

DINAS DINLLE: EXCAVATION OF AN ERODING HILLFORT

Interim report - community excavations 2022



Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust



Comisiwn Brenhinol Henebion Cymru
Royal Commission on the Ancient and Historical Monuments of Wales

DINAS DINLLE: EXCAVATION OF AN ERODING HILLFORT

Interim report - community excavations 2022

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Prepared for: Cadw

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Written by: David Hopewell and Neil McGuinness

Illustrations by: David Hopewell and Neil McGuinness

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Cyhoeddwyd gan Ymddiriedolaeth Achaolegol Gwynedd
Ymddiriedolaeth Archaeolegol Gwynedd
Craig Beuno, Ffordd y Garth,
Bangor, Gwynedd, LL57 2RT

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Craig Beuno, Garth Road,
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Cadeiryddes/Chair - David Elis-Williams
Prif Archaeolegydd/Chief Archaeologist - Andrew Davidson, B.A., M.I.F.A.

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Crynodeb

Cwblhaodd Ymddiriedolaeth Archaeolegol Gwynedd ail raglen o waith cloddio cymunedol ar fryngaer Oes yr Haearn Dinas Dinlle, yn 2022. Cloddiwyd dwy ardal yn agos at ymyl y clogwyn sy'n erydu. O'r ardal gyntaf, datgelwyd tŷ crwn 13.6m o ddiamedr gyda waliau anarferol o drwchus, 2.7m, a mynedfa ar yr ochr ddwyreiniol. O'r crochenwaith a ddarganfuwyd o'r haenau anheddu, daeth yn amlwg y defnyddiwyd y tŷ crwn hwn yn ystod y cyfnod Brythonig-Rufeinig. O'r ail ardal, gwelwyd ail dŷ crwn, llai swmpus, yn dyddio o Oes yr Haearn o bosib, a oedd wedi ei adael a'i ail-lenwi â cherrig. O ben deheuol y gwaith cloddio, darganfuwyd clawdd o gerrig a theras gydag ardal eang o bridd yn dangos effaith llosgi neu wres ac yn cynnwys amryw o jariau Rhufeinig, yn deilchion, sy'n debygol o ddynodi ardal o weithgarwch domestig.

Summary

Gwynedd Archaeological Trust carried out a second programme of community excavation at Dinas Dinlle Iron Age hillfort in 2022. Two areas close to the eroding edge of the coastal cliff were excavated. The first uncovered a 13.6m diameter roundhouse with unusually substantial 2.7m thick walls and a doorway on the eastern side. Pottery from the occupation layers showed that the roundhouse was used in the Romano-British period. The other area uncovered a second, more lightly-built roundhouse, possibly dating from the Iron Age, which had fallen out of use and been backfilled with stones. The southern end of the excavation revealed a stone bank and terrace with a large area of heat affected earth containing several smashed Roman jars probably indicating domestic activity.

G2608b DINAS DINLLE: EXCAVATION OF AN ERODING HILLFORT

1. INTRODUCTION

Dinas Dinlle hillfort (NGR SH43705635; PRN 1570, Scheduled Monument CN048; NPRN 95309) is set on top of a prominent coastal hill about 7.5km south west of Caernarfon. The hill itself is a glacial moraine and is a Site of Special Scientific Interest. The site is owned by the National Trust.

The hilltop was modified in the Iron Age to form a fort surrounded by a huge inner rampart a deep ditch and a second outer rampart. The western edge of the fort currently consists of a steep cliff of glacial clays, silts, and stones standing above the sea. This is undergoing coastal erosion as a result of both storm damage from the sea and water running off the land. Severe weather events, which are increasing as a result of climate change, are thought to be playing a major part in the ongoing erosion. The western ramparts have been lost over the last few hundred years and the fort is eroding at a rate of up to 0.4m per year. It is generally accepted that it will not be possible to halt the erosion and that the whole of Dinas Dinlle will be lost to the sea within 500 years. Finds occasionally erode from the cliff and are found on the beach showing that archaeological features in the interior of the fort are being lost to erosion. These include coins from the mid to late third century demonstrating that the site was in use during the Roman occupation.

The first official excavation at Dinas Dinlle took place in 2019 under the auspices of the CHERISH project. CHERISH (Climate, Heritage and Environments of Reefs, Islands and Headlands) is a 5 year European-funded Ireland-Wales project between the Royal Commission on the Ancient and Historical Monuments of Wales, the Discovery Programme: Centre for Archaeology and Innovation Ireland, Aberystwyth University: Department of Geography and Earth Sciences and Geological Survey, Ireland.

Gwynedd Archaeological Trust (GAT) was commissioned to undertake archaeological works at Dinas Dinlle which included targeted evaluation/excavation of two areas within the hillfort and evaluation of a large area to the south of the fort. The project was undertaken between the 5th and 23rd of August 2019 and included community and volunteer engagement.

The current project is the second phase of investigation of Dinas Dinlle. Gwynedd Archaeological Trust was grant aided by Cadw to excavate two areas (Fig. 1) in order to further investigate the features within the two evaluation trenches located in the fort that were excavated in 2019. Additional funding was provided by the National Trust, and the Welsh Areas of Outstanding National Beauty (AONB) (Sustainable Development Fund). The CHERISH project agreed to provide some elements of specialist post-excavation services. The Area of Outstanding National Beauty (AONB) element of the project was funded under a wider project "Dinas Dinlle and Llŷn - landscapes of antiquity and myth" that aimed to produce clearer understanding of the way two sites that feature in the Fourth Branch of the Mabinogi, Dinas Dinlle and Craig y Dinas (Pontllyfni), were seen in the Middle Ages, and how they entered stories and narratives. An interim report was produced (Hopewell 2021) and the results of fieldwork at Craig y Dinas appear in a separate report (Hopewell 2022).



Fig. 1 Location of excavation trenches in 2021

Bangor University was an additional partner in the project. The excavation allowed students to gain valuable experience of excavation and the university provided post-graduate supervisors.

2. OUTREACH

The project was run as a community excavation and a training dig for students. A total of 44 volunteers and 16 students participated in the project. A public open day was held on September 4th. Guided tours of the Dinas Dinlle and the excavations were given in English and Welsh throughout the day. Approximately 260 people attended the tours.

Engagement with young people was an important part of the outreach programme. This was carried out by Dan Amor GAT's Education and Outreach Officer and was achieved through activities with schools and the Young Archaeologist's Club (YAC). There were 4 school visits to the site and 5 classroom visits involving Ysgol Felinwnda, Ysgol Llandwrog, and Ysgol Dyffryn Nantlle. A YAC session was held on August 29th allowing 13 members to participate in hands-on archaeological excavation.

The press were invited to the excavations and two radio and two TV interviews were broadcast along with two newspaper articles.

3. ARCHAEOLOGICAL AND HISTORIC BACKGROUND

Dinas Dinlle is a bivallate Iron Age hillfort with an internal area of 1.5ha standing on a glacial thrust-block moraine at a height of around 25m OD. It stands on the coast and overlooks the sand spit of Morfa Dinlle along the coast to the north and low-lying reclaimed marshland at a height of about 2m OD to the north-east and east. The coastal plain to the south is low and undulating with the remains of another smaller moraine 0.7km along the coastline. The coastal edge is characterised by cliffs of eroding glacial deposits and the western side of the fort has been lost to the sea.

The earthworks of the fort comprise two earth and stone ramparts with a deep ditch in between. The entrance consists of a simple gap in the ramparts on the south-eastern side. The ramparts enclose a fairly level area with low earthworks visible on the eastern side. The largest of these is a prominent rounded mound. It has been suggested that this is either a Bronze Age burial mound (RCAHMW 1960, 190) or the remains of a tower, possibly a Roman Pharos (RCAHMW <https://coflein.gov.uk/en/site/95309>) but no definite evidence has emerged. The other earthworks have been interpreted as four roundhouses on the eastern side alongside two rectilinear enclosures (RCAHMW 1960 190). A detailed topographic survey was carried out for the National Trust by the Muckle Partnership in 2004 (see Smith 2005 Fig. 26). This was followed by a gradiometer survey by Gwynedd Archaeological Trust in 2005 (ibid Figs 25 and 27b) which revealed further probable roundhouses in the centre and south of the enclosure.

It is assumed that the hillfort was constructed in the Iron Age but chance finds, some of which have eroded from the cliff demonstrate that it was occupied in the Roman Period. The finds include Roman coins with a date range of AD 253-296, an intaglio representing Victory with a trophy and black burnished ware pottery.

Dinas Dinlle was used as a golf course in the early 20th century (Fig. 2) The Caernarvon and Denbigh Herald recorded that “The links at Dinas Dinlle were formally opened” in early June 1906. The remoteness of the course resulted in its closure a year later but it appears to have been taken over by the nearby Caernarvon Bay Hotel (now Y Wendon holiday apartments) and continued in use until about 1920.

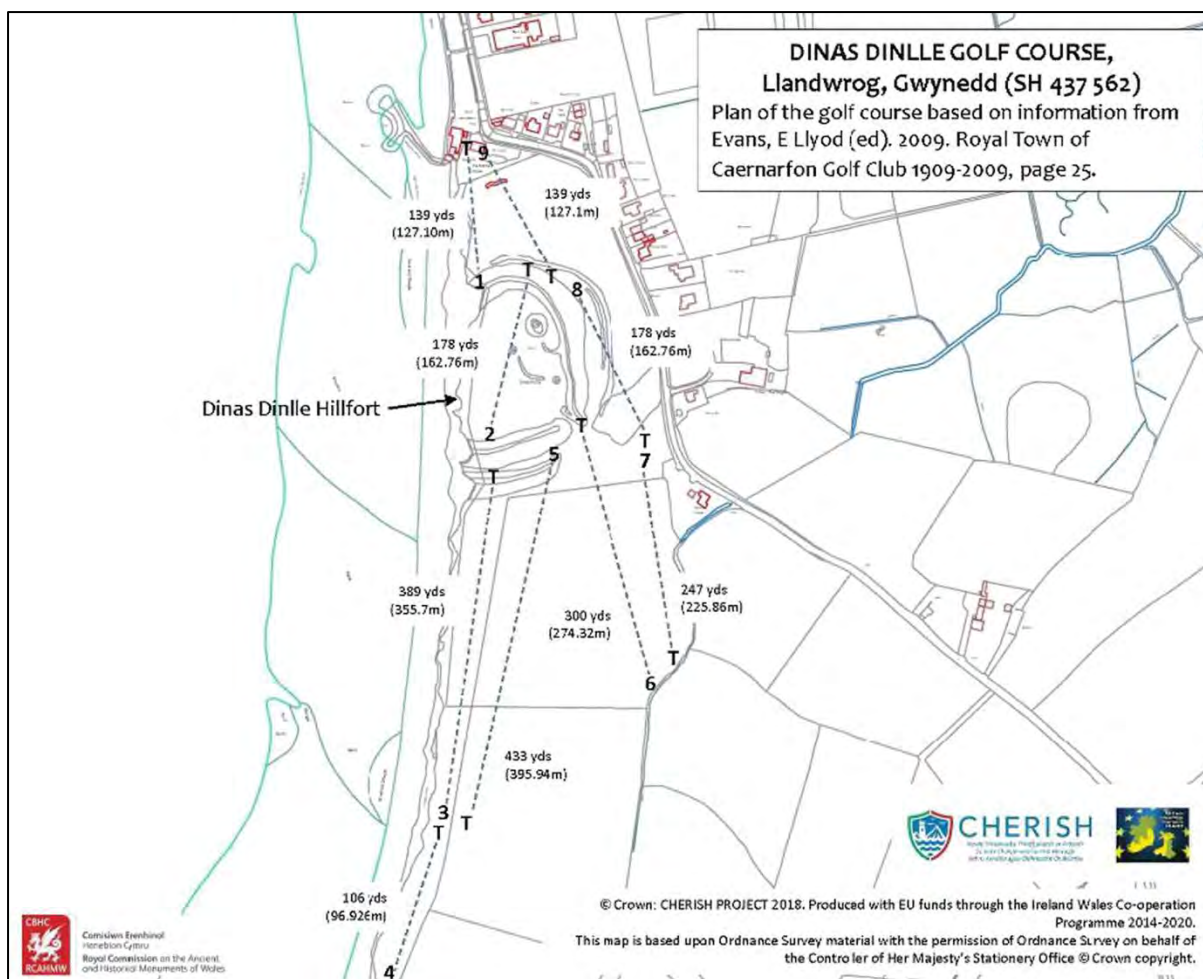


Fig. 2 Dinas Dinlle golf course (from CHERISH project 2018 Fig. 4)

The CHERISH project initiated a programme of works in 2017 and a new geophysical survey was carried out by Gwynedd Archaeological Trust covering all accessible parts of the fort, and a large featureless field to the south (Fig. 3). The survey revealed further details of the fort and the remains of a farmstead shown on the 1849 tithe map (see below). In addition new topographic (GNSS), laser and photogrammetric survey was carried out by RCAHMW and in 2019 cliff-face excavation and sampling was carried out by CHERISH staff from the Royal Commission and Aberystwyth University.

The 2019 excavations were carried out over 3 weeks by GAT staff, CHERISH staff, and local volunteers. Two assessment trenches were excavated within the fort and six were excavated in the field to the south (Lynes et al 2021). The two trenches within the fort targeted geophysical anomalies along the cliff edge. The structures in both trenches were buried beneath up to 1m of windblown sand. The first trench, with dimensions of 20m x 2m, confirmed the presence of a roundhouse that had been detected on the geophysical survey. This had an external diameter of 13.2m with 2.4m thick walls with orthostatic facing. The second trench (30m x 4m) targeted another possible roundhouse anomaly. The excavation revealed a wide stony bank forming a terrace but no other structures were definitely identified. Sondages revealed that the area was covered in a featureless buried soil that post-dated any structural remains or cut features but was sealed by the wind-blown sand.

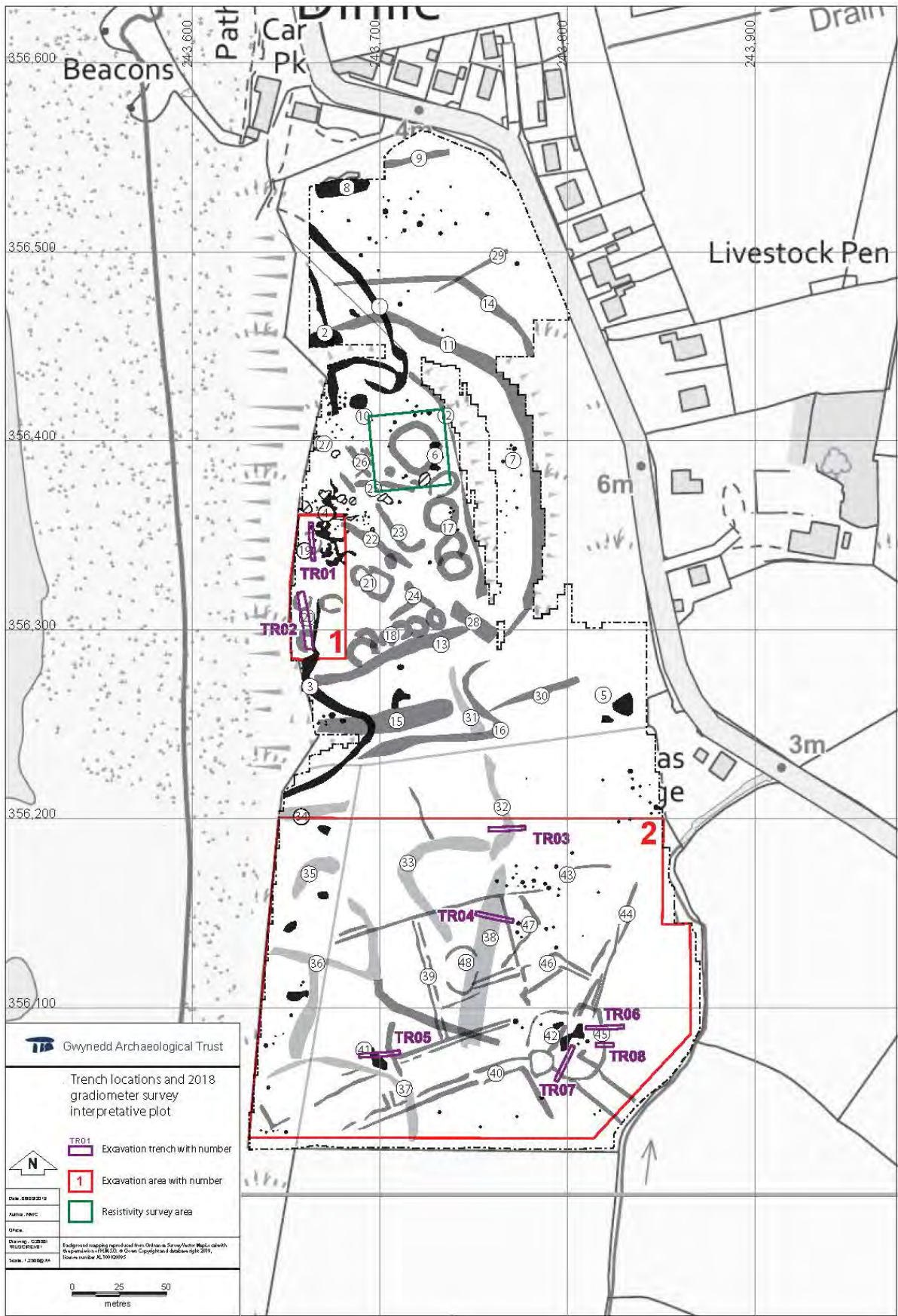


Fig. 3 2019 trench locations and 2018 geophysical survey interpretation

3.1 Geophysical survey

Four geophysical surveys have been carried out at Dinas Dinlle. The two gradiometer surveys by GAT in 2005 and 2018 were somewhat complementary (Smith 2005 and Hopewell 2018). The 2005 survey used a Geoscan FM36 fluxgate gradiometer at a resolution of 1.0m x 0.5m. The 2018 survey used a Bartington Grad601 at a resolution of 0.5m x 0.125m. The latter produced a more detailed survey with slightly better depth penetration. A steel wire fence that had run across the interior of the fort in 2005 had been moved to the edge of the cliff by 2018 and a wire and board trackway had been installed across the ramparts. The works in the fort left a noticeable amount of ferrous debris, possibly fencing staples and the like, and there has probably been an increase in litter since the fort was opened up to the public. Some details were therefore masked by strong ferrous responses in the 2018 survey but were visible in the 2005 data.

A resistivity survey was carried out over the mound (possible barrow or Pharos) as part of the 2019 project but no useful results were obtained.

A ground penetrating radar survey (GPR) was commissioned by the CHERISH project after the excavation in 2019 (Uldyrzsz-Kraweć, and Wazjer, 2020). This produced very clear results, particularly on the west side of the fort, in a series of timeslices. Timeslices are effectively images of the archaeology at different depths.

