

PTIA15 – 002

Results of an Archaeological Excavation at Portstown, Inverurie

Commissioned by Malcolm Allan Housebuilders Ltd

PTIA15 – 002 summary sheet

Client:	Malcolm Allan Housebuilders Ltd
National Grid Reference:	NJ 78122 22800 (site center)
Address:	Osprey Heights, Boynds Farm, Uryside, Inverurie. AB51 0HL
Parish:	Keithhall and Kinkell
Council	Aberdeenshire Council
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Project Manager	Alistair Robertson
Text	Matthew Ginnever
Illustrations	Rafael Maya-Torcelly
Fieldwork	Magdalena Benysek, Stephen Cox, Carmen Dahlke, Josh Gaunt, Matthew Ginnever, Fraser Macfarlane, Rafael Maya-Torcelly, Sue McGalliard, Aristotelis Palyvos, Tony Taylor, Richard Tuffin
Specialists:	Laura Bailey, Julie Franklin, Julie Lochrie
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Summary

Headland Archaeology was commissioned by Malcolm Allan Housebuilders Ltd to undertake an archaeological excavation in advance of a residential development at Portstown, Inverurie. The work was carried out in response to a planning condition on an application (APP/2010/3002) submitted to Aberdeenshire Council. The work took place between the 23rd March and 24th April 2015.

The excavation recorded extensive remains associated with prehistoric settlement in the form of three roundhouses, a possible souterrain or grain processing building and numerous associated pits and post-holes. Evidence for metal working activity and general domestic activities was also recovered across the site. The three roundhouses were very well preserved and occupied the crest of a ridge running north-west to south-east overlooking the Urie Valley and with views through to mount Bennachie.

Two of the roundhouses were formed of double post-rings with stone paved ring-ditches along the eastern arcs. The third roundhouse was of a single post-ring construction. All three were estimated to have internal diameters of c.13.00m. A significant amount of burnt daub and vitrified slag was recovered from the structures indicating that they were destroyed by fire. All are thought to date to between the late Bronze Age and Iron Age. A rectangular structure with reveted stone wall, possibly used for grain processing, was located in the south-western corner of the site and represents the latest known activity; radiocarbon dated to 901-952 cal AD.

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INTRODUCTION [Heading Level 1]

Headland Archaeology was commissioned by Malcolm Allan Housebuilders Ltd to undertake an archaeological excavation in advance of a residential development at Portstown, Inverurie. The work was required to meet a condition placed by Aberdeenshire Council on a planning application (planning reference APP/2010/3002). The objectives of the excavation were to preserve by record the archaeological remains on the site by identifying structures and activity areas, establishing the date and duration of any settlement, and obtaining environmental as well as artefactual evidence. This report details the results of the work.

SITE LOCATION [Heading Level 1]

The site was located in arable fields (most recently under cereal crop) east of the B9170 Inverurie to Oldmeldrum road, approximately 1.5km north-east of Inverurie (Illus 1). The site is situated on a plateau on a south-west facing slope overlooking the River Urie. It is centred on NGR NJ 78122 22800, and located at 82-90m OD. The bedrock geology comprises interlayered psammite and semipelite – Aberdeen formation, overlain by superficial geology of a diamicton - Banchory Till Formation, formed up to 2 million years ago in the Quaternary Period (British Geological Survey website; <http://www.bgs.ac.uk>).

ARCHAEOLOGICAL BACKGROUND [Heading Level 1]

An archaeological evaluation was undertaken in November and December 2005 in advance of a residential development to the south-west of the site location. A ring-ditch, dated by pottery to the later prehistoric period, was recorded and two undated ditches lay in close proximity to this feature. Evidence for rig and furrow cultivation was also identified (Roy 2005). A desk based assessment (RSK 2009) detailed the archaeological potential of the area including crop-marks of at least two ring ditches, souterrains and a substantial number of pits; all identified from aerial photographs and located north-west of the proposed development site.

Trial trench evaluation of the site undertaken between November 2013 and January 2014 by Cameron Archaeology identified a series of pits, post holes and possibly circular ditch remains (Cameron 2014). Subsequently, an area of 5,500m² was partially stripped as a preliminary stage prior to future excavation.

In March and April 2014 Headland Archaeology conducted an excavation at Boynds Farm directly to the south-west of the current site covering an area of approximately 9050m² (Dalland and Cox 2014). The excavation recorded extensive remains associated with prehistoric settlement in the form of roundhouses, souterrains, an enclosure, frequent pits and a cremation cemetery. One cremation pit provided the earliest radiocarbon date on site, returning a Late Neolithic date of 3094-2918 cal BC. A souterrain and two further structures were radiocarbon dated to the Middle and Late Bronze Age. Over 400 finds were retrieved. The pottery correlated with the Bronze Age dating while industrial waste suggests the site extended into the Iron Age. Both the finds and environmental evidence indicate that a number of activities took place on site including wool spinning, cooking, bronze casting and ironworking.

