights reserved. Licence number AL 100020895.









Figure 7. East facing section across mortuary enclosure 109 and its grave



Figure 8. West facing section across mortuary enclosure 108 and its graves



S -∲- ⅔.51mOD

Dug during evaluation

Ditch 108









[5007] 5067	Key section line edge of excavation
	Figure 11. Plan of mortuary enclosure [5004] and gully [5007]
49025	49030



Figure 14. North-west facing section of mortuary enclosure ditch [5004] showing possible recut [5052]

Figure 15. East facing section of mortuary enclosure ditch [5004] showing gully [5007]

Possible recut [5052] 5057 5053 0 5051 Ditch 5004

51.37m <u>OD</u> -∳-







Figure 21. South-west facing section of oven [184] (plan part of figure 6)



Figure 22. North-east facing section of oven [249] (plan part of figure 6)



Figure 23. East-north-east facing section of oven [294] (plan part of figure 6)







Figure 25. Plan oven [5009]



Figure 27. Plan and section of pit/oven [511]

Figure 26. Plan and section of pit [388]



Figure 28. West-north-west facing section of pit [386] and hollow [272] (plan part of figure 6)

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Figure 30. South facing section of pit [190] (plan part of figure 6)

Figure 29. Plan and section of pit [318]











Figure 34. Part of the 1777 survey of Vaenol Estate (Vaynol Papers 4056, p97) Plot A is marked as 'G3'



Figure 35. Part of 1842 tithe map for the parish of Llanbeblig Plot A is the field marked '1543', plot B is land parcel '1552' and plot C is '1542'







Figure 38. Roman pottery

Samian ware: sf510 and sf513, samian ware from context (5057) in mortuary enclosure [5004]; sf03 from fill of mortuary enclosure [109]; sf05, from fill of ditch [270]

Black-burnished ware: sf01, neck of jar from fill of ditch [022]; sf42, from fill of mortuary enclosure [108] Mortarium: sf15, from fill of grave [146]



Plate 1. Aerial photograph of plot A in 2006 (copyright Royal Commission on the Ancient and Historical Monuments of Wales)



Plate 2. Aerial photograph of the cemetery in plot A during phase IV excavations in 2010 (courtesy of Gwynedd Archaeological Planning Service)



Plate 3. Mortuary enclosure [108] and graves from east



Plate 4. Mortuary enclosure [109] and graves from south-east



Plate 5. Mortuary enclosure [152] from east



Plate 6. Grave [5006] from north-east



Plate 7. Grave [200] from north-east



Plate 8. Graves [219] and [223] from north-east



Plate 9. Section of grave [200] showing stones built up against the sides from north-east



Plate 10. Mortuary enclosures [5003] and [5004] in plot B from south



Plate 11. Possible plank stain in grave [5005] from north-east







Plate 13. Sf504 in top of fill of grave [5005], from south-west



Plate 14. Oven [5009] fully excavated from north-west



Plate 15. Oven [105] fully excavated from north-east



Plate 16. Oven [184] half excavated from south-west



Plate 17. Ovens [278] and [260/279] half excavated from north-west



Plate 18. Oven [5009] half excavated showing collapsed roof material over fire chamber from south-east



Plate 19. Oven [249] half excavated showing collapsed roof material in fire chamber from south-west



Plate 20. Section of fire chamber in oven [5009] showing red collapsed roof material, from north-east



Plate 21. Section of oven [260] showing raked-out layers, from north-east



Plate 22. Section of oven [5009] showing layers built up in rake-out pit, from north-east



Plate 23. Structure (035) from the south-west



Plate 24. Structure (035) with structure (040) and other glasshouse remains in the background, from the south-east



Plate 25. South facing wall of cottage PRN 31083, from the south-west



Plate 26. Structure (009) from the south-west



Plate 27. Structure (009) and related features from the north



Plate 28. Children at Ysgol yr Hendre questioning GAT Outreach team leader Anita Diamond about archaeology



Plate 29. Anita Diamond helps children at Ysgol yr Hendre with an activity based on the excavations on the site of their school



Gwynedd Archaeological Trust Ymddiriedolaeth Archaeolegol Gwynedd



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