Figs 4 to 6 show the 2018 gradiometer survey and the GPR timeslice at 0.6m along with a combined interpretation plot of the area around the excavation trenches. Most, but not all, features are visible on both surveys. There are three very clear stone-walled roundhouses (1-3). Roundhouse 2 also has a conjoining rectangular structure. A further roundhouse (4) is fairly clear on several of the GPR timeslices but is not visible on the gradiometer survey. Conversely, roundhouse 5 is visible on the gradiometer survey but not the GPR. A further roundhouse had been suggested in the southern end of trench 2 in GAT's 2018 survey. The combination of the two surveys and the evaluation results suggest that there is an area of probable thermoremanent magnetic enhancement (6) and a curvilinear bank that is faintly visible on the GPR results (7) but little evidence for a roundhouse. Activity along the inside of the rampart was identified in both surveys (8 and 9). The interior contains some substantial stone features, probably roads and yards e.g. Fig. 6 feature 10.

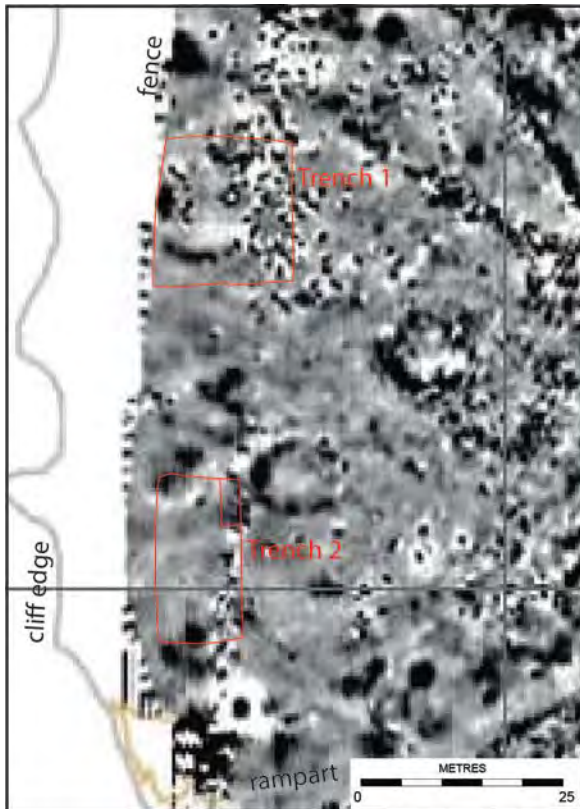


Fig. 4 Gradiometer survey 2018

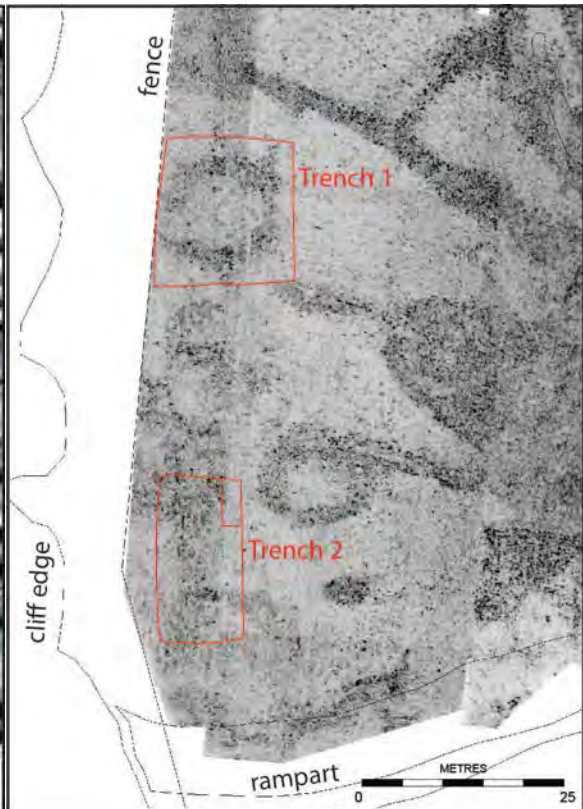


Fig. 5 GPR survey 2019

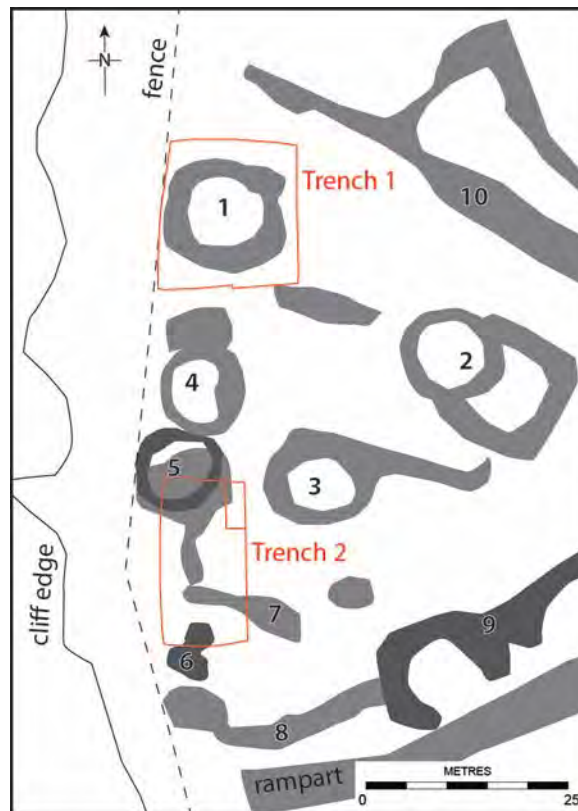


Fig. 6 Combined interpretation

4. EXCAVATION IN 2021

4.1 GENERAL METHODOLOGY

The fieldwork took place over 5 weeks between Monday 16th August and Thursday 16th September 2021. The excavation was carried out by a team of local volunteers, GAT staff, Bangor University students and members of the CHERISH team. About 20 volunteers/students were participating at any one time; numbers were limited as a result of Covid restrictions.

The excavations in trench 1 were directed by Neil McGuinness and in trench 2 by the site director David Hopewell. Additional training and supervision was provided by GAT staff and University postgraduate researchers. Trench 2 was run as a training excavation for the students many of whom had little or no experience of practical archaeological excavation.

The location and extents of Trench 1 were selected to investigate the entirety of the stone-built roundhouse identified in Evaluation Trench 1 during the 2019 excavation. Trench 2, with dimensions of 20m x 10m, aimed to further investigate the partially excavated features examined in Evaluation Trench 2 during the 2019 excavation (Fig. 1).

The OSGB grid coordinates of the trench 1 corners were calculated using MapInfo GIS based on the full extent of Anomaly 1 identified during the 2017 and 2019 geophysical surveys (Figs 3 to 6). The stakeout of the trench corner points, and all subsequent survey work, was carried out using a Trimble R8s high precision GNSS system (+/- 8 mm horizontal, +/- 15mm vertical precision). The edge of trench was slightly truncated on the western side due to the presence of NNE-SSW aligned post and wire stock fencing running along top of the cliff. The final size of the trench was 17m long north-south, and between 15m (north side) and 17m (south side) wide.

The turf and topsoil were carefully machined away under archaeological supervision using a 13.5 tonne tracked excavator fitted with a toothless bucket. They were stockpiled in bunds on the northern side of the excavation areas. The windblown sand deposits revealed following topsoil removal were also machine excavated. In trench 1 they were carefully removed until the southern part of the stone roundhouse wall, wall tumble deposits, and darker sand horizons, both in the interior, and exterior of the roundhouse, were identified and exposed. For convenience this level is referred to in the stratigraphic description below as "the machined ground surface". About 1.0m of sand was mechanically excavated from trench 2. The 2019 evaluation had identified a context of uniform and featureless buried soil beneath the sand. This sealed the Romano-British features and had been partially excavated by hand. It was agreed in advance with Cadw (as part of the scheduled monument consent) that the upper part of this would be carefully removed using the excavator. The windblown sand deposits were stored in separate stockpiles.

The volunteers started work on site on 18th August, initially in the south half of trench 1. It took several more days to finish excavating the overburden from the two trenches. The areas where the machine excavation was still taking place were fenced off.

The machine excavation left some sand deposits particularly around the roundhouse walls. Both trenches were hand-cleaned using brushes and trowels revealing tumbled stone, masonry and spreads of dark sandy soil that was interpreted as the ground surface prior to the sand inundation.

After the removal of the sand both trenches were recorded photogrammetrically using a pole-mounted DSLR camera. The excavation strategies for the two trenches are described in the individual trench entries below.

After excavation the base of the trenches, including the roundhouses and other features were covered with a geotextile membrane. The trenches were backfilled and the turf reinstated by machine under the supervision of an archaeologist on 17th September 2021.

4. 2 PHOTOGRAMMETRY

The time available for excavation and recording was limited. There was therefore not time to draw by hand complex stone features and spreads at the various stages of excavation. Hand drawn plans and sections were therefore supplemented by photogrammetric recording. This had the added advantage of producing detailed 3D models of the excavations as they progressed.

A total of 15 photogrammetric surveys were conducted during the course of the excavations in order to generate a record of the progress of the works and to record archaeological features, deposits and areas: 9 in Trench 1 and 6 in Trench 2. The photogrammetric surveys were conducted using one of three methods using either:

- 1) A handheld Nikon D5600 DSLR camera (resolution 6000x4035px; image format high-quality JPG; camera at ground level) (4 roundhouse internal quadrant section surveys)
- 2) a pole-mounted and remotely controlled Nikon D5600 DSLR camera (resolution 6000x4035px; image format high-quality JPG; camera height approximately 4m Above Ground Level (AGL)) (11 surveys)
- 3) a Phantom 4 Pro V2.0 UAS fitted with an FC6310s digital camera (resolution 5472x3648px; image format high-quality JPG; camera height 2-5m AGL) (final survey of Trench 1 conducted Thursday 16th September).

For the pole-mounted and UAV surveys, a series of overlapping oblique aerial photographs were taken (min 60% overlap) by walking or flying regular traverses in a grid pattern in or over the survey areas to ensure that adequate photographic coverage was obtained. Additional photographs, for example, shots from a lower altitude perpendicular to the interior and exterior wall faces of roundhouse (1024) were taken when appropriate. For the handheld surveys, a series of overlapping photographs (min 60% horizontal and vertical overlap) were taken with the camera at ground level and set perpendicular to the plane of the quadrant section faces.

Ground Control Points (GCPs) for each survey were established prior to commencement and their OSGB EPSG27700 grid coordinates were recorded using a Trimble R8s high precision GNSS system to enable the photogrammetric models to be accurately scaled and geo-referenced.

The photographic datasets and GCP survey data were processed off-site using Agisoft Metashape Professional V.1.5.3 in order to generate geo-referenced 3-D models. The models enabled the creation of Digital Elevation Models (DEMs) and geo-referenced photomosaic orthographic views for each survey area at a scale of 1mm/px. An orthographic view is a computer generated form of parallel projection, in which all the projection lines are at right angles to the projection plane. In effect this is an image in plan or elevation view with no parallax error i.e. the same projection as a

drawn plan or elevation/section. These views are ideal for the production of scaled drawings particularly of complex stone features.

The outputs from the surveys selected for illustration were then imported into QGIS 3.18.2 and combined with the Trimble R8s site survey data. Where appropriate, DEMs were processed to generate slope, aspect and relief maps in QGIS. The various outputs were then compiled into drawing layouts for each individual survey. The drawing layouts were then opened in Adobe Illustrator CS6 and the areas and features were traced to create accurate georeferenced scaled vector drawings for publication and record.

4.3 TRENCH 1

4.3.1 Trench 1 excavation strategy

Excavation quadrants were strung out across the interior and exterior of the roundhouse on NNW-SSE / WSW-ENE axes (Fig. 7) The quadrants, which provided sections across the entire roundhouse, were orientated to facilitate the investigation of the two parts of the roundhouse wall that appeared to potentially contain an entrance: one on the west side where the wall stones appeared to end abruptly, and one on the east which appeared to have large orthostatic stones projecting through the tumble that were suggestive of a potential opening in the wall here. The NNW-SSE orientated section line was offset slightly west of the centre of the roundhouse to avoid ground potentially disturbed during the 2019 excavations. The internal NW excavation quadrant measured 3.6m WSW-ENE and 4.2m NNW-SSE. The internal SE excavation quadrant was slightly larger and measured 5m WSW-ENE and 4.2m NNW-SSE.

On the outside of the roundhouse, smaller excavation areas were strung out against the quadrant sections in order to obtain full wall profiles and to perform a limited investigation of the building's exterior. A subrectangular area measuring up to 2.6m long and 2.3m wide was strung out against the planned WSW facing section of the external NW quadrant between the roundhouse walls and the edges of the trench. In the external SE quadrant, a subrectangular area to 4.4m long and 3.8m wide was strung out against the planned ENE facing quadrant section. A small rectangular sondage measuring 1.6x1.1m was also set out against the eastern end of the SSE facing section line of the SE quadrant, just outside of the possible entrance.

The tumbled stones that lay against the inner and outer facing stones of the walls of the roundhouse were then removed down to the level of the interior and exterior machined ground surface in order to more clearly define the roundhouse walls. Where appropriate, 1m wide baulks of tumbled stone deposits were left *in situ* against the quadrant edges to preserve the tumble in section.

The hand excavation of the NW and SE quadrants began on 27th August. In the interior of the roundhouse, the upper deposits were removed across the entirety of both quadrants in 10cm spits until a clear transition to a different archaeological deposit was identified. Excavation of individual stratigraphic units then continued in sequence down to the level of the natural glacial substrate. Most of the internal features identified were excavated and recorded in half section, however, due to time constraints, it was not possible to excavate all of the potential archaeological features and deposits encountered within the roundhouse.

In the external NW quadrant, the machined ground surface was hand cleaned and the stratigraphic units dug sequentially down to the underlying natural ground surface. In the SE external quadrant,

the machined ground surface was cleaned but the deposits and features revealed were only subjected to limited excavation due to time constraints. A deeper 1m wide sondage was however cut against the ENE facing quadrant section in order to further investigate the sequence of deposits there.

The excavation finished on 16th September and a photogrammetric record was made of the trench using a camera mounted Unmanned Aircraft System (UAS).

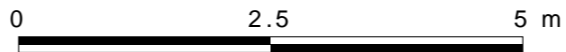
243650

356350

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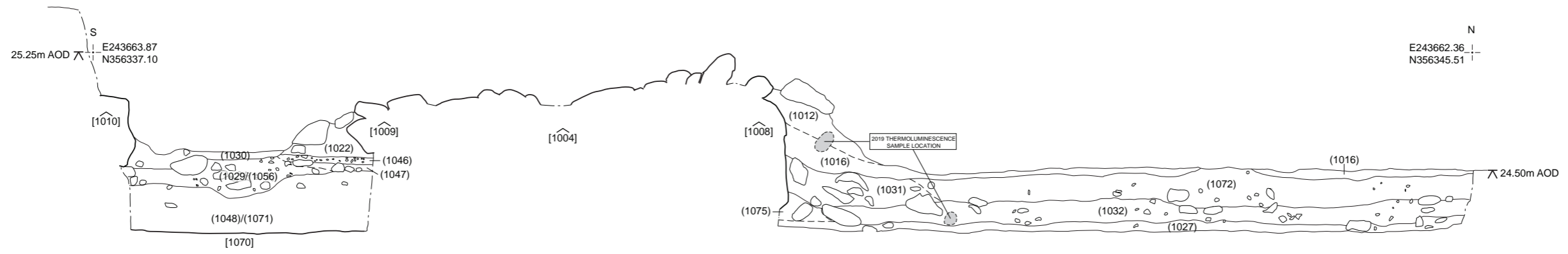


Fig. 8 ENE facing section across roundhouse (1024), SE quadrant

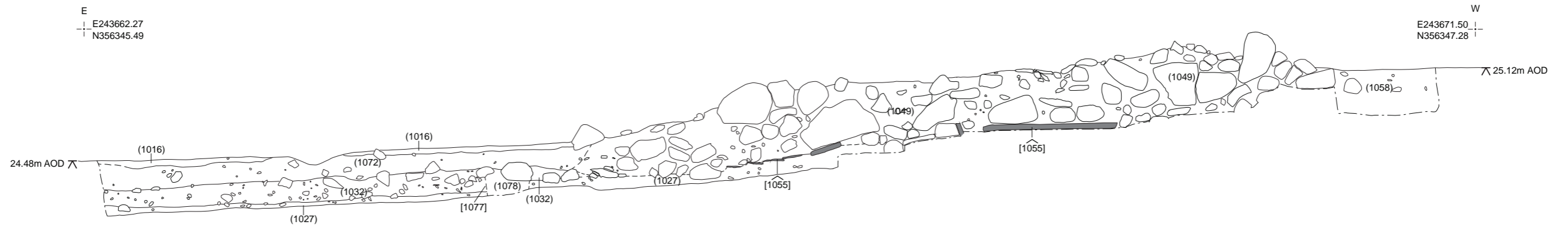


Fig. 9 SSE facing section across roundhouse (1024), SE quadrant

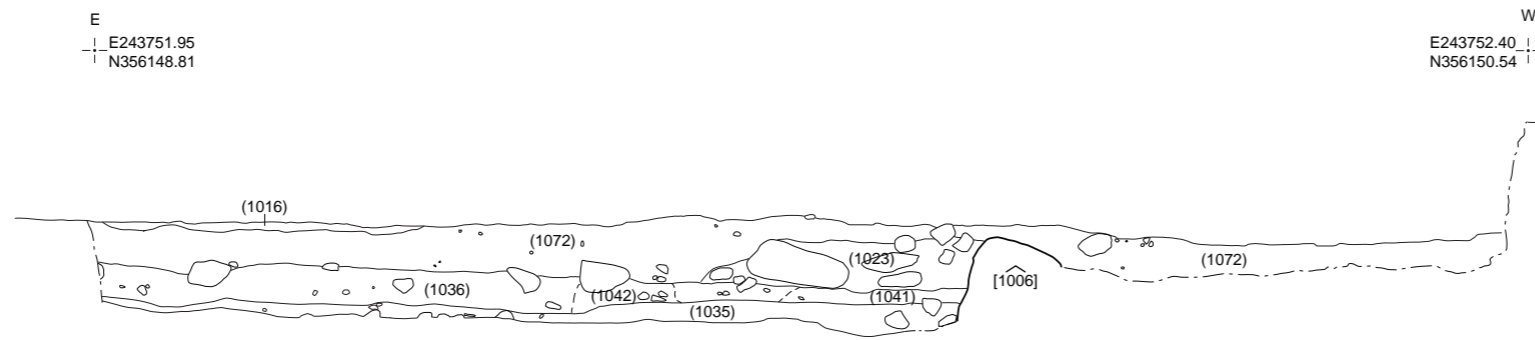


Fig. 10 NNW facing section across roundhouse (1024), NW quadrant

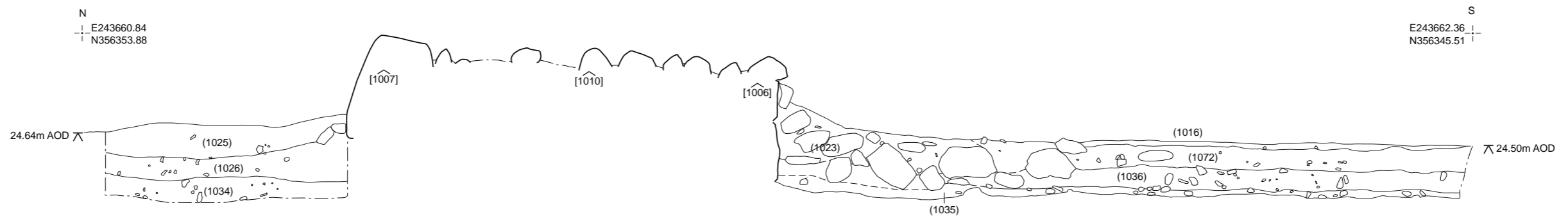


Fig. 11 WSW facing section across roundhouse (1024), NW quadrant



4.3. 2 Results

4.3.2.1 Overlying deposits and glacial natural substrate.

The upper deposit in the trench consisted of a light yellowish-brown silty sand topsoil horizon (1001), with an average depth of 0.19m. Below the topsoil, sealing the archaeological horizons below were layers of windblown sand that extended across the entire excavation area. The upper deposit, a clean light orangey yellow sand (1002), was up to 0.58m deep on the exterior of the roundhouse. A very slightly darker deposit of windblown sand recorded as (1003) / (1012) and up to 0.20 m deep was identified below this, suggesting that the cleaner sand deposits overlying the roundhouse may not represent a single inundation event. The windblown sand layers reached a maximum depth of 0.81m on the exterior of the roundhouse at the western side of the excavation area, but were noticeably shallower, up to 0.66m deep on the eastern side. Finds recovered from the windblown sand during the cleaning of the upper surface of the roundhouse walls included a flint flake or blade SF1005, a sherd of black burnished ware with a ferrous metal rivet in it SF1006, a small Cu alloy coin SF1008, and a sherd of probable Roman-British coarseware SF1013. A flattened Cu alloy thimble SF1007, which appeared to be machine-made and of post-medieval date, was identified pressed into the machined ground surface during the course of the excavations and assigned to context (1002).