The most recent phase of site investigations was carried out by Headland Archaeology in March 2015 and comprised a full topsoil strip of the 5,500m² area and mapping of exposed archaeological features. Provisional assessment of the results indicated the presence of several probable prehistoric roundhouses and a complex of other pits and post-holes. It was deemed highly likely that these features related to the same activity encountered on the site of Boynds Farm.

METHODOLOGY [Heading Level 1]

Site Works [Heading Level 2]

The work was undertaken as specified in the Written Scheme of Investigation (Headland Archaeology 2015). Additional topsoil stripping was carried out to extend the limits of Cameron Archaeology's excavation area in order to establish a 10m buffer between the archaeological remains and the trench edge. A mechanical excavator with a 2m wide toothless ditching bucket was used to remove the topsoil under direct archaeological supervision until the natural sub-stratum or significant archaeological features were encountered.

The final topsoil-strip covered an area of 5500m² extending some 125m east to west by 60m north to south (Illus 2).

Site Recording [Heading Level 2]

All features were cleaned, investigated and recorded appropriately and all archaeologically significant deposits were sampled. All recording followed the ClifA Standards and Guidance for Conducting Archaeological Excavations. Archaeological features and deposits were hand excavated and recorded using standard archaeological methods and pro-forma record sheets. A complete record of the contexts can be found in the Context Register (appendix 1.1).

A site plan including all identified and excavated features and the limit of excavation was recorded digitally using an EDM and related to the National Grid. Complex sections were hand-drawn on permatrace at a scale of 1:10. Stony features such as rubble and walls in souterrains, ring gullies and some pits were recorded using multiple image photogrammetry. This technique produces a digital 3D model based on sets of digital photos taken from different angles. The model is scaled and geo-referenced using at least four reference markers placed around the feature to be modelled. Generally the error between the marker positions as surveyed in the field and the corresponding model location was less than 10mm. Ortho-photos were created from the 3D model and combined with the field survey for illustration purposes. A full list of the completed drawings and ortho-photos can be found in the Drawing Register (appendix 1.2).

A photographic record of all contexts was taken using a digital SLR and included a clearly visible graduated metric scale. A full list of the photographs taken can be found in the Photographic Register (appendix 1.3).

Sediment samples were collected from secure archaeological contexts for processing and assessment. A full list of the samples collected can be found in the Sample Register (appendix 1.4)

Reporting and Archives [Heading Level 2]

The results of the work are presented below. All radiocarbon dates have been calibrated using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1.7 (Bronk Ramsey 2010) and are presented in the text using the 2 σ calibrated age ranges.

The complete project archive will be deposited with RCAHMS within six months of the completion of all work on this project. The records (paper and digital) will be archived according to the guidelines published by the Institute for Archaeologists on behalf of the Archaeological Archives Forum (July 2007).

EXCAVATION RESULTS [Heading Level 1]

The excavation was carried out between March 23rd and April 24th 2015 in mixed weather conditions; the location of the site meant it was frequently exposed to strong westerly winds. Cycles of wet and dry weather allowed for the identification of poorly defined features through differential water retention.

Full context descriptions are included in Appendix 1. Contexts were assigned consecutive numbers for the whole period of works. Cut and structural features are shown as [100] whilst fills and deposits are expressed as (101). The results are described by structure or area.

Topsoil Strip [Heading Level 2]

The topsoil (1001) was generally uniform across the excavation area and comprised mid-brown sandy silt between 0.25 and 0.35m thick overlying the geological subsoil (1000). The latter consisted of orange-brown sand and gravel with frequent angular stones and boulders especially through the centre of the site and down the slope. The site comprised of a level plateau between 87m OD and 90m OD running south-west to north-east along the northern and eastern limits of the site. This sloped away towards the south west down to a level of approximately 82m OD.

A single north-east to south-west aligned furrow was present, cut into the underlying geological subsoil in the north-eastern corner of the site. The furrow measured 1.5m wide, and was oriented in line with the ridge and furrow cultivation noted on the neighbouring site of Boynes Farm (Dalland and Cox 2014). The furrow was up to 0.25m deep.