The natural glacial substrate was encountered in the internal SE and NW, and external NW, excavation quadrants (Fig 7). In the internal quadrants it was recorded as a hard mid-orangey brown clayey sand with moderate subangular and subrounded pebbles, sometimes concentrated in patches, and occasional cobbles up to 10cm long, sometimes concentrated in patches (1061)/(1069). In the external NW quadrant, it was recorded as a firm orangey-brown clayey sandy silt with frequent small gravel and occasional larger stone inclusions (1034).

4.3.2.2 Possible pre-roundhouse features

A 1.51m long portion of a north-south aligned straight linear ditch [1070] was identified in the base of the sondage in the exterior SE excavation quadrant (Figs 7, 8 and 12). The ditch was 0.37m deep with gradually sloping sides that broke gradually to a flattish base. It was filled with (1048)/(1071), a brownish-grey sand that was noticeably waterlogged towards the base. No finds were recovered from the ditch fill. The feature appeared to run underneath the possible eavesdrip feature (1046)/(1047) and external facing [1009] of the southern roundhouse wall and the length of straight linear wall [1010] on the south edge of the excavation area, suggesting it predates them all. The ditch appeared to be cut into a firm yellowish-grey sand deposit (1074), however, it was not possible to resolve whether this was a lens of sand within the surrounding glacial natural (1061)/(1068) or another fill of the ditch itself. No traces of ditch [1070] or sand deposit (1074) were identified in the internal SE quadrant of the roundhouse. A 20 litre bulk sample of fill (1048)/(1071), S1110, was recovered for post-excavation analysis.



Fig. 12 Trench 1, ditch [1070]

4.3.2.3 Roundhouse [1024] construction and initial occupation

Walls and Entrance

Once the windblown sand and the tumble deposits were removed from around the wall facing down to the level of the machined ground surface, it became clear that roundhouse [1024] was circular in plan, with an external diameter of approximately 13.6m, and an internal diameter of 8.6m. Its substantial walls, up to 2.69m thick on its southern side, were of drystone construction and built from large subrounded boulders which formed an internal [1006]/[1008] and external [1007]/[1009] wall facing, with generally smaller rounded, subrounded, and subangular boulders and cobbles [1004]/[1011] used to construct the wall core (Figs 7 and 13-20). The stones on the internal wall face were up to 0.82m long, 0.42m wide and 0.25m thick and the wall facing survived up to a height of 1.02m with up to three courses visible in the excavated SE quadrant. Smaller subrounded and rounded cobbles had often been inserted as packing stones into gaps in the base of the wall between and underneath the lower course of inner facing stones. The external wall facing was constructed of generally smaller boulders than the inner face with only one or two courses evident. The external wall facing appears to have been constructed in a series of straight segments, whilst the internal wall facing is more or less circular. Additionally, the walls were noted to flare out on the east side of the building at the location of the entrance, the south wall of which [1084] was 2.96m thick.



Fig. 13 Trench 1, roundhouse [1024], aerial view



Fig. 14 Trench 1, roundhouse [1024], inner face SE quadrant



Fig. 15 Trench 1, roundhouse [1024, inner face, SW quadrant



Fig. 16 Trench 1, roundhouse [1024], inner face, NW quadrant



Fig. 17 Trench 1, roundhouse [1024], inner face and tumble, NE quadrant



Fig. 18 Trench 1, roundhouse [1024] outer face, NE quadrant



Fig. 19 Trench 1, roundhouse [1024] outer face, SE quadrant



Fig. 20 Trench 1, roundhouse [1024] outer face, SW quadrant

Initially, it was unclear whether the entrance lay on the west side where the wall facing stones [1006]/[1008] and [1007]/[1009] appeared to end abruptly (Fig. 21), or one on the east where large orthostatic stones projected through tumble (1049) suggesting a potential opening in the wall (Fig. 22). The wall on the west side of the roundhouse appears to have been either heavily robbed or suffered more significant collapse than elsewhere as excavation demonstrated that the inner wall

face [1006] clearly continued under the NNW facing baulk of the NW quadrant (Fig. 10). The partial removal of tumble (1049) against the SSE facing section line in the SE quadrant exposed the south side of the entrance, demonstrating that it lay on the east side of the structure.

The south entrance wall [1084] was 2.96m long and faced at its centre and east (external) end with substantial boulders that had been set on their sides (Figs 7 and 23-24). The central stone was 0.70m long, 0.64m wide and 0.51 m thick, the stone that formed the entrance's corner with the external wall facing [1009] was 0.88m long, 0.58m wide and 0.60m thick. Other substantial boulders visibly protruding through tumble (1049) on the unexcavated north side of the entrance suggest that the entrance was originally approximately 3m wide externally, and possibly tapered towards the inside of the building where it appears to be slightly narrower with a width of approximately 2.5m.

The wall profiles visible in both the WSW and ENE facing quadrant sections suggest that though the upper wall surfaces are generally level, the external wall facing sits higher than the internal face, 0.35m higher on the south side of the roundhouse and 0.27m on the north (Figs 11 and 8). This is to some extent a result of the roundhouse floor being sunken below the level of the surrounding terrain. It could be argued that the differences in the level and construction of the inner and outer faces suggest phasing in the wall construction with the wall being made thicker at some point during the occupation of the roundhouse. There is currently no evidence to support this in the construction of the core at this level but investigation in any further excavation is recommended.

The earlier stratigraphic relationships of the roundhouse walls proved difficult to establish with confidence. Given the substantial nature of the facing stones, it was not possible to conclusively demonstrate any relationships without excavating a section through the masonry of the wall. There was no compelling evidence for a wall cut within any of the interior or exterior excavation quadrants. The internal wall facing stones [1006]/[1008] don't appear to have been set straight onto the natural glacial deposits (1061)/(1069) which formed the limit of excavation in the interior of the roundhouse; the deposit currently interpreted as a primary occupation layer (1027)/(1035) may, possibly, continue underneath the overhanging basal edges of the internal wall facing stones. This could support the possibility of phased construction of the walls (Figs 11 and 8). In the external SE quadrant, the possible eavesdrip feature (1046)/(1047) (see below) also appeared to continue underneath the base of the facing stones [1009] (Fig 8), while in the external NW Quadrant, the external facing stones [1007] appeared to sit on relict subsoil layer (1026) (Fig. 11)

Removal of the wall stones in section as part of any future archaeological works at the site may potentially provide further information and clarity regarding the stratigraphic sequence of wall construction any construction phases present.



Fig. 21 Trench 1, roundhouse [1024] possible entrance on west side before clearance



Fig. 22 Trench 1, roundhouse [1024] entrance on east side before clearance



Fig. 23 Trench 1, roundhouse [1024], entrance showing south entrance wall [1084] and from roundhouse interior



Fig. 24 Trench 1, roundhouse [1024], entrance showing slate floor [1055]

Floor in entrance

An *in situ* floor level [1055], provisionally assigned to his initial construction and occupation phase, was partially revealed within the excavated part of the entrance to the building (Figs.7, 9, 23 and 24). Though heavily disturbed by the overlying tumble (1049), the floor was identifiable as a deposit of large subrectangular horizontally laid flat slate slabs. A portion, approximately 2m long and 1.2m wide, was exposed in plan in the central and western part of the entrance. It lay between the north facing entrance wall, which it abutted, and the SSE facing baulk section, which it continued beyond. It appeared to slope gently downwards towards the interior of the roundhouse. The largest fully visible slab was 73cm long, 30cm wide and 5cm thick. Thinner, less substantial horizontally set slate fragments 10-20cm long and 2-3cm thick were also visible in the SSE facing baulk section further to the west. Unfortunately, any further *in situ* remnants that may have survived here appear to have been removed along with the tumbled stone during excavation. At the western end at least, the occupation layer (1027) appeared to continue underneath the thinner slates of [1055] which appear to have been laid directly onto it. Further work is however required to conclusively demonstrate the floor's stratigraphic relationships (see also Sec 4.3.2.5 entrance tumble deposit (1049) below).

Primary occupation layer

In the interior of the roundhouse, a primary occupation layer (1027)/(1035) was identified above the natural glacial substrate (1061)/(1069), (Figs 8-11). It consisted of a layer of light brownish-grey sand with occasional flecks and fragments of charcoal, occasional to moderate subrounded and subangular pebbles and small cobbles (2-15cm long). The deposit extended across the entirety of the excavated internal quadrants and was between 0.07 and 0.13m deep. The primary occupation layer was the most productive deposit in Trench 1 in terms of finds recovered. A total of 28 finds were recorded from (1027)/(1035): Samian ware sherds SF1031 and SF1071; a Black Burnished ware rim sherd SF1053; a large mortarium sherd with a ferrous metal rivet *in situ* SF1044 (Fig.26); flint flakes SF1043, SF1048, SF1056, SF1066 and SF1078; flint fragments SF1045, SF1050 and SF1081; a flint core SF1055; bone and burnt bone SF1074 and SF1083; and a number of small ferrous metal fragments and small objects SF1051, SF1057, SF1070 and SF1084. The upper stone of a circular rotary quern (SF1038) had also been placed flat on the surface of the deposit (Fig. 25). The quern stone appeared to be intact when it was discovered, but was in fact cracked and was found to be into two parts when it was recovered. A 20 litre bulk sample of occupation layer (1027) S1113 was recovered for post-excavation analysis.



Fig. 25 Trench 1, roundhouse [1024], quern stone, lying on primary occupation layer (1035)



Fig. 26 Mortarium sherd with a ferrous metal rivet SF1044



Fig. 27 Trench 1, roundhouse [1024], NW quadrant after removal of floor (1035)



Fig. 28 Trench 1, roundhouse [1024], NW quadrant [1063], [1064] and [1065] half-sectioned



Fig. 29 Trench 1, roundhouse [1024], SE quadrant after removal of floor (1027)



Fig. 30 Trench 1, roundhouse [1024], SE quadrant [1062] half-sectioned

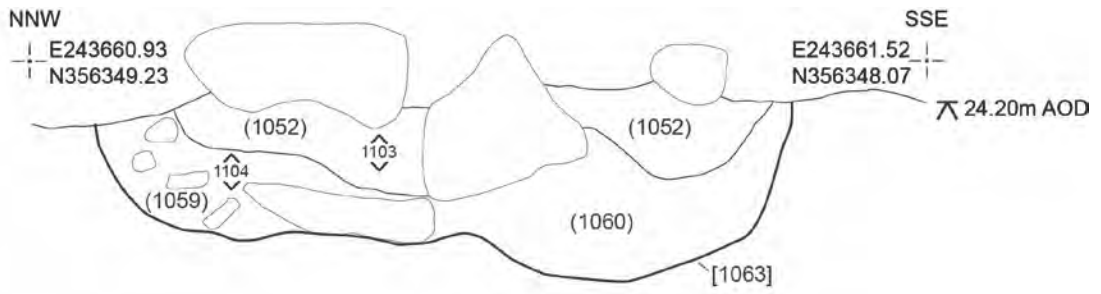


Fig. 31 West-southwest facing section across possible posthole [1063]

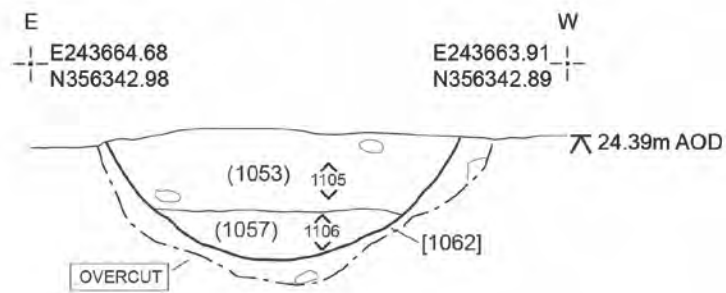


Fig. 32 North facing section across possible posthole [1062]

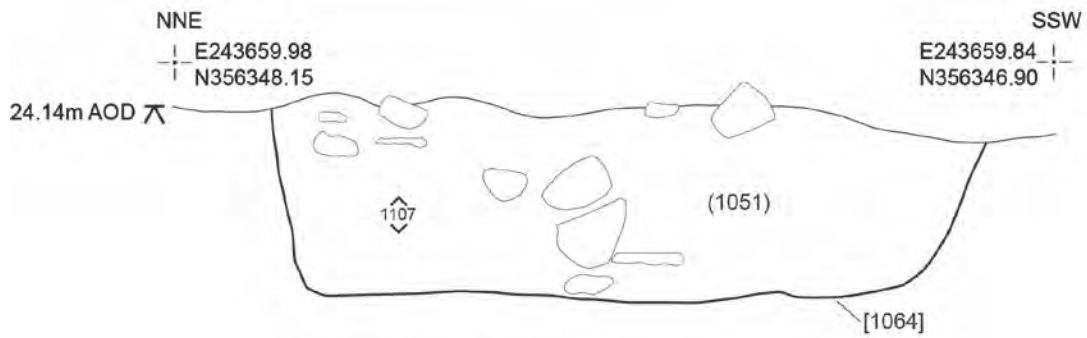


Fig. 33 West-northwest facing section across pit [1064]



Cut features

A number of cut features were identified within the occupation layer (1027)/(1035), however, they could not be defined clearly in plan until it was removed. In the NW internal quadrant, a shallow possible posthole [1063] and a pit [1064] that were part of this phase were excavated in half section (Figs. 7, 27 and 28). In the SE internal quadrant, two possible postholes [1062] and [1076], both close to the inner face of roundhouse wall [1008], a possible pit [1080] close to the centre of the roundhouse, and two possible stakeholes [1082] and [1083], were recorded, however, only posthole [1062] was excavated (Fig. 7, 29 and 30). The internal features did not form a coherent pattern, and the two excavated possible postholes [1063] and [1062] did not appear substantial enough to hold a post that would have supported a roof structure.

Possible posthole [1063] was located close to the inner face of the roundhouse wall [1006] in the north corner of the NW quadrant (Fig. 7). It was subcircular in plan, 1.02m long and 1.01m wide with steep, slightly concave sides that broke to an irregular base 0.28m deep. It contained three fills (Fig. 31). The upper fill (1052) consisted of an 0.14m deep friable dark brown sand with moderate flecks and fragments of charcoal and occasional bone fragments. Upper fill (1052) also contained a number of large subrounded and subangular cobbles, possibly disturbed post packing material. On the northern side of the feature, fill (1059), a 0.16m deep compacted firm greyish brown stony clayey sand deposit filled the base of the cut. On the southern side of the cut, (1060), a 0.26m deep layer of firm greyish brown stony sandy clay lay below (1052). The two lower fills were separated by a flattish subangular cobble 28cm long and 6cm thick and their stratigraphic relationship was not determined. A small faience bead SF1093 was recovered from the upper fill (1052) of posthole [1063]. Two 10 litre bulk samples were recovered from two of the fills for post-excitation analysis, one S1103 from (1052) and one S1104 from (1059).



Fig. 34 Faience bead SF1093

A subcircular pit [1064] was located close to the roundhouse wall face [1006] on the NW edge of the internal NW quadrant (Fig. 7). It was 1.01m in diameter and 0.25m deep with steeply sloping sides that broke sharply to a flattish base. It contained a single fill, (1051), a firm greyish brown slightly

clayey sand (Fig 33). No finds were recovered from the fill and the pit is of unknown function. A 20 litre bulk sample of fill (1051), S1107, was recovered for post-excavation analysis.

In the SE internal excavation quadrant, a shallow possible posthole [1062] was identified in the SW corner, 1.6m away from the inner wall face [1008] (Fig. 7). It was subcircular in plan, 0.60m long and 0.57m wide, with steep sides that broke gradually to a concave base. It contained two fills (Fig. 32). Upper fill (1053) consisted of a 0.13m deep soft dark-greyish brown clayey sand deposit with a moderate amount of subangular and subrounded pebble inclusions up to 5cm long. A small number of subrounded cobbles up to 20cm long, possibly disturbed post packing material, were also included. Lower fill (1057) was a 0.08m deep loose, charcoal rich, dark grey silt with occasional subrounded cobbles up to 15cm long pressed against the sides of the cut. A sherd of Black Burnished ware SF1096 was recovered from its upper fill (1053). A 20 litre bulk sample S1105 was recovered from (1053) for post-excavation analysis; a 10 litre bulk sample S1106 was taken from (1057).

Clay deposit at base of roundhouse wall in SE quad

Also in the SE internal quadrant, an irregularly shaped and discontinuous band of clay (1075) had been pressed into the base of roundhouse wall [1008] (Fig. 7, 8 and 35). The clay deposit ran concentric with the roundhouse wall, it was up to 0.40m wide and 0.15m deep against the wall, its upper surface sloped downwards towards the interior. Its colour varied from greyish-yellow to yellowish-brown with occasional reddened, apparently heated patches. It appeared to sit above the occupation deposit (1027) and may represent an attempt to seal the base of the wall to prevent water ingress on the upslope SE side of the building. Only a small portion of the deposit against the WNW facing baulk section was excavated and no finds were recovered from it .



Fig. 35 Trench 1, roundhouse [1024], band of clay (1075) at base of roundhouse wall

Possible eavesdrip feature in external SE quad

In the external SE quadrant, following the removal of tumble (1022), the excavation of the 1m wide sondage between the roundhouse wall [1009] and the straight linear wall [1010] revealed a 0.52m wide compacted shallow band of small pebbles (1046) that ran concentrically with the roundhouse external wall face [1009] (Fig. 7, 8 and 36). Once exposed the deposit could be identified running parallel with the roundhouse wall for a distance of 5.2m across the whole extent of the external SE excavation quadrant.

In the sondage, a tightly packed layer of larger subangular and subrounded cobbles in a sandy silt matrix (1047) was identified below (1046) (Fig. 37). No traces of a cut was identified, and it was not possible to establish with any certainty whether the deposits abutted external wall face [1009] or continued underneath it, however, both (1046) and (1047) are currently provisionally interpreted as an eavesdrip feature, possibly an attempt to control water ingress into the upslope SE side of the building (see also sec 2.3.5 clay deposit (1075) above). A ferrous metal object SF1085, possibly a nail shaft, was incorporated into deposit (1047).



Fig. 36 Trench 1, roundhouse [1024], eavesdrip feature band of small pebbles (1046)



Fig. 37 Trench 1, roundhouse [1024], eavesdrip feature, cobbles beneath small pebbles (1047)



Fig.38 Trench 1, roundhouse [1024], raised patches of burnt clay and gravel (1042 left) and compacted clay and gravel (1041right) against the NNW facing baulk in the NW quad

4.3.2.4 Roundhouse [1024] Possible secondary occupation phase

Possible secondary occupation layer.

A 0.18m deep deposit of firm brownish-grey clayey sand (1032)/(1036) with moderate flecks and fragments of charcoal and occasional to moderate subangular and subrounded pebbles and cobbles, 2-25cm long, lay above primary occupation deposit (1027)/(1035) in the excavated interior quadrants of the roundhouse. Numerous examples of larger cobbles appear to be embedded into the deposit close to wall facing [1006] in the NW quadrant, but it appears that these derive from the overlying tumble deposit (1023) rather than the possible secondary occupation layer (1036) (Figs 8-11). It contained relatively few finds: a Cu alloy coin SF1098, a possible whetstone SF1099 and a flint flake SF1059. Deposit (1032)/(1036) may possibly represent a floor level but this interpretation is mainly based on its associated archaeological features (see Sec 2.4.2 below). A 20 litre bulk sample of (1032) S1111 in the SE quadrant and a 20 litre bulk sample of (1036) S1115 in the NW quadrant were recovered for post-excavation analysis.

Associated features

Patches of burnt clay and gravel (1042) and compacted clay and gravel (1041) were identified within possible secondary occupation layer (1036) against the NNW facing baulk in the NW quadrant (Fig. 7, 10 and 38).

Deposit (1042) consisted of a dense greyish-yellow clay with heat affected orange and brown patches. It contained frequent coarse gravel inclusions and moderate amounts of charcoal flecks and fragments and occasional small fragments of burnt bone. The deposit extended into the unexcavated area to the south beyond the NNW facing baulk section and its visible part was 0.40m wide, 0.44m long and up to 0.13m deep. The flat top surface of the deposit was level with the top of (1036) and it appears to represent an area of burning, possibly the site of a hearth, within the possible later occupation layer (1036). No finds were recovered from the deposit. A 20 litre bulk sample of (1042) S1101 was recovered for post-excavation analysis.

Deposit (1041) lay just to the west of (1042), abutting the inner wall face [1006] of the roundhouse. It consisted of a firm greyish-yellow clay with moderate coarse gravel inclusions and occasional subangular and subrounded pebbles 2-7cm long. It also extended into the unexcavated area to the south beyond the NNW facing baulk section and its visible part was 0.75m long, 0.50m wide and 0.07m deep. The flattish upper surface of the deposit was level with the top of (1036) and (1042). Two currently unidentifiable ferrous metal objects SF1068 and SF1082, one of which, SF1068, was fused to a fragment of slate, were pressed into the upper surface of the deposit. It appears to represent a surviving remnant of a clay floor surface constructed against the western wall of the roundhouse. Though clay deposits (1075) were identified against the wall of the roundhouse in the SE quadrant, they appear to be part of a different phase. Both deposits overly primary occupation deposit (1027)/(1035) however (1075) was sealed by possible secondary occupation deposit (1032) in the SE whilst (1041) appears to be contemporary with (1036) in the NW. A 20 litre bulk sample of (1041) S1102 was recovered for post-excavation analysis.

A subcircular pit [1065] which was cut through (1036) was identified just to the north of (1041) and (1042) in the NW internal quadrant (Fig. 7 and 38). It was 1.08m long, 0.89m wide and 0.37m deep with steeply sloping, almost vertical sides that broke sharply to an irregular, flattish base. The pit had been truncated during the excavation of (1036), its upper fill (1050) presented as an unresolvable subcircular patch of small stones during the excavation of (1036) and the pit could not be defined clearly in plan until (1036) had been removed.

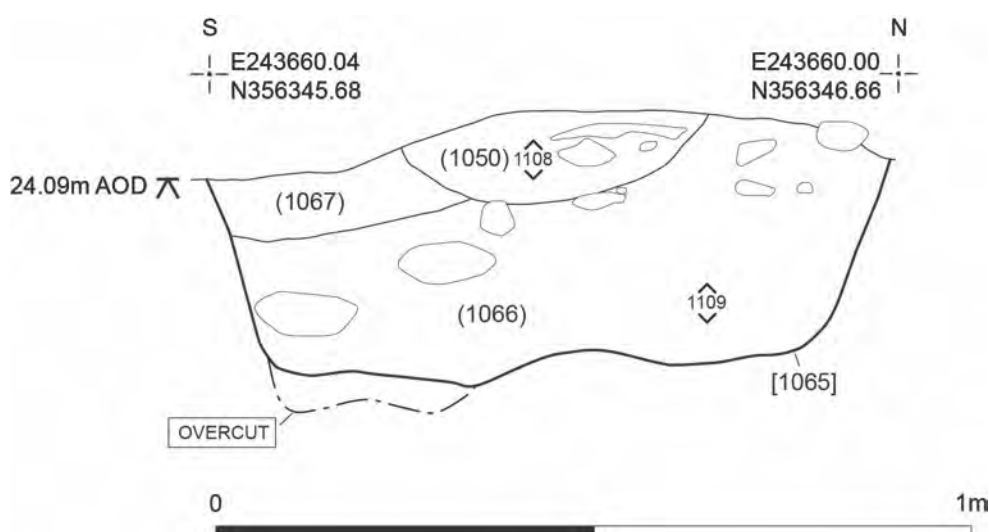


Fig. 39 East facing section across pit [1065]

Once excavated in half section, it was evident that the pit contained three fills. Upper fill (1050) consisted of a 0.13m deep friable dark greyish brown slightly silty sand. Below this lay on the SW side of the pit was (1067), a 0.09m deep mid to light orangey brown sand with occasional subrounded pebbles. The lower fill of the pit was a 0.32m deep deposit of firm greyish brown sandy clay with frequent subrounded and subangular pebbles 2-5cm long and occasional subrounded cobbles, 15-20cm long. No finds were recovered from any of the fills of pit [1065] and it is of unknown function. Two bulk samples were recovered from its fills for post-excavation analysis, 10 litres from (1050) S1108 and 10 litres from (1066) S1109.

A partially excavated pit that also appears to part of this phase of activity was identified in the SE quadrant (Fig. 7). Pit [1078] was not visible in plan until both occupation deposit (1027) and possible secondary occupation layer (1032) were removed, at which point it was possible to identify it in the SSE facing baulk section (Fig. 9). It was subcircular in plan and 0.28m in diameter and appeared to be cut through possible secondary occupation deposit (1032).

4.3.2.5 Roundhouse [1024] wall collapse

At some time after the accumulation of possible secondary occupation layer (1032)/(1036), the roundhouse walls collapsed as represented by tumbled stone deposits identified within the interior and exterior of the roundhouse. All of the tumble deposits consisted of cobbles and boulders in a dark brown sandy silt matrix. The nature of the soil matrix between the stones suggests a high organic component, it appears to have been colonised by plants and soil that had started to form over and within the tumbled stones deposit once it had stabilised.



Fig. 40 Trench 1, roundhouse [1024] north sidewall collapse/tumble (1021/1023)



Fig. 41 Trench 1, roundhouse [1024] south sidewall collapse/tumble (1021/1023)

Tumble deposits on the north side of the building

On the interior of the northern side of the roundhouse, tumbled stone deposits (1023) in the NW quadrant and (1021) in the NE quadrant were identified against almost the entire length of inner wall face [1006], the exception being those parts of the wall that lay within the footprint of the 2019 evaluation trench where the upper levels of tumble (1021) had been removed previously (Fig. 7; 11; 40). The tumble deposits consisted of a dark brown sandy silt with abundant subangular and subrounded cobbles and boulders, 6-40cm long, with occasional larger subangular boulders, presumably tumbled facing stones, up to 60cm long, and occasional small flecks and fragments of charcoal. They formed an up to 1.8m wide and 0.72m deep arcing band running concentric with inner roundhouse wall facing [1006]. It was not possible to establish the boundary between (1021) in the NE quadrant and the tumble (1049) in the entrance, the two deposits appeared to merge into each other.

Both (1023) and (1021) were initially hand excavated down to the level of later sand levels (1016)/(1072) in order to expose the roundhouse walls in plan before (1023) was fully excavated in the NW internal quadrant. The quantity and density of internal tumble deposit (1023) compared to its virtual absence on the outside of the NW quadrant, demonstrates that the inner facing [1006] and wall core (1010) appears to have collapsed inwards towards the south here. The quantity of collapsed stone here may explain the increased amount of larger stones that appear to have been

embedded in, but are not necessarily part of, possible secondary occupation layer (1036) close to wall facing [1006].

Seven finds were recovered from tumble deposit (1023) in the internal NW quadrant: sherds of apparently Roman-British period coarsewares SF1065 and SF1060, Slipware SF1024, Black Burnished ware SF1039 and Samian ware (SF1064), along with a possible whetstone SF1062 and an as yet unidentified copper alloy object SF1067. Nine finds were recovered from the partially excavated tumble deposit (1021) in the NE internal quadrant: sherds of Coarseware SF1014, SF1018 and SF1019, Black Burnished ware SF1015, SF1016, SF1017, S1020 and SF1021, and a Samian ware sherd SF1022.

Whilst there was very little tumbled stone in the NW external quadrant, an extensive spread was present in the external NE quadrant (Figs 7 and 40). A 5.8m long, 2.2m wide deposit of tumble (1020) was identified against the external wall facing [1007] to the north of the roundhouse entrance. No boundary between (1020) and the tumble (1049) in the entrance could be conclusively established. It was removed to a depth of 0.43m to expose and define the wall facing, but clearly extended further down below the limit of excavation here. It consisted of a dark brown sandy silt with abundant subangular and subrounded cobbles and boulders 6-38cm long and occasional small flecks and fragments of charcoal. Four fragments of probable Roman-British period pottery were recovered from the deposit: a sherd of coarseware SF1011, two sherds of Black Burnished ware SF1009 and SF1010, and a Samian ware sherd SF1012. Deposits (1020) and (1021) demonstrate that the wall in the NW quadrant collapsed on both sides, unlike the exclusively internal collapse evident in the NW quadrant.

Tumble deposits on the south side of the building

Much less tumble was encountered on the south side of the building. In the internal SW quadrant all of the material removed to define the walls was part of later sandy deposits (1003)/(1012) and (1016) (Fig. 41).

Tumble (1031) was however encountered in the excavated SE internal quadrant (Figs 8 and; 41). It was concentrated at the part of wall [1008] closest to the entrance of the building where it merged with entrance tumble deposit (1049), but it did occur intermittently along the 6.9m length of internal wall facing [1008] in less dense patches. The deposit was up to 0.25m deep and had a maximum width of 1.80m close to the entrance of the roundhouse. Again it consisted of a dark brown sandy silt with abundant subangular and subrounded cobbles and boulders, 5-40cm long, with occasional small flecks and fragments of charcoal. A general lack of larger possible former facing stones in the tumble on the southern side of the internal SE quadrant may suggest that wall facing [1008] survives to something approaching its original height here, though it is of course possible that wall stones have been removed and reused elsewhere. Only two finds were recovered from the tumble deposit (1031): a ferrous metal nail SF1041, and an as yet unidentified ferrous metal object SF1069.

A tumbled stone deposit (1022) was also identified against the external wall facing [1009] on the external south side of the building (Figs 7 and 8). Like elsewhere, it was comprised of a dark brown sandy silt with abundant subangular and subrounded cobbles and boulders, 5-57cm long, with occasional small flecks and fragments of charcoal. In general it was only removed to the level of the

machined ground surface in order to define the walls of the structure, though it was partially exposed and excavated at a slightly deeper level within the extents of the external SE excavation quadrant. On the SE side of the roundhouse it was generally a much less extensive deposit than elsewhere, often consisting of occasional stray boulders or sporadic patches of cobbles and boulders between 0.50 and 0.80m wide, though subtle differences in soil colour against the wall suggest that it may survive at a deeper level than the surface traces suggest. It had a maximum depth of 0.42m within the external SE excavation quadrant. On the external SW side it was an 8.40m long continuous spread along the outside of wall facing [1009] reflecting the less well-preserved nature of the wall here. In the SW it was up to 1.25m wide and had an excavated depth of 0.44m to the level of the machined ground surface. Two finds were recovered from the deposit, both of which were sherds of Roman-British period ceramics recovered from the SE side of the roundhouse: a Mortarium sherd SF1023 and a Black Burnished ware sherd SF1025.

Tumble deposits in the entrance to the building

The eastern entrance to the building was also filled with a deposit of tumbled stone (1049) (Fig. 7,9,40 and 22). The deposit was approximately 5.85m long and 3.00 m wide and merged with internal and external tumble deposits (1021) and (1020) to the north and (1031) and (1022) to the south. Due to time constraints, only the west and central parts of the deposit, a length of approximately 4.00m, was excavated against the SSE facing baulk section in the SE excavation quadrant (Figs 23 and 24). The excavated parts of the deposit proved to be up to 0.60m deep. It was comprised of a dark brown sandy silt with abundant subangular and subrounded cobbles and boulders, 5-60cm long, with occasional small flecks and fragments of charcoal. There were several large subangular boulders, the largest of which was 60cm long, 50cm wide and 30cm thick, comparable with the larger orthostatic facing stones from the south side of the entrance wall [1084] suggesting that the entrance may have been a substantial, perhaps even monumental, component of the roundhouse structure. The 8 finds from the deposit included two possible copper alloy coins SF1087 and SF 1092; an as yet unidentified ferrous metal object SF1095; and a small piece of bone SF1089. Probable Roman-British period ceramics were also recovered: two sherds of Black Burnished ware SF1088 and SF1091; and two coarseware sherds SF1090 and SF1094.

Entrance tumble deposit (1049) sat directly on the surface of the slate floor [1055] (Fig. 9). In the interior of the roundhouse, tumble deposits (1023) and (1031) appeared to sit on top of the possible secondary occupation layer (1032)/(1036) (Figs 8-10). No conclusive direct stratigraphic relationship between entrance tumble (1049) and possible secondary occupation layer (1032)/(1036) was demonstrated in the SSE facing baulk section. It is possible that the entrance floor [1055] was part of a possible secondary occupation phase in the roundhouse. It is also possible that floor [1055] is earlier, and was maintained/cleaned during the possible secondary occupation represented by (1032)/(1036). Alternatively, it is possible that the entrance was deliberately infilled with (1049) before the accumulation of (1032)/(1036), and may therefore represent a separate event to the collapse of the roundhouse walls represented by the tumble deposits elsewhere.

4.3.2.6 Roundhouse [1024] post abandonment deposits

A 0.27m deep layer of sand (1072), mid greyish brown in colour with brown mottles, extended across the interior of the roundhouse (Figs. 7 to 11, 40 and 41). It contained occasional subrounded, rounded and subangular pebbles and cobbles 2-21cm long. Where it was fully excavated in the SE and NW internal quadrants, it was seen to overlie the tumbled stone deposits (1023), (1031) and (1049) and the possible secondary occupation layer (1032)/(1036). Deposit (1072) most likely represents a stabilized windblown sand deposit that had begun to form a soil horizon within the interior of the abandoned structure. Its upper surface was initially thought to represent the machined ground surface in the interior of the roundhouse, however, traces of the overlying deposit (1016) were visible in the quadrant sections (see below). Two flint flakes SF1028 and SF1029 and a possible flint core SF1026 were recovered from (1072) during excavation. A 20 litre bulk sample of (1072) S1114 was recovered for post-excavation analysis.

Sporadic patches of mid-brown sand deposit (1016) were visible across the interior of the roundhouse above (1072). It was similar to (1072) but looser, slightly lighter in colour and generally lacking in stone inclusions. It survived to a maximum thickness of 0.18m where it had built up over the tumble (1031) against the inner facing stones [1008] of the wall in the SE quadrant, but began to get thinner at 0.07m as it sloped down towards the interior of the roundhouse (Fig. 8). The deposit appears to have been largely removed in the interior of the roundhouse during the initial machine excavation stage of the project along with the cleaner windblown sand deposits (1002) and (1003)/(1012) above it, but it survived in irregular patches up to 0.04m deep. It appears to represent another period of stability and pedogenesis following another accumulation of windblown sand in the ruined roundhouse. No finds were associated with deposit (1016).

4.3.2.7 Roundhouse [1024] external features and deposits

NW external excavation quadrant

The NW external excavation quadrant comprised a subrectangular area measuring up to 2.6m long and 2.3m wide between the outer facing stones of the roundhouse wall [1007] and the access pathway in the NW corner of Trench 1 (Fig. 7). No archaeological features were encountered in the quadrant. Instead, a series of soil horizons (1025), (1026) and (1034) were identified (Figs 11 and 42).

The upper layer (1025) consisted of 0.16m deep layer of firm dark brown sandy silt with occasional subrounded and subangular pebbles 1-5cm long and occasional small flecks of charcoal. The layer appeared to abut roundhouse wall facing [1007] and no traces of a cut for the wall were observed. A sherd of probable Roman-British period coarseware SF1027 was recovered from it during excavation. The layer has been interpreted as a relict topsoil buried below windblown sand deposit (1003) on the outside of roundhouse (1024), and is broadly contemporary with its use and abandonment.



Fig. 42 NW external quadrant post-excitation

A 0.30m deep layer of friable dark brown silty sand (1026) with moderate small subangular and subrounded pebbles 2-5cm long and occasional charcoal flecks was identified below (1025). The layer appeared to run under roundhouse wall facing [1007] but only limited investigation of its stratigraphic relationship with the wall could be carried out due to the danger of the substantial boulder which formed the wall facing in the WSW facing baulk section collapsing into the excavation area. No evidence for a wall cut was visible in the deposit. Two fragments of probable Roman-British ceramic material, a sherd of coarseware SF1030 and a sherd of Black Burnished ware SF1035 were recovered from (1026) during excavation. Layer (1026) appeared to be a relict subsoil horizon below the relict topsoil (1025) above.