A number of archaeological features were identified cut into the geological subsoil (Illus 2). These features were distributed across the whole excavation area; although the majority were located on the plateau. A total of four structures were identified; consisting of three roundhouses (Structures M, N and O) and a rectangular structure (P). Three further clusters of pits and post-holes were labelled Areas L, Q and R.

Area L [Heading Level 2] (Illus 3)

Area L was located in the eastern corner of the excavation area and consisted of 18 pits and post-holes of varying sizes. There was no obvious alignment of features to indicate a substantial structure (eg roundhouse) and it is may be that activities took place here associated with the nearby Structure M to the northwest or with the circular enclosure to the southeast; identified on the neighbouring site of Boynds Farm (Structure J; Dalland and Cox 2014).

An oval pit [1392] containing sherds of prehistoric pottery was located on the north-western edge of this cluster of features. The pit measured 3.80m x 1.20m x 0.28m, was in the shape of an elongated oval, and had steep sides and a flat base. The basal fill of the pit (1393) was a compacted mid-yellow-brown sandy silt containing frequent charcoal flecks, fragments of burnt daub and several sherds of prehistoric coarseware pottery. This was overlain along the edges by a yellow sandy silt which appeared to be re-deposited geological sands slipped in from the sides. The pit was sealed by another charcoal-rich yellow-brown sandy silt (1394), similar in appearance to the basal fill. A lump of metal working slag was also recovered from this deposit.

An ovoid pit [1405] (Illus 4) measuring 3.00m x 2.00m x 0.30m was located approximately 2.00m to the south-east of Pit [1392]. The pit had gently sloping sides and a rounded base. A large number of unworked stones in a mid-brown silt matrix (1406) had been deliberately deposited onto the base of the pit. Patches of heat-affected soil and charcoal were also present in this deposit.

Two further ovoid pits were located immediately to the south and the south-west of Pit [1405]. Pit [1417] measured 1.50m x 0.90m x 0.20m, was sub-oval in shape and had gently sloping sides leading to an uneven base. The basal fill of the pit was a black organic-rich silt that appears to have formed whilst the pit was open. This was overlain by a loose brown sandy silt containing frequent medium to large rocks. Pit [1415] was also ovoid in shape, measured 2.40m x 1.20m x 0.20m and had gently sloping sides leading to a rounded base. The pit was filled with a single homogenous brown sandy silt containing frequent gravel and medium to large stones.

Pit [1345] was circular in plan, 0.8m wide and 0.36m deep. The fill (1346) consisted of dark greyish brown silty loam. The organic content implies possible use as a refuse pit; with the presence of poorly sorted charcoal and daub inclusions suggestive of deliberate backfill close to the end of use of an associated structure. It was surrounded by four possible post-holes [1343], [1347], [1349] [1355].

Pit [1420] was located in the southernmost part of the area and was oval in shape. It measured 1.35m x 1.10m x 0.18m, with steep sides and a flat base. The fill, (1421), consisted of a mid-grey brown sandy silt and contained two sherds of prehistoric pottery and a single lithic flake.

Pits [1367], [1411] and [1448] were sub-circular in plan and 0.8-1m wide. The fills contained no anthropomorphic material to better define function. Circular features [1357], [1369], [1407], [1409] and [1413] were on average 0.35m wide and up to 0.2m depth. They have been interpreted as possible post-holes that supported a superstructure around the larger pits.

Structure M [Heading Level 2] (Illus 5)

Structure M was located approximately 10.00m to the north-west of Area L. It comprised a curvilinear ditch with remnants of stone paving, three distinct post rings, a south-west facing porch and associated internal and external features.

The ring-ditch [1176] (Illus 6) measured c.13.00m long, up to 3.00m wide and 0.10m deep and enclosed approximately 190° of a circle which measured 13.00m in diameter. The gully was very shallow and a basal fill of dark brown sandy silt ((1259) and (1260)) filled the base of much of the gully. Possible iron working slag was recovered from deposit (1259). Two patches of paving were present within the north-eastern extent of the

gully. The paving consisted of a single course of unworked, stone slabs [1141] set to form a surface. At least two possible saddle quern stones had been reused as paving slabs. The stones were set either directly onto the geological subsoil or on to patches of deposits (1259) and (1260) which acted to level the stones (Illus 6). A sandy silt deposit (1177) overlay the stones and the basal fill across the whole feature. Charcoal, daub and slag were recovered from this deposit, including a possible hearth cake. Along the outer edge of the gully a number of deposits of heat affected soil mixed with burnt daub (1257) were observed partially overlying the stone paving. These deposits have been interpreted as parts of the outer turf wall that had collapsed onto the top of the gully and been preserved in the depression.

An outer arc of 12 posts, frequently found in pairs, were spaced along a circular footprint with a diameter of c.13.30m located just outwith the curve of the ring gully. It is possible that these posts were placed to support the ends of roof timbers and suggest an overall diameter of the structure of just over 13.00m. The post-holes were circular or sub-circular in shape with steeply sloping sides and rounded bases and varied greatly in size between 0.50m and 0.90m in diameter and between 0.10m and 0.50m depth.

An internal post-ring consisting of 18 post-holes spaced along a circle 7.30m in diameter was located within the arcs of the outer posts and ring-ditch. The posts appear to have been spaced between 0.90m and 1.10m apart, although in the northern half of the ring were spaced much closer. Many were intercutting, such as Posts [1240] and [1242], [1277] and [1279]; possibly representing replacement over time or the presence of supporting posts for the main structural timbers. A c.2.00m gap between posts [1064] and [1051] appears to mark a possible entrance to the south-west. The post-holes were circular or sub-circular in shape with steeply sloping sides and rounded bases

Two large post-holes, [1232] and [1198], formed corner posts for a porch along the south-western arc of the structure. These post-holes aligned with the above mentioned gap between posts [1064] and [1051] of the inner post-ring and together formed a porch way measuring approximately 3.50m wide and 3.00m long. Post-holes [1112], [1110], [1075], [1073] and [1071] may also have formed part of this porch.

Four further post-holes were located within the interior of the roundhouse. These may have been further roof supports or possibly offset replacement posts for the larger inner post-ring. These were evenly spaced around the edges of the interior.

The interior of the structure appears to have been mostly truncated below the level of occupation. A large spread across the middle of the interior (1041) consisted of a dark brown sandy silt containing charcoal and burnt daub and was mostly directly overlying the geological subsoil. It is likely that this represents a post-demolition deposit filling a rocky depression in the centre of the building. This deposit partially overlaid an uneven depression [1044] contained heat effected soil that was interpreted as the heavily truncated remains of an *in-situ* hearth.

The fills of the majority of the post-holes in Structure M were similar to that of deposit (1041), containing frequent charcoal and burnt daub. Notably several large segments of the burnt daub wall were found within

Post-hole [1079] displaying both the rendered internal face of the building and the impressions of the wattle frame on the reverse.

A number of associated features were located to the north west of the structure. Pit [1184] measured 1.58m x 1.22m x 0.58m and was lined with stones ([1185]-[1187]) that formed a small oval shaped structure. It is possible that this feature may have been a short cist but no evidence of human remains were recovered.

Features [1006], [1010], [1012], [1119], [1014] were found in a cluster to the north-west of pit [1184] and consisted of a number of pits and post-holes which were most likely associated with activity belonging to Structure M.

Structure N [Heading Level 2] (Illus 8 and 10)

Structure N was located approximately 9.00m to the north-west of Structure M on the same plateau. It comprised a single post-ring containing 12 post holes, a porch to the north-east, a number of internal post holes and a large external pit.

The post ring was formed of 12 post-holes (Illus 8) spaced around a circle approximately 8.00m in diameter. Posts appear to have been spaced between 0.70m and 2.30m apart with posts being closer together on the northern and eastern arcs of the structure. Most post-holes were circular in shape, with near vertical sides and rounded bases. A single post-pipe was visible in post-hole [1378] with a diameter of 0.24m.

Post-hole [1460] and [1458] were located c.2.00m to the north-east of the post ring and appear to form the corner posts of a porch just over 2.00m wide. Post-holes [1454], [1365] and [1383] were probably also related to the porch structure forming an entrance from the north-east.

Internally the structure appeared to have been truncated to below the level of occupational layers and features, and no evidence for an internal hearth was noted. A central post-hole [1428] appears to be related to the post-ring and most likely marks the location of the apex of the roof. Four large internal post-holes [1426], [1431], [1439] and [1441] were likely supporting posts for large roof timbers.

Post-holes [1437], [1450], [1452] and [1456] potentially formed an internal partition wall screening much of the interior from being viewed through the entrance.

The deposits filling most of the features in Structure N were very similar, consisting of dark-brown sandy silts containing charcoal and burnt daub and clay. Very few artefacts were recovered from this structure. Notably however a stone thack weight and a cobble tool were recovered from the base of Post-hole [1426]. These may have been re-used as packing stones for the post or placed into the cut after the post was removed.