Natural glacial deposit (1034) was encountered within the NW external excavation quadrant below (1026) at a depth of between 0.28 and 0.42m below the level of the machined ground surface.

Sondage on the eastern side of the entrance

A small rectangular sondage 1.6 long, 1.1m wide and 0.29m deep was dug against the SSE facing internal SE quadrant section to extend the section out eastwards beyond the entrance and into the exterior of the roundhouse (Fig. 7, and 13). The sondage showed that the entrance tumble deposit (1049) ended abruptly approximately 0.8m to the east of the south entrance wall [1084], though it is likely that it continues further eastwards below the vertical limit of excavation of the sondage. A deposit of loose dark brown silty sand with occasional subrounded and subangular pebbles (1058) had accumulated over and against the tumble deposit. It also contained very occasional larger subrounded and subangular cobbles, which had presumably slipped from the tumble deposit (1049)

as the layer accumulated around it. The full depth of (1058) was not established, but it was greater than the 0.29m depth of the sondage. (1058) is currently interpreted as a relict soil horizon on the external eastern side of the roundhouse which had formed after the deposition of entrance tumble deposit (1049) and was subsequently buried by windblown sand deposit (1003). A sherd of probable Roman-British period coarseware SF1097 was recovered from (1058) during excavation.

SE external excavation quadrant

In the external SE quadrant, a subrectangular area to 4.4m long and 3.8m wide was partially excavated between the external roundhouse wall facing [1009], the ENE facing quadrant section and the southern limit of Trench 1 (Fig. 7). Due to time constraints, only limited works could be conducted in this area. A sondage 1m wide and 1.51m long was however cut against the WNW facing baulk section between external roundhouse wall facing [1009] and straight linear wall [1010] to provide further information on the sequence of deposits here (Figs. 8 and 12).



Fig. 43 Trench 1, roundhouse [1024], SE external excavation quadrant, buried soil (1030)



Fig. 44 Trench 1, roundhouse [1024], SE external excavation quadrant, deposit (1029/1056)



Fig. 45 Trench 1, roundhouse [1024], SE external excavation quadrant, contexts (1038), (1039), and (1045)



Fig. 46 Trench 1, roundhouse [1024], SE external excavation quadrant, stony deposit and possible wall (1039 and 1045)



Fig. 47 Trench 1, roundhouse [1024], SE external excavation quadrant, orthostatic wall [1010]

Deposits

The machined ground surface in the external SE quadrant was formed by deposit (1030), a mid-brown sand with occasional subrounded and subangular pebbles (Fig. 7.43 and 12). The deposit was up to 0.18m deep and appears to be a former soil horizon that had begun to form outside of the roundhouse on its southern side before inundation by windblown sand (1003). Three finds were recovered from (1030): a ferrous metal object, possibly a rivet or nail head SF1032 and two fragments of probable Roman-British period ceramics, a rim sherd from a large shallow bowl SF1036 and a coarseware sherd SF1037.

The soil horizon (1030) overlies the roundhouse wall tumble (1022) which had accumulated against wall facing [1009] on the external south side of the building (see Sec 2.5.2 above). Once the tumble was removed, the pebbly deposit (1046) that ran concentrically with the roundhouse external wall face [1009] and formed the upper level of the possible eavesdrip feature was exposed (see Sec 2.3.6), along with deposit (1029)/(1056) to its south.

Deposit (1029)/(1056) extended across the external SE excavation quadrant between possible eavesdrip feature's upper pebbly deposit (1046), straight linear wall [1010] and the south limit of Trench 1 (Fig. 44). It was up to 0.24m deep as viewed in the sondage (Figs 8 and 12). It consisted of a firm mid greyish brown silty sand with frequent subangular pebbles 2-5cm long and rounded, subrounded and subangular cobbles 5-24cm long. Its upper surface was generally level with the upper surface (1046) of possible eavesdrip feature (see Sec 2.3.6) suggesting that it represents a former ground surface on the SE side of the roundhouse. Five finds were recovered from (1029)/(1056). These included three fragments of probable Roman-British period ceramics: a sherd of coarseware SF1040 and two Black Burnished ware sherds SF1052 and SF1086. An as-yet unidentified ferrous metal object SF1042 and a ferrous metal nail SF1058 were also recovered.

Despite the fact that no cut could be identified for the possible eavesdrip feature, deposit (1029)/(1056) appears to run under it and therefore predates it (Fig. 8 and 12). (1029)/(1056) also appeared to continue under both the straight linear wall [1010] (see also Sec 2.7.3.3 below) and the outer facing stones of roundhouse wall [1009] (see also Sec 2.3.1 above), suggesting it predates them both. In the case of wall [1010], (1029)/(1056) appears to be the ground surface upon which the wall was constructed but further work will be needed to demonstrate this, and the relationship with wall facing [1009], conclusively. In the sondage against the ENE baulk section, deposit (1029)/(1056) sealed the fill (1048)/(1071) of straight linear ditch [1070] (see Sec 2.2 above).

The removal of (1029)/(1056) in the external SE excavation quadrant exposed deposits (1038) at the western side of the excavation area and (1039) and (1045) to the east (Figs 7 and 45).

Deposit (1038) was approximately 2.40m long and between 1.40 and 2.00 m wide, located between the possible straight linear wall [1010] and the outer facing stones of roundhouse wall [1009]. It consisted of a friable dark brown silty sand with abundant small rounded pebbles and occasional larger subrounded and angular cobbles up to 20cm long. The depth of the deposit was not established. A heavily corroded as yet unidentified ferrous metal object SF1079 was recovered from its surface during cleaning along with fragments of copper alloy SF1080. Its stratigraphic relationship with (1039), a deposit that contained much higher quantities of subangular and angular cobbles, to the east was not established. Additional excavation works are required to provide further stratigraphic information and interpretation of the deposit.

Deposit (1039) in the NE part of the external SE quadrant excavation area was approximately 2m long and between 0.97m and 1.47m wide (Figs 7 and 46). It consisted of a friable mid to dark brown silty sand with frequent subangular and subrounded pebbles and abundant subangular cobbles and boulders up to 40cm long. The deposit was only partially explored. It appears to be a deposit of dumped or tumbled stone, however, it is stratigraphically earlier than the former ground surface (1029)/(1056) that roundhouse wall tumble (1022) had settled on and therefore relates to a different phase of activity to the roundhouse tumble. Some of the cobbles were removed to reveal the possible wall [1054] immediately to the south of (1039) and it is possible that they relate to that structure (See also Sec 2.7.3.2 below). No finds were recovered from deposit (1039).

Deposit (1045) was identified in the SE corner of the excavation area on the south side of possible wall [1054] and to the east of wall [1010]. The deposit was at least 1.55m long and 1.26m wide and continued beyond the eastern edge of the SE external quadrant and the southern edge of Trench 1 (Figs 7 and 46). It was only partially explored in section to a depth of 17.1cm due to time constraints and its full depth was not established. It consisted of a soft mid brown silty sand with occasional to moderate subrounded and subangular cobbles 5-25cm long. Two sherds of probable Roman-British period Coarseware SF1077 were recovered during excavation. The deposit abutted possible wall [1054] to the north, no trace of a wall cut was identified in it and it seems likely that the deposit postdates [1054]. Its stratigraphic relationship with wall [1010] was not established. Further work will be required to provide an interpretation of the deposit.

Possible Wall [1054]

Possible wall [1054] was revealed following the removal (1029)/(1056) which overlay it, and parts of the dumped or tumbled stone deposit (1039) to the north, which partially overlay it (Fig. 7). It appeared to consist of a WSW-ENE orientated straight linear double-faced stone built feature, 0.58 m wide, 0.25m high and approximately 1.97m long (Fig. 46). It appeared to abut wall [1010] at its western end, and continued beyond the east limit of excavation of the external SE quadrant excavation area. The possible facing stones generally consisted of subangular and subrounded cobbles and boulders up to 46cm long and the apparent core of the feature consisted of smaller subangular and subrounded pebbles and cobbles up to 15cm long in a dark brown sandy silt matrix. It seems likely that this is an earlier feature than wall [1010] to its SW, it was sealed by the former ground surface deposit (1029)/(1056) whilst wall [1010] appears to be constructed on it. Further work will be required to demonstrate this conclusively however and to establish whether this is a wall or the southern limit of dumped/tumbled stone deposit (1039). No finds were associated with possible wall [1054].

Wall [1010]

The removal of the windblown sand deposits (1002) and (1003) had also revealed what appeared to be the north facing stones and core of an east-west aligned straight linear wall [1010] projecting from the south baulk of Trench 1 (Figs. 7, 8 and 47). Part of its possible south facing was also partially exposed in the trench baulk towards the wall's east end. An approximately 2m long length of the wall facing had been revealed at the south end of the 2019 evaluation trench, however, this phase of work demonstrated that the visible parts of the wall were 3.05m long and more than 0.70m wide. It was orientated east-west and ran tangentially to the south wall of the roundhouse which lay 1.4m to the north. The north wall facing was constructed of large subangular and subrounded boulders

which had been set on their ends and measured up to up to 66cm high, 50cm wide and 37cm thick. The excavations in the sondage against the ENE baulk section suggest that the wall facing consists of a single course of boulders.

The wall core (1028) consisted of smaller subangular and subrounded cobbles up to 20cm long in a dark brown silty sand matrix. Two fragments of probable Roman-British Period ceramics were recovered from the surface of the wall core during cleaning: a sherd of coarseware SF 1033 and a Sherd of Black Burnished ware SF1034.

The wall appears to end abruptly to both the west and. At the west it terminates within the baulk and no other features are visible. At the east, it appears to terminate against possible wall [1054] and deposit (1045). No direct stratigraphic relationship between these 3 deposits was established, however, wall facing [1010] possibly appears to have been constructed on (1029)/(1056), a deposit which overlays (1045) and [1054], which, if it is the case, makes wall [1010] later than both (1045) and [1054]. Further work will be required to demonstrate this conclusively, however, and also to establish whether wall [1010] is part of a larger structure that lies in the unexcavated area to the south of the edge of Trench 1.

4.3.3 Trench 1 summary

The excavation revealed a very well-preserved roundhouse and some associated features. The western side of the fort had been buried in a series of sand inundations, possibly dating from the 14th century. This suggests that the ruins of the larger stone structures at Dinas Dinlle were visible in the medieval period and that the interior of the fort would have looked very different to the current rather featureless undulating rough grazing. The sand inundation protected parts of the interior of the fort from c 700 years of erosion and stone robbing thus providing an important snapshot of a decaying monument as it appeared several hundred years ago.

The roundhouse was found to be unusually substantial with an external diameter of approximately 13.6m, and an internal diameter of 8.6m (58m² enclosed area). Its substantial walls were up to 2.69m thick with boulder facing. The entrance on the eastern side was about 3m wide tapering to 2.5m at the inner end. The roundhouse wall was thickened to either side making the entrance passage 2.96m long. This was faced with large orthostats and parts of a slate floor were uncovered but not fully investigated.

Two probable floor levels were identified. The primary occupation layer overlaid the natural glacial substrate and a series of features, mostly shallow pits were cut into it. A complete but fractured rotary quern stone was lying on the surface. This was overlaid by a possible secondary occupation level that was mostly featureless with one pit cut through it and only two small areas of clay appearing to be an *in situ* surface. This perhaps indicates that this was disturbed after abandonment. A range of finds were recovered from the primary occupation layer including Roman pottery providing evidence for Roman-British occupation. More precise dating will probably be possible when analysis of finds and environmental samples is undertaken.

In some respects the roundhouse is unremarkable. The interior area is close to the mean of 51m² for Welsh roundhouses although above the average of 34m² for stone built examples (Ghey et al 2007 Fig. 18). The walls are however unusually thick; the upper limit is usually c. 2m (Waddington 2013

57). Large and solidly built stone roundhouses are, however, not unusual, particularly in the lowlands but close parallels are hard to find. Some of the Iron Age houses at Parc Cybi are larger but mostly with narrower walls. A notable exception is roundhouse B (and to some extent roundhouse A) where the walls were progressively widened internally, unlike the example at Dinas Dinlle, the multiple phases are obvious in the thickness of the wall with earlier phases of facing being retained.

A second partial parallel is the phase 1b building S at Ty Mawr Holyhead. This is slightly smaller (internal diameter 7m) but the walls are over 2m thick in places and the outer face seems to exhibit the same straight lines of boulder facing. The lack of a coherent pattern of postholes for roof supports is also similar (Smith 1985 21-26). Further analysis is best left until after the next phase of excavation when more information about phasing and construction will be available.

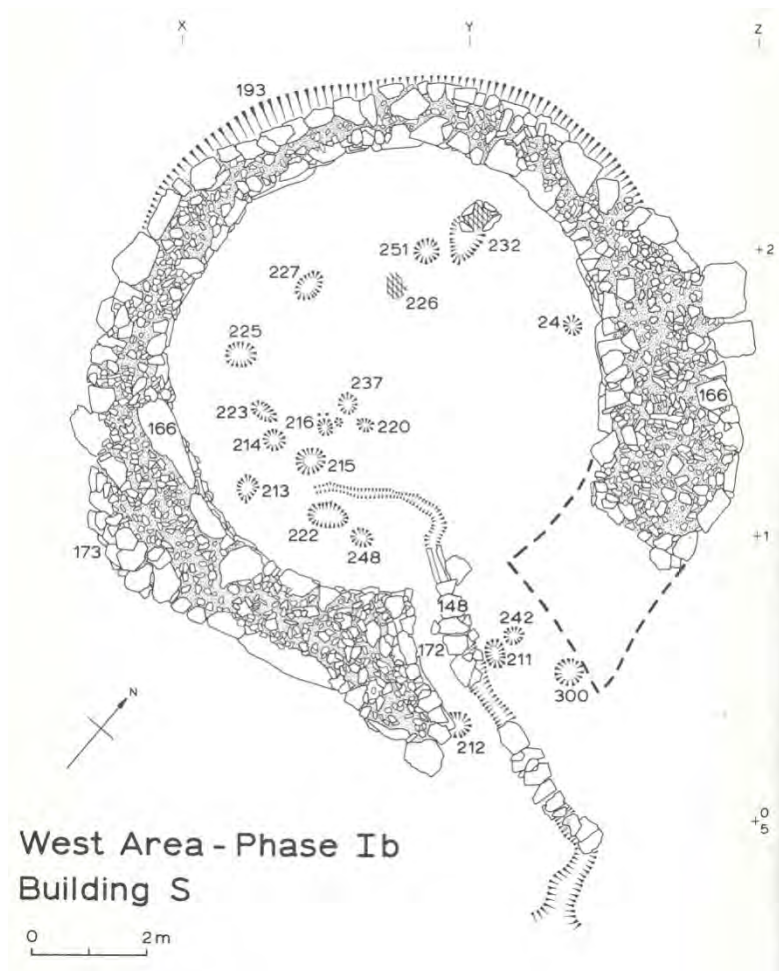


Fig. 48 Building S at Ty Mawr Holyhead (Smith 1985 Fig. 6)

A series of external features to the SE of the roundhouse were partly excavated. These comprised an orthostatic wall, a possible eaves drip feature and an early ditch that predated the roundhouse. Further and more extensive excavation is required in this area in order to fully interpret this area.

After abandonment there was some tumble from the walls and much of the site was covered by a dark sandy soil presumably indicating that there was vegetation growth. The walls appear to have remained partially exposed until covered by windblown sand.

4.4.TRENCH 2

4.4.1 Trench 2 excavation strategy

Trench 2 was designed to further investigate the features found in assessment excavation area 2 from 2019. The 2019 excavation trench was 30m long and 4m wide and set at a slight angle to the cliff edge (Fig. 3). Trench 2 was 20m long and 10m wide and parallel with the edge of the cliff (Figs 1 and 49). It was roughly centred on the middle of the 2019 excavation. The overlying deposits were removed using a 13.5 tonne tracked excavator and hand excavation started on the 23rd August 2021.

The entire trench was cleaned by hand, removing the remains of the overlying sand from the stony bank in the southern third of the trench and the remains of the buried soil from the rest. The section across the bank and associated deposits that was started in the 2019 assessment was extended to cut through the bank down to the glacial substrate. The excavation process was quite slow because the trench was being used for training purposes and it soon became clear that large-scale excavation of the deposits in the trench 2 could not be achieved within the allotted time. Initial assessment was made using a series of sondages some of which were expanded into larger areas of excavation.



Fig. 49 Trench 2 after removal of sand with tracked excavator

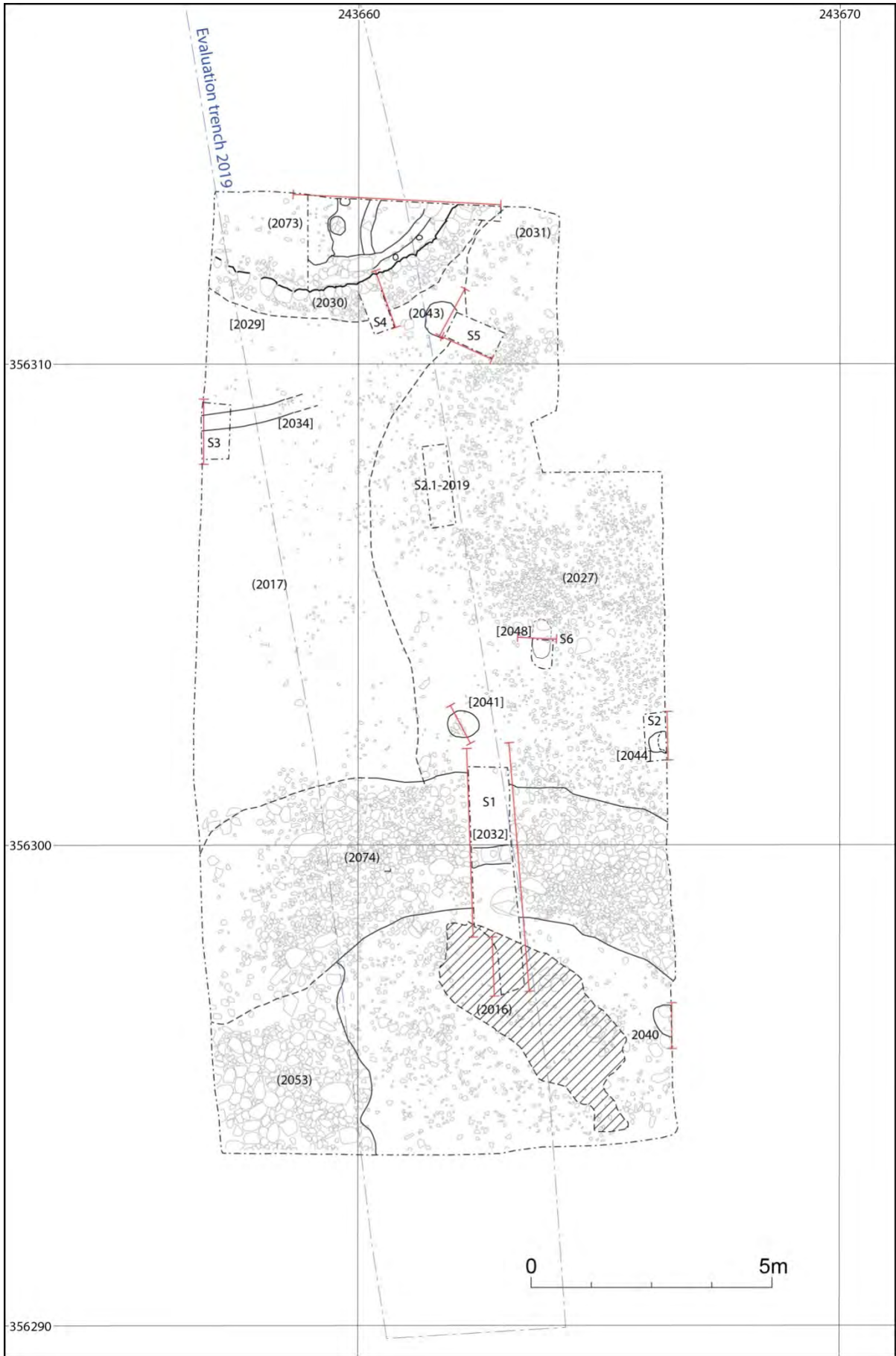


Fig. 50 Trench 2, post-excavation plan



Fig. 51 Trench 2, post-excitation orthographic view

4.4.2 Results

4.4.2.1 Overlying deposits and natural glacial substrate.

The 2019 excavation had identified a depth of between 0.6 and 1.1m of windblown sand across the whole of the trench. This was excavated carefully and was found to consist of a sandy topsoil (2001) and two layers of sand. The upper layer (2002) was about 0.3m deep and consisted of pure yellow sand with a few roots and burrows. This overlaid a slightly darker orangey yellow sand which contained a few small pebbles. Everything apart from a raised stony bank (2074) was also sealed by a dark brown, somewhat sandy, buried soil (2006) that was about 0.25m deep. This was also carefully investigated and partially removed in spits in 2019. It was found to be homogenous and no features could be seen in it. It did however contain a few very abraded sherds of Roman pottery and flecks of charcoal. This was interpreted as a post-abandonment soil. It is probably a continuation of the post abandonment horizons in trench 1 (1030, 1025, 1016 and probably 1072). The investigation of this horizon in 2019 had been both thorough and time consuming and it was agreed with Cadw that the upper parts of it could be mechanically removed with careful archaeological supervision and at the same time as the sand horizons at the beginning of the 2021 excavation.

The glacial substrate (2021) that underlies all of the archaeology can be seen in the cliff face. The nature of the thrust-block moraine means that the glacial deposits are fragmented and variable and range from pockets of sand to dense silty clays containing large stones and occasional small boulders.

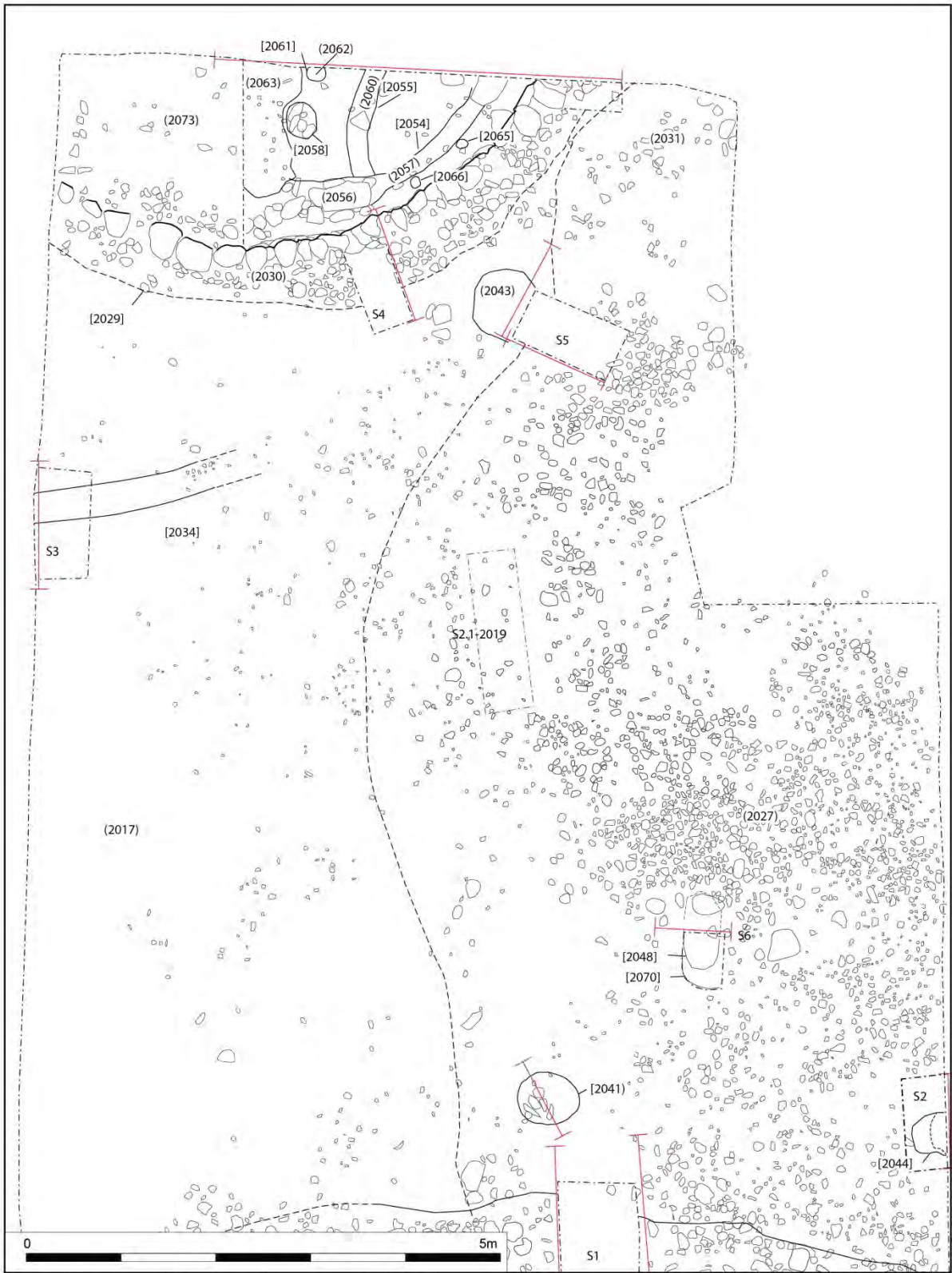


Fig. 52 Northern half of Trench 2. Post excavation plan

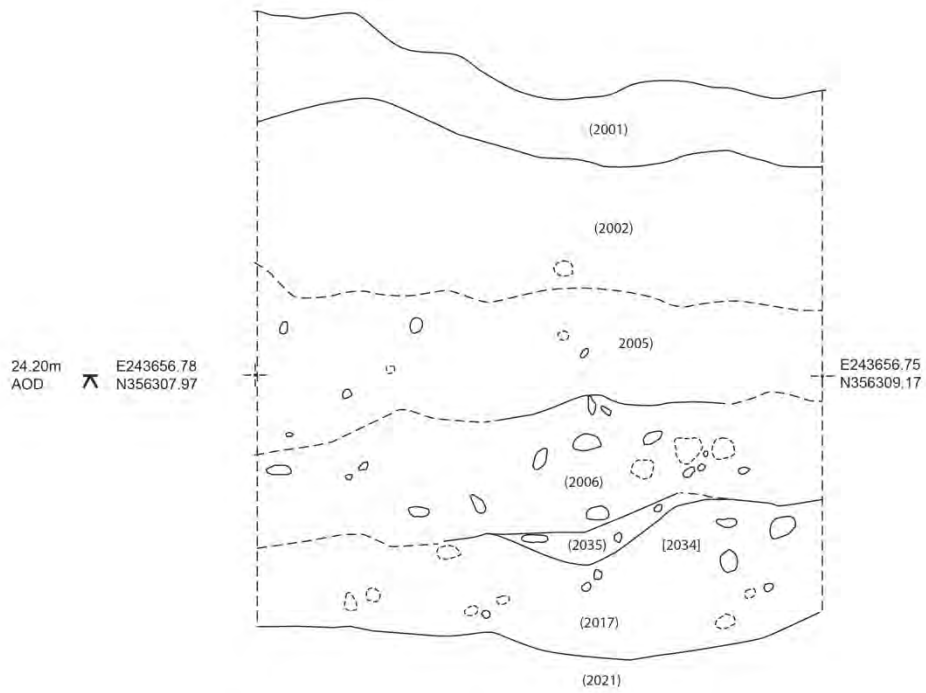


Fig. 53 Trench 2, E facing section, sondage S3

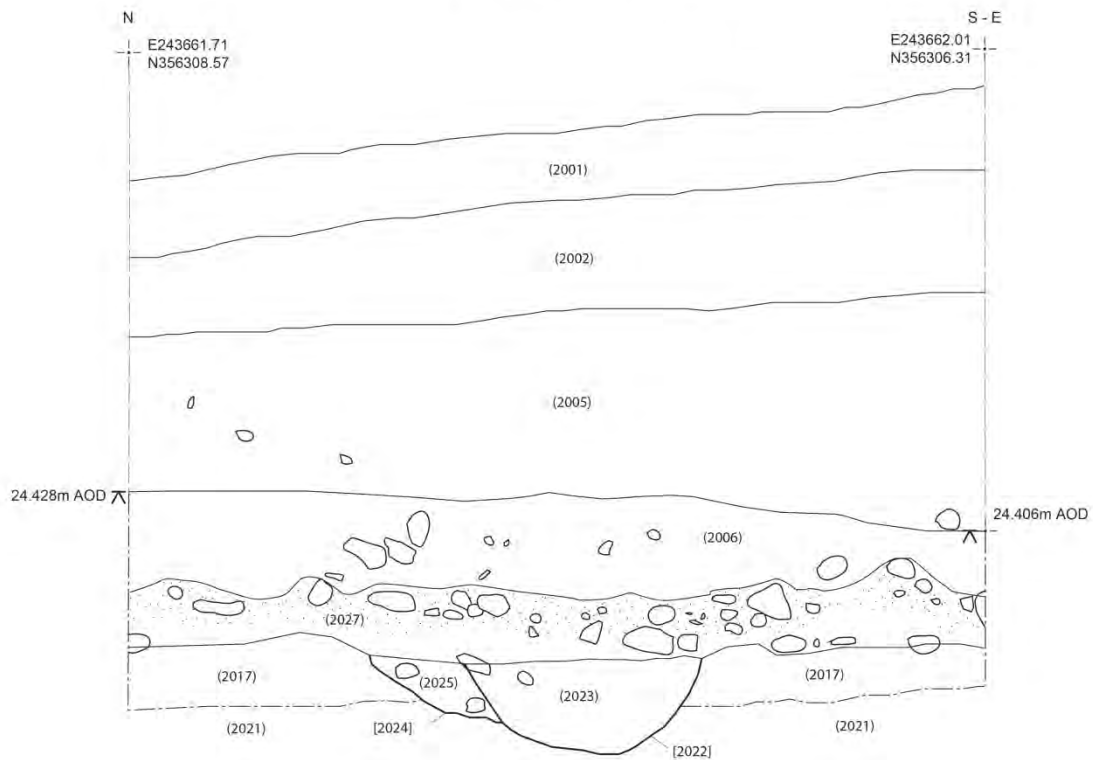


Fig. 54 Trench 2, W facing section, sondage S2.1 2019



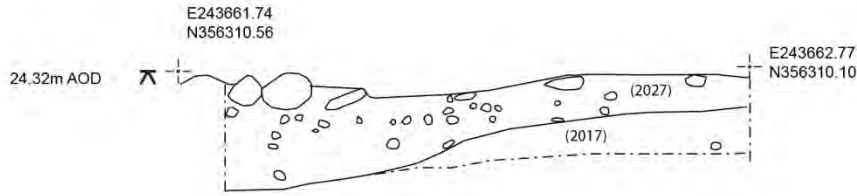


Fig. 55 Trench 2, NE facing section, sondage S5

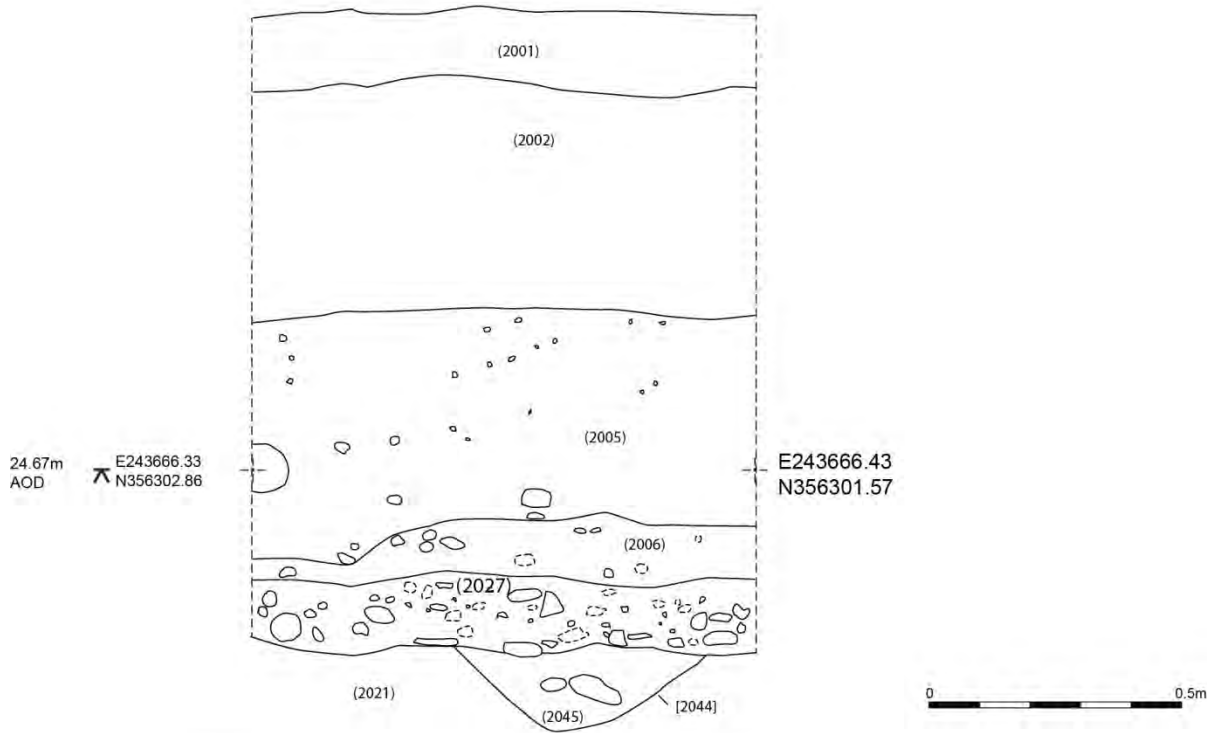


Fig. 56 Trench 2, W facing section, sondage S2

4.4.2.2 Deposits in the northern half of Trench 2

Most of the evidence for the stratigraphy in trench 2 came from a series of sondages as described in section 3.4.1 above (Fig. 52). The earliest deposit was a somewhat variable layer of yellow and yellow brown sand (2017) containing a few small stones that directly overlaid the glacial substrate (2021). This was visible in sondage S3 (Fig.53) where it was 0.3m deep. It could be traced about half way across the trench in sondages s2.1 and S5 (Figs 54 and 55). It was not present at the eastern side of the trench in sondage S2 (Fig. 56) and was not visible in the cuts for features [2041] and [2048] indicating that it peters out in the eastern side of the trench. A similar context (2037) was found to underlie the bank in sondage S1 (Figs 71 and 72). This could not be conclusively show to a continuation of (2017) but is almost certainly the same although (2037) was a little more variable in colour perhaps indicating that it had been disturbed. Two pieces of flint were recovered from 2037.

Everything but the top of the stones on the bank (2007) in trench 2 was sealed by a buried soil (2006). This context was examined in some detail in 2019 (see 3.4.2.1 above) and was found to be a uniform dark-brown sandy-silt containing a few stones with no detectable features cut into it. It was presumed to be an agricultural or trampled layer post-dating the Roman-British occupation. (Figs 53, 54, 56, and 65)

An area of metalling (2027) in the form of spread of variable sized cobbles in a gritty grey matrix extended across the north eastern quadrant of the trench (Fig. 52 and 57). It sealed sand layer 2017 on the western side (sondage S5, Fig. 55) and was laid directly onto the natural substrate on the eastern side (sondage S2). The western side did not have a well-defined edge and appeared to peter out although it should be noted that it may have been slightly truncated during the mechanical removal of 2006. The surface was clearly visible in sondage S2.1 in the 2019 assessment trench although it was not recognised at the time. Figure 06 in Lynes et al (2021) was semi-diagrammatic and did not show accurate detail of stones. This was amended with reference to plate 15 in the current report in order to show (2027) (Fig. 54). The metalling could be traced beneath the southern half of bank (2075/2038) but was bounded by possible wall [2032]/(2033) and did not continue beyond this (see Figs 71 and 72 sondage S1 discussion in 4.4.2.3 below for more details). The northern extent of the surface was not clear; it merged with a featureless area of piled stones (2031) in a brown sandy matrix in the north-eastern corner of the trench. The upper part of context (2031) comprised large rounded stones c. 0.15m in diameter, at a higher level than the metallated surface. The stones became smaller with depth but the distinctive grey gritty matrix of (2027) was not present and it is not clear if this was a continuation of the metallated surface. A variety of finds were recovered from metallated surface(2027) including a sherd of Samian ware, two sherds of coarseware, pieces of red heat-affected clay, slag, an iron object and a hammer-stone. It was also noted that there were frequent heat-affected stones in the surface along with flecks of charcoal.



Fig.57 Trench 2, metallated surface (2027)

Several cut features were identified in the northern end of the trench. The most obvious was a sunken floored roundhouse (context group 2073) discussed below. The whole of the northern end of the trench was not fully revealed as the barrow-run from the southern end of the trench crossed the area and there was not sufficient time to fully investigate. Sondage S2.1 clearly identified three cut features beneath cobble layer (Fig. 54). A small pit 2024 was cut by a shallow linear cut [2023] the fill of which contained a small iron hammer of probable Iron Age date. A second pit [2018] was recorded in the north facing section (Lynes et al 2021, 27).

In the 2021 excavation, a linear feature [2034] cut into sand deposit (2017) was identified on the western side of the area and sectioned in sondage S3 (Fig. 53). This was a shallow (0.07m deep) U shaped channel filled with brownish yellow sand which had almost certainly washed or blown in from the surrounding (2017). This could be interpreted as either a shallow drain or a natural water channel.

A 0.6m diameter circular pit [2041] was cut into the glacial substrate just to the north of bank 2074 (Fig. 58). Sand 2017 was not present here and the cobbled surface was shallow and patchy so no stratigraphic relationship was evident. The feature was found to be a shallow U shaped cut, 0.13 m deep, filled with greyish-yellow clayey sand containing a concentration of small rounded stones (Fig 59). This appeared to be an anthropogenic feature but no obvious function could be assigned to it.



Fig. 58 Trench 2 Pit [2041] before excavation

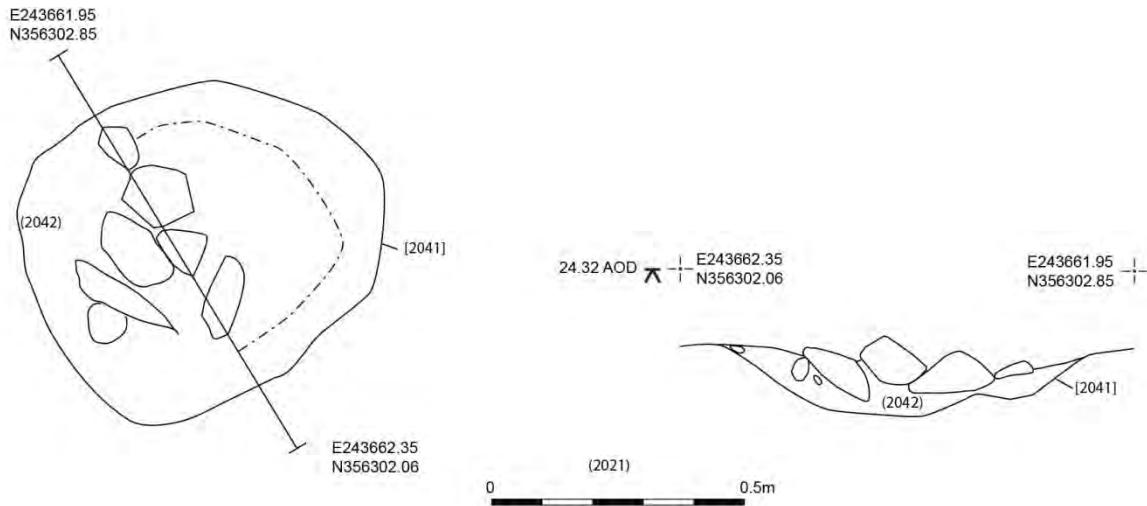


Fig. 59 Trench 2, Pit [2041]

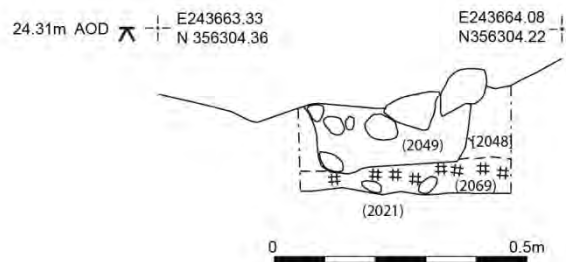


Fig. 60 Trench 2, Pit [2048]

A group of stones somewhat larger than the surrounding cobbles could be seen close to the middle of the metallised surface (2027). The largest stone had been disturbed by the mechanical excavator. The feature was half sectioned revealing a shallow poorly-defined cut [2048] 0.34m in diameter and 0.14m deep (Fig. 60). This contained a few large stones that could indicate that it was the base of a truncated post-hole but a repair in the cobbled surface could be suggested as an alternative interpretation. The feature was cut through the charcoal-rich fill (2069) of another feature that was clearly sealed by the metallised surface. The excavation for the half-section was slightly extended to the south (sondage S6). The edge of a cut was evident in the south-western edge of the sondage. This suggested that (2069) was the fill of a shallow pit cut into natural (2021). No further investigation was carried out.

Sondage S2 (Figs 56 and 61) revealed another cut feature [2044] that was sealed by metallised surface 2027. This appeared to be the end of an elongated pit that extended for an unknown distance under the eastern baulk. This was a shallow V shape in profile, 0.4 m wide and 0.7 m deep with a shallow tapering edge on the western side. It was filled with a dark silty sand containing charcoal flecks.



Fig. 61 Trench 2, sondage s2 showing cut feature [2044] and metallised surface (2027) in section

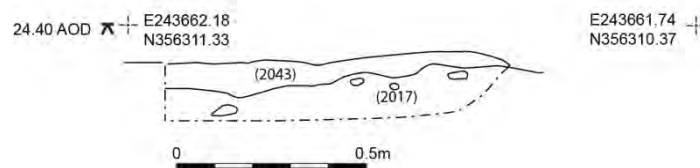


Fig. 62 Trench 2, section across clay feature (2043)

A small spread (0.69m x 0.65m) of very hard white clay (2043) was identified on top of sand (2017). This was sectioned in the north-western end of sondage S5 (Fig. 62) and found to be a maximum of 0.1m thick. This gave the impression of being heat affected but there was no reddening or charcoal. It could be interpreted as a layer of clay used as a base on the sand for an unknown object or activity. No further information was forthcoming.

Sondages 2.1, S2 and S6 all identified cut features predating metallised surface (2027) as chance occurrences while investigating other things. This suggests that cut features sealed beneath 2027 are fairly common. Feature [2041] also appears to be cut at this level. None of the features contained any Roman period finds suggesting Iron Age activity.

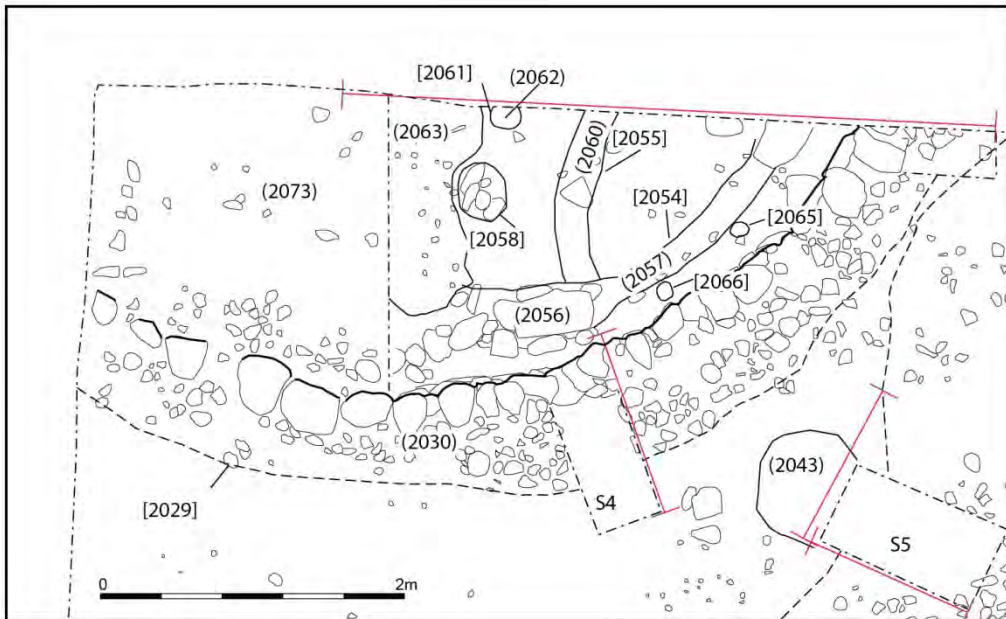


Fig. 63 Trench 2, post excavation plan of roundhouse (2073)

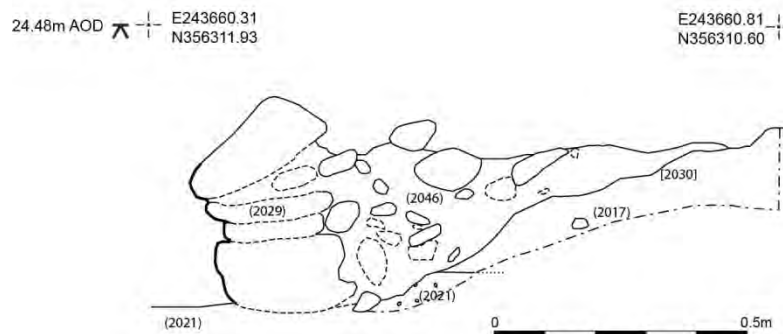


Fig. 64 Trench 2, section across cut for roundhouse wall [2030]

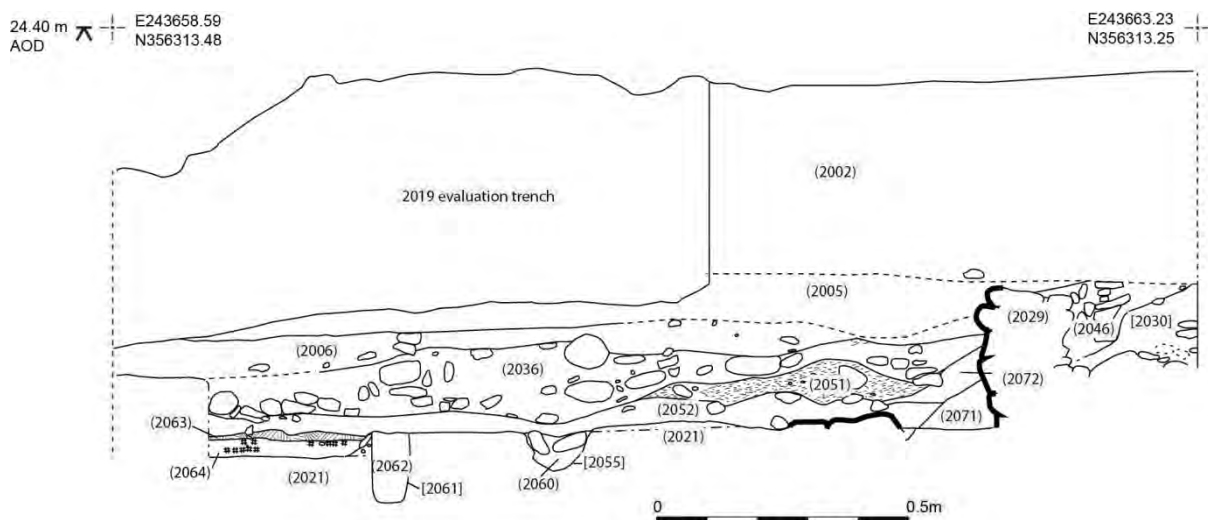


Fig. 65 Trench 2, section across roundhouse (2073)



Fig. 66 Trench 2, roundhouse (2073) excavated to floor level showing drains [2054] and [2055]



Fig. 67 Trench 2, roundhouse (2073) section showing midden deposit (2051)



Fig. 68 Trench 2, roundhouse (2073), drain [2054] capping partly removed and fill (2060) excavated



Fig. 69 Trench 2, roundhouse (2073) upper stone infill (2036)

Roundhouse (2037)

Part of a sunken-floored roundhouse was excavated at the northern end of the site (Fig. 63 plan and Fig. 65 section and Fig. 66 post excavation photograph). This was designated context group (2073). This corresponded to anomalies in both the fluxgate gradiometer survey and, somewhat less clearly, the ground penetrating radar survey (Figs 4 to 6 above). The projected internal diameter of the roundhouse is roughly 6.4m. Fig. 64 sondage 4 shows the method of construction. The wall comprises a 0.35m deep cut [2030] into sand (2017). The inner side of this was revetted with stones built to a fairly neat face (2029) and the cut was backfilled with smaller stones and sand (2046). The base of the facing was sitting directly on the glacial substrate (2021) at the level of the roundhouse floor. The depth of the revetment was somewhat variable. Where it was seen in the main section (Fig. 65) it was 0.55m deep and the cut for the wall was through a stony layer, possibly part of (2031).

A 3.1m x 1.9m area of the interior of the roundhouse was excavated down to floor level and recorded; some of the internal features were sampled (Figs 63 and 65). A layer of redeposited natural (2071) seen in the section against the inner face of the wall appeared to have been used to stabilise the lower course of the revetment wall. This was only present close to the section and did not continue around the inner face. A covered drain [2054] with some extant capping stones (2057) ran 0.3m from, and parallel to, the inside of the wall. A second, slightly curving, drain [2055] ran from north to south and connected with drain [2054]. A capping stone was removed from [2054] revealing that the drains were about 0.25m wide 0.15m deep and were filled with soft grey silt (2060) and (2057) (Fig. 68). A sample of the fill was taken for environmental analysis. Two stake-holes [2065] and [2066] were recorded (but not excavated) between the wall and the drain. These could be part of a circle of stake holes running parallel to the inside of the wall. They could be interpreted as being part of an earlier stake wall but further excavation would be needed to confirm this. A third stake-hole [2061], 0.16m wide and 0.28m deep and filled with soft grey silt (2062) was recorded in the main section across the roundhouse (Fig. 65). A single probable post hole [2058] set 1.0m inside the wall, possibly for a roof supporting timber, was recorded but not excavated.

The remains of a clay floor level (2063) comprising a thin (0.04m) layer of redeposited glacial substrate containing small pebbles was identified at the western end of the excavation. This sealed either an earlier floor level or a levelling layer (2064) containing a mixture of clay, silt, and charcoal. The floor level was not visible in the rest of the excavated area possibly because the natural (2021) was at a higher level and would have functioned as a floor. The cut features and clay floor were sealed by a c.0.1m deep deposit of soft dark grey sandy/silty-clay (2052) containing variable amounts of small pebbles. This appeared to be a disturbed floor layer, possibly mixed with some post-abandonment silting. An accumulation of mid grey-brown sandy silt (2072) against the wall appeared to be material washed or blown in on top of the abandoned floor.

These deposits were sealed on the eastern side of the excavation by an up to 0.2m deep midden deposit (2051), comprising large amounts of cockle shells, a few winkles and mussels and the lower jaw-bone of a dog in, all in a dark brown sandy-silt matrix (Fig. 67). All deposits were sealed by a 0.25m- to 0.3m-deep deposit of rounded stones (Fig. 69) in a matrix of dark yellow-brown sand (2036). This contained fire cracked stones, a few pockets of shells, a small iron object, a few animal bones and single piece of Roman coarseware. The remains of the roundhouse were sealed by post abandonment soil (2006). This context (2006) was not fully excavated in 2019 and as a result the roundhouse was not detected in the 2019 assessment trench.

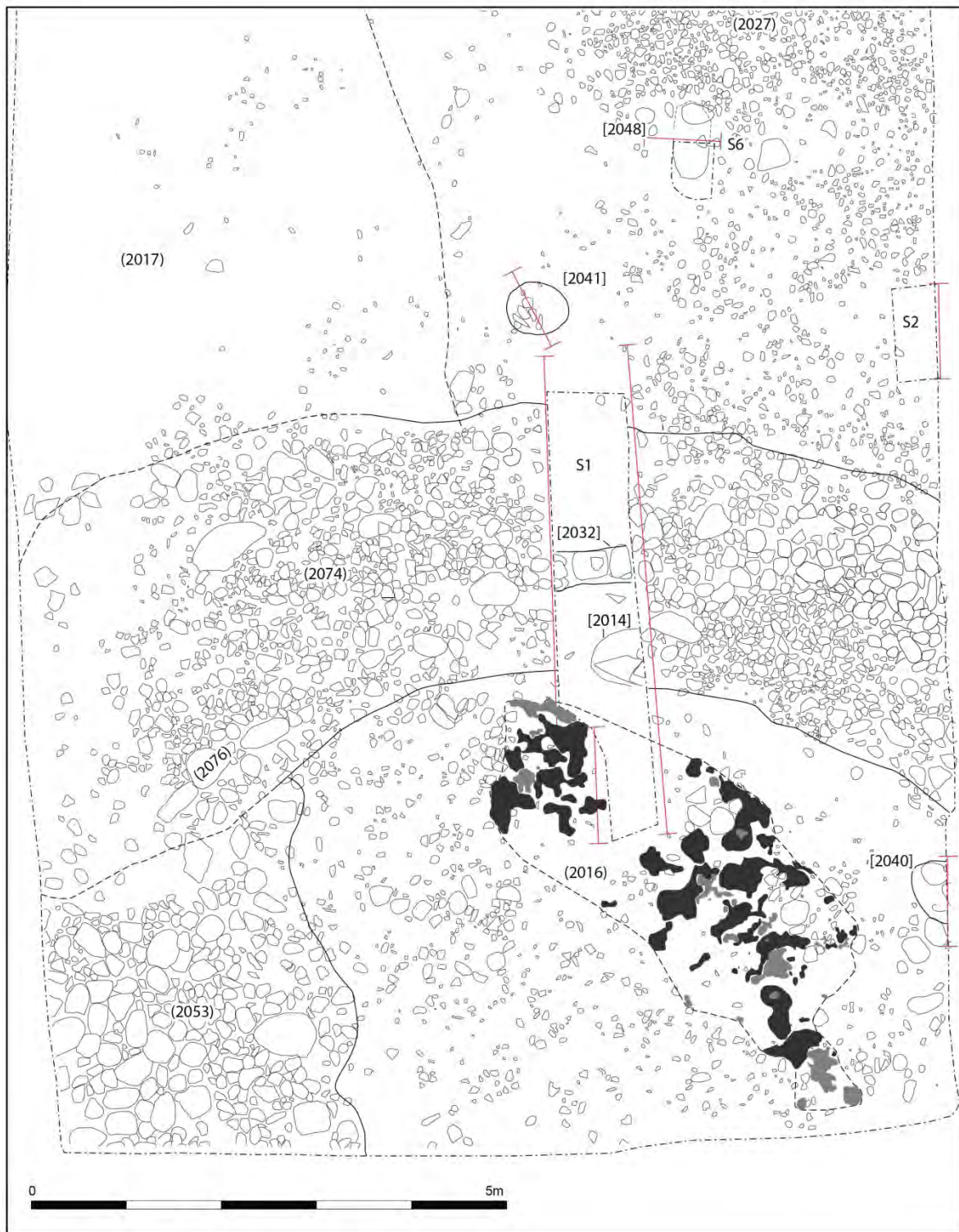


Fig. 70 Southern half of Trench 2. Post excavation plan

4.4.2.3 Deposits in the Southern half of Trench 2 (Bank and occupation area)

Bank (2074)

The most noticeable feature in the trench was a curving stony bank (context group 2074) that was first recorded in the assessment excavation in 2019. The bank was interpreted as a roundhouse wall from the evidence in a small sondage (2.2) in 2019. This interpretation was to some extent a result of the fluxgate gradiometer survey that detected two fairly convincing circular anomalies in the area investigated by trench 2. The subsequent GPR survey detected the northern roundhouse but suggested that the southern anomaly was a longer curving bank that terminated at the western side of the trench (Figs 4 to 6 above). The survey also detected a possible spread of stone to the south of the trench that also extended into the south western corner. This corresponded to part of the fluxgate gradiometer anomaly

The bank marked a change of ground level in the trench (Fig. 73) with the southern part of the trench being between 0.44m and 0.60 higher than the central part (after removal of the windblown sand layers). Sondage 2.2 from the 2019 excavation was extended to 5.0 x 0.9m in order to cut a section through the bank and into the deposits to the south (Sondage S1, Figs 70-72). It was slightly narrower at the southern end because there appeared to be an intact oven or hearth in the western side. This was subsequently investigated and was found to be an irregular spread of heat affected clay.

The sondage revealed the following stratigraphy in the bank. A layer of sand (2037) was found to overlie the glacial substrate (2021). This context comprised almost pure sand with a few small stones and some gravel close to the base. It was typically greyish-yellow fading to grey at the base and reddish and variable at the southern end. It was deepest (0.27m) at the southern end but did not continue to the end of sondage 1. It gradually became shallower at the north end of the sondage with a minimum depth of 0.05m. It appears to be a continuation of the early sand deposit (2017) that overlies the glacial substrate (2021) on the western side of trench 2.

Two features were cut into sand 2037 beneath the bank, a probable pit [2014] and a linear feature [2032]. The extents of the features are marked in S1 on Drawing (Fig.70)

Pit [2014] was first identified in sondage 2.2 in 2019. The exact western limits of the pit were not detected when sondage 1 was excavated in the current excavation but its approximate extent was defined by a group of large irregular pieces of slate. Fig. 74 shows one of the slates that extended into the section and was retained. The fill of the feature comprised dark-brown silty-sand

25.25m AOD E243663.11
N356302.09

E243663.51
N356296.85

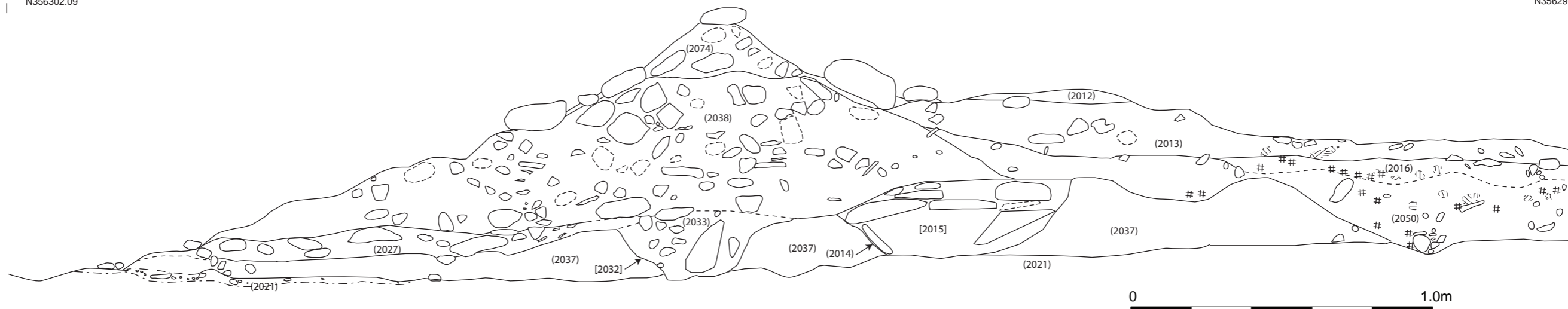


Fig. 71 Trench 2, sondage S1, W facing section

25.10 AOD E243662.97
N356296.79

E243662.88
N56298.027

E243662.41
N356298.03

E243662.29
N356301.87

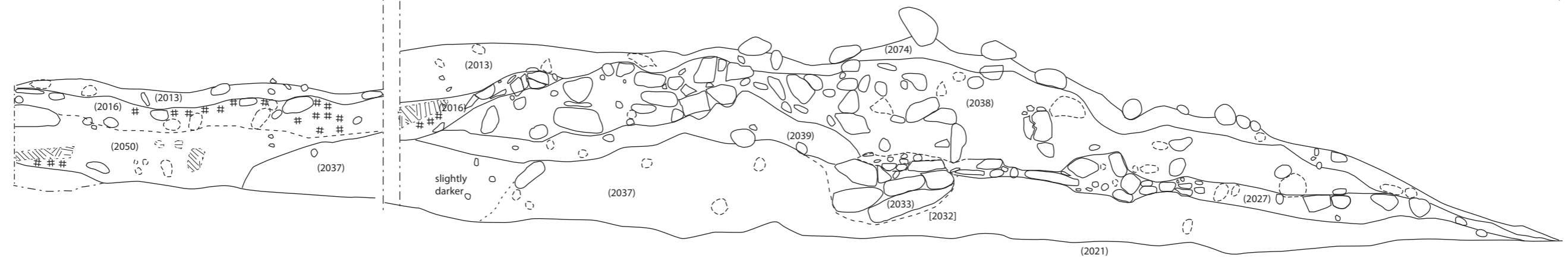


Fig. 72 Trench 2, sondage S1, E facing section



Fig. 73 Trench 2, bank (2074) during excavation



Fig. 74 Trench 2, bank 2074, west facing section of sondage S1. Slate in pit [2014] and stone in possible wall [2032]

containing frequent angular stones. The cut was clearly visible in the west-facing section but the feature did not extend as far as the east-facing section. As noted above, the approximate limits of the feature are marked with a dotted line on the Trench 2 plan (Fig.70). The excavated part of the feature was 0.78m wide and it was 0.25m deep.

Linear feature [2032] was clearly visible in both sections and was cut into sand layer (2037) and in places into the glacial substrate (2021). The cut was somewhat irregular but was steep sided with a fairly flat bottom and ran in an east-west orientation. It was filled with a variety of large stones in a dark-brown silty-sand. The stones appear to have protruded above the cut by 0.05m in places. The two drawn sections are not altogether representative; the east-facing contained well-packed large stones and the west-facing contained a few stones in a silty-sand matrix. The cut across the trench between the sections contained two large stone blocks sitting on a few smaller stones. Fig. 74(above) shows the easternmost stone *in situ* before the section was cut back to vertical. The feature could be interpreted either as a stone-filled drain or the base of a stone feature such as a kerb or the base of a wall. The presence of the large blocks of stone in the fill, which seem to be too thick to be drain capping, suggest the latter interpretation is most likely.

All the above contexts were sealed by a bank of stone and firm compacted brown sandy silt (2038). This was up to 0.45m deep and contained variable amounts of stone ranging from c.90% to less than 10%. The relatively high proportion of earth indicates that it was a deliberately constructed bank as opposed to a dump of stones. No finds were recovered from either the bank or the contexts sealed beneath it. A lens of dark brown sandy silt (2039) was recorded beneath the south side of the bank in the east-facing section (but not the west-facing). This was free of large stones and but appeared to also be part of the body of the bank and perhaps represents earth from a different source to the rest. There was a layer of stones (2074) on top of the bank with wind-blown sand in between them. These were on average larger than the stones in the bank and appeared to be later dumped material as opposed to bank material with the earth eroded from between the stones. A alignment of three large stones (2076) close to the inside of the bank were clearly deliberately placed but no continuation could be traced apart from two stones (only one on the drawing) on the southern side of the bank, on the east side of sondage S1/S2.2, that were in roughly the same alignment.

The lower sand horizon (2037) extended beyond the bank to the south and partly contributed to the increase in ground level. Most of the increase in height was, however, due to a series of deposits overlying the sand and the bank and extending to the south. Sondage S1 shows the stratigraphy in this area (Figs 71 and 72). A very variable deposit of mid-brown sandy silt/clay (2050) was found to overlie the natural substrate (2021), sand horizon (2037) and the south side of the bank (2038). This contained charcoal, large pieces of yellowish clay, and small stones. Only a small amount of this context was excavated in the section and the only find was a possible worked flint. The variable nature of this material suggests that originated from elsewhere in the hillfort and was dumped behind the bank to form a terrace.



Fig. 75 Trench 2, heat affected area (2016)



Fig. 76 Trench 2, crushed pottery in heat affected area (2016)



Fig. 77 Trench 2, crushed and burnt pottery in heat affected area (2016)



Fig. 78 Bronze brooch top and side view

An area of heavily heat affected material (Fig. 75) containing patches of charcoal and reddened clay (2016) appeared to be *in situ* burning on the top of (2050) which made up the terrace. The heat

affected surface contained very frequent sherds of black burnished ware (Figs 76 and 77). Around 80 sherds were recovered and they appeared to be from a small number of vessels that had been dropped, crushed and subsequently heat affected. Context (2016) appeared to have been an occupation or activity layer with multiple fires set over an irregular area of 5m x 2m. The fired clay and charcoal were in mostly coherent patches but showed some signs of trampling or other disturbance. There was no obvious focus to the activity suggesting that this was an area of activity as opposed to being the remains of a single hearth or oven. Several loose concentrations of larger stones were recorded within the context and some were investigated but none could be resolved into post holes or structures. The limits of the context are somewhat unclear because as the effect of the burning becomes less pronounced there is little distinguish from (2050) which is its parent context. A Roman bronze plate brooch was recovered from the margins of (2016) where it overlaid the bank. Samples were taken from this context in 2019 and common wheat (*Triticum* sp), barley (*Hordeum* sp), and possible oat (*Avena* sp) were identified. Radio carbon dates produced a range of dates throughout the Roman period and it is likely that pottery will produce more accurate dating. (Lynes et al 2021, Appendix VII and appendix XV)

The whole of the terraced area to the south of the bank was sealed by a uniform dark brown buried soil 2013 that is probably a continuation of 2006 that was encountered elsewhere. This was mostly removed by hand. This revealed a fairly uniform spread of mid-brown sandy silt/clay containing varying amounts of stone. It is presumed that this is the top of (2050) as revealed in the Sondage S1 sections. This was however more uniform than (2050), perhaps due to weathering or trampling of the upper part of the context. The extent of (2050) (and as noted above in relation to (2016)) is therefore somewhat unclear. There is a clear change to the west where an accumulation of large rounded stones in a silty sand matrix occupies the south-western corner of the trench. This extends beyond the trench to the south and west. The stones are mostly large and fairly well-sorted suggesting that they are rubble perhaps from a structure between the trench and the inside of the rampart to the south. A single posthole [2040], cut through (2050), was visible on the eastern side of the excavation (Figs 79 and 80). This was 0.35m deep and contained 0.20 to 0.25m m long packing stones around a 0.2m diameter post pipe.



Fig. 79 Trench 2, posthole [2040] before excavation

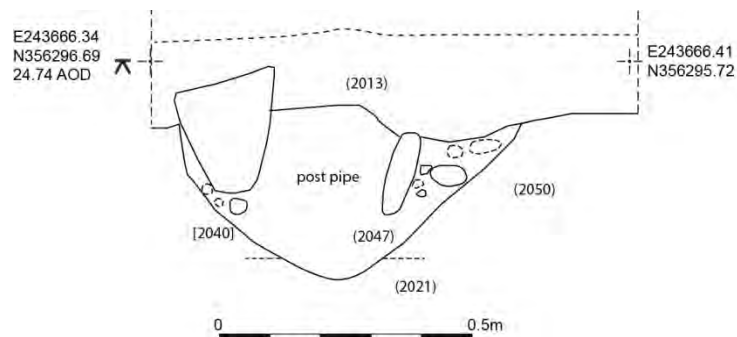


Fig. 80 Trench 2, w facing section across post hole [2040]

The area to the south of the bank was not fully investigated. Trench 2 was a training excavation for students and as the excavation drew to a close work concentrated on trench 1. Some conclusions could, however be drawn. The area was a deliberately constructed terrace made by the construction of an earth and stone bank, probably along the line of an existing internal division of the hillfort as defined by low wall or cut [2032] beneath the bank. It is likely that the ground level was raised behind the bank by dumping of material (2050) from elsewhere. A few stones (2076) suggest that there might have been facing around the inside of the bank but this was too fragmentary to allow any definite conclusions to be drawn. It did not however appear to be part of a roundhouse wall as suggested in the 2019 report.

The heat affected area contained frequent pieces of trampled domestic pottery suggesting that it was an area used for cooking or other domestic activity as opposed to having an industrial function. No evidence beyond a single post hole emerged for the existence of a structure in this area. This suggests that this was used for open-air activity but further excavation could reveal more structural features. A large quantity of rubble in the south-west corner of the trench may have come from a nearby structure and the domestic activity could have been associated with this. Further investigation of this area is recommended, preferably including an expanded area to the south.

4.4.3 Trench 2 Summary

Trench 2 was found to contain complex stratigraphy that could not be fully explored during a relatively short training/volunteer excavation. The earliest deposit appeared to be an early windblown sand deposit directly overlying the glacial substrate. No luminescence sampling took place in this phase so this deposit remains undated but could be immediately post glacial. The earliest features were cut into this, namely roundhouse (2073) and the largely unexplored features beneath the metalled surface (2027). Roman period finds were not recovered from these features and it is suggested that they date from the pre-Roman Iron Age. It is hoped that radio-carbon dates can be obtained from the early deposits. The roundhouse was sunken floored with a lightly built wall revetting the edge of a hole dug into the sand down to a level close to the natural substrate. After abandonment a midden of shells and bones was deposited on one side of the roundhouse and the structure was subsequently filled with stones and earth. This could be considered to be a ritual closure or simply a pragmatic response to a large hole in the interior of the hillfort.

A roughly laid metalled surface (2027) could be traced across the north and eastern part of the trench. This extended to the east of the excavated area and sealed the features cut into the early sand deposit. The metalled area was bounded by a cut feature (2032) at the south, possibly the foundations of a light wall or revetment, cut through the early sand deposit down to a more stable foundation on the glacial substrate. Finds of roman pottery on the northern part of the metalled surface demonstrate that this part of it was in use in the Romano-British period.

A substantial stone and earth bank was built over the wall/revetment and the south end of the metalled surface. Material was deposited to the north of the bank to form a raised terrace. There were no Roman finds from either the body of the bank (2038), the dumped material forming the body of the terrace (2050) or the contexts sealed beneath it (2037, 2033, 2015, and 2027). It can be provisionally suggested that these contexts are pre-Roman although relatively small amounts of the body of the bank (2038) were excavated making it less likely that finds would be recovered compared to other more extensively excavated contexts. There is scope for recovery of some radiocarbon dates from samples that have been taken from these contexts so more dating evidence may emerge during further post-excavation work.

Roman material was concentrated on the area of heat-affected surface of the terrace (2016) the metalled area (2027), piled stones 92053), stone fill of roundhouse 92036) (although this was a single coarseware sherd amongst a loose stone fill that could be intrusive). It is therefore clear that there was Romano-British activity within the area of trench 2. There are however no structures that can conclusively be shown to be Romano-British although the concentration of activity on the terrace implies that there is either an unrecognised structure within the trench or there are structures in the immediate vicinity.

5. CONCLUSIONS AND RECOMMENDATIONS

The two trenches revealed complex Iron Age and Romano-British Archaeology within Dinas Dinlle. The deposits and structures are unusually well-preserved as a result of having been buried beneath a deep layer of wind-blown sand possibly in the 14th century. This has provided protection from stone robbing and other forms of disturbance for the last seven hundred years. The excavation examined about 20% of the currently eroding strip in the interior of the fort and targeted three geophysical survey anomalies. Two of these were confirmed as being well-preserved roundhouses and one as a complex area of activity that still needs further investigation. Extant Iron Age/Romano-British archaeology was identified across the entirety of the excavated areas. The GPR survey identified an additional stone-built roundhouse between the two structures. The geophysical surveys suggest that the main stone-built occupation structures are in the southern half of the coastal strip. It is likely, given the protection provided by the overlying sand, and that there is extant archaeology along the whole eroding edge that could provide evidence for activities carried out within the hillfort away from the stone built structures.

Coastal erosion is inevitable and is progressing at a rate of up to 0.6m per year although the average is 0.2m per year. It is both gradual and episodic with low-level loss caused by water runoff along with episodes of serious collapse when the cliff face becomes unstable. Projections suggest that the erosion rates will increase as a result of climate change. Slumping can be seen in the interior up to 12m from the cliff edge. The archaeology in the areas of slumping has effectively been lost already because these areas cannot be safely excavated.

It has been agreed that a further phase of Cadw grant-aided excavation will take place in 2022-3 that will finish excavating the roundhouse in trench 1. The National Trust has is preparing a scoping study for the consolidation and interpretation of the roundhouse so that it can be left at least partially exposed after it has been fully excavated. This will add considerably to the understandability of the fort and will act as a dynamic gauge of coastal erosion and climate change as the roundhouse is gradually lost to the sea. The rest of the coastal strip contains very well-preserved archaeology and it is hoped that this part of what is an iconic hillfort in terms of both the archaeology and the culture of Wales (via its links to myth and legend) will be preserved by record via a longer term excavation programme before it is lost to coastal erosion.

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8. REFERENCES

- CHERISH project 2018, *Summary of Previous Archaeological Works, Designations and Scheduling at Dinas Dinlle Prehistoric Coastal Fort, Gwynedd, [SH 4370 5635]* unpublished report RCAHMW
- Hopewell, D. 2021 *Excavation and Survey at Dinas Dinlle and Craig y Dinas: Interim Report December 2021*. GAT report 1616
- Hopewell, D. 2022 *Craig y Dinas, Pontllyfni, Landscapes of Antiquity and Myth - Excavation and Survey* (IN PREPARATION)
- Hopewell, D. 2018. *Geophysical Survey at Dinas Dinlle Hillfort, Llandwrog, Gwynedd*. Gwynedd Archaeological Trust Report No. 1434 (Unpublished).
- RCAHMW (M) 1960. (1211) Dinas Dinlle, Llandwrog. An Inventory of the Ancient Monuments in Caernarvonshire, Volume II: Central. Pp. 189-191 & Plate 3.
- Lynes, M. S., Ferreira, C., Oattes, A. M. , Jones, B., Evans, R., McGuinness, N., and Ryan Young, C. 2021 *Dinas Dinlle, Gwynedd, Archaeological Evaluation Excavation* GAT report No. 1582
- Smith, C. (1985). Excavations at the Ty Mawr hut-circles, Holyhead, Anglesey: Part 1. *Archaeologia Cambrensis*. Vol 133, pp. 64-82.
- Smith, G.H. 2005 *A Survey of Prehistoric Defended Enclosures in North-West Wales, 2004-5: West Conwy, Gwynedd (Arfon) and Anglesey*. GAT Report No. 580 (unpublished).
- Uldyrysz-Kraweć, M, Wazjer, M.R. 2020 *Geophysical survey report. CHERISH Ireland-Wales Project – Dinas Dinlle Hillfort Llandwrog* Sumo Survey report 16438
- Ghey, E., Edwards, N., Johnston, R. and Pope, R. 2007 Characterising the Welsh Roundhouse: chronology, inhabitation and landscape *Internet Archaeology* **23**. http://intarch.ac.uk/journal/issue23/johnston_index.html
- Waddington, K. E. (2013). *Settlements of Northwest Wales, From the Late Bronze Age to the Early Medieval Period*. University of Wales Press.



Gwynedd Archaeological Trust
Ymddiriedolaeth Archaeolegol Gwynedd

Craig Beuno, Ffordd y Garth, Bangor, Gwynedd. LL57 2RT
Ffon: 01248 352535. Ffacs: 01248 370925. email: gat@heneb.co.uk