Pit [1422] (Illus 9) measured 1.40m in diameter and 0.94m deep and was located 1.00m to the east of the post-ring. It was sub-circular in shape with very steeply sloping sides and a flat base. The basal fill consisted of poorly sorted frequent angular stones in a sandy silt matrix. This was overlain by a dark-brown sandy silt with

occasional charcoal and burnt daub. From this sequence it appears that the pit was mostly backfilled before the structure was burnt down and post-demolition fill sealed the pit.

Structure O [Heading Level 2] (Illus 11 15)

Structure O was located approximately 5.00m to the north-west of Structure N, and was very similar in form to Structure M. It consisted of a curvilinear paved gully, two internal post rings, a possible porch to the south-west and a number of associated internal hearths, pits and post-holes.

The ring-ditch [1026] (Illus 12 and 13) measured c.13.00m long, up to 2.50m wide and 0.20m deep. It enclosed approximately 175° of a circle which measured c.13.00m in diameter. The edges were very gently sloping and imperceptible in places with an irregular and undulating base. The shape of the base was influenced by the need to set the irregular sized and shaped stones [1084] in order to create a flat paved surface across the gully. This paving consisted of a single course of stones which varied from less than 0.20m to greater than 0.50m in size with all appearing to be locally sourced and unworked. Abutting, and in some areas overlying, the stones were mixed deposits of heat effected soil mixed with burnt daub (1125). As with Structure M, these deposits have been interpreted as parts of the outer turf, wattle and daub walls that had collapsed onto the top of the gully and been preserved in the depression.

The heavily truncated remains of a narrow and shallow gully [1352] were observed immediately to the south-east of the paved gully and likely enclosed at least the upslope facing edges of the structure. It is possible that this feature represents the heavily truncated remains of a ring-groove, which were used to support the outer wall of roundhouses.

Following the inner curve of the ring-ditch was a complete ring of ten post-holes (Illus 11) spaced around a circle with a diameter of c.7.60m. Posts were spaced between 1.30m and 1.70m apart with a larger 2.60m gap between Post-holes [1131] and [1285] marking a south-western entrance to the interior.

A possible porch on Structure O was suggested by Post-holes [1094], [1129] and [1127] which were located c.2.00m to the south-west of the entrance gap.

A second ring of eight posts was located immediately within the first evenly spaced around a circle with a diameter of 5.70m. Post were spaced between 1.30m and 1.50m apart with the widest gap occurring between post-holes [1275] and [1253] in the south-western corner; respecting the same entrance as the outer post-ring. A number of closely associated post-holes such as [1238], [1273] and [1230] appear to represent supporting or replacement posts for this inner ring.

As with the other structures above, internal floor levels and features appear to have been truncated to below the level of occupation. However two features, [1211] and [1205], displayed signs of heat affected soil and have been interpreted as the location of possible hearths. A number of other internal post-holes including [1299], [1300], [1162] and [1230] may have acted as further roof supports or formed internal divisions.

Two large pits were located within the interior of this building. Pit [1060] was ovoid in shape with very steeply sloping sides and a flat base. The pit measured 1.75m x 1.30m x 0.92m and was located within the inner post ring close to the two potential hearth features. The basal fill (1067) consisted of re-deposited geological sands mixed with silt and ash and filled the base up to 0.13m thick. This was overlain by a very dark grey-brown

sandy silt (1066) up to 0.18m thick, containing medium sized stones, frequent charcoal, burnt daub, fired clay and burnt bone. The pit was then sealed by a dark grey-brown sandy silt (1061) which also contained charcoal, burnt daub and bone and also a single burnt lithic. This fill is similar to other deposits throughout the structure and appears to be a post-demolition deposit indicating that this pit was open prior to the destruction of the structure.

Pit [1153] was located 2.60m to the north of [1060] and within the two post-rings. It was circular in shape and measured 1.45m in diameter and 0.36m deep, with steep sides and a flat base. The pit was entirely filled by a yellow-brown clay silt (1154) containing occasional stones and charcoal. The fill appears to be mostly mixed re-deposited geological sands and silts, most likely the up-cast from the excavation of the pit suggesting that this feature was backfilled soon after excavation.

Two further substantial pits were located close to the structure immediately to the north-west. Pit [1016] (Illus 14) measured 2.20m x 1.70m x 0.60m, was ovoid in shape and had vertical sides and a flat base. Flat stones [1049] were carefully laid on the base of the pit to create a surface (Illus 11), with a sandy silt soil (1047) used to level the stones in places. The stones were then overlain by a succession of erosion deposits from the edges consisting of light-brown silts and sands ((1048), (1062) and (1046)). These deposits appear to be post abandonment fills and suggest that the pit remained open for some time after its use before it was backfilled with deposit (1045) which was a dark brown-grey clay silt containing charcoal and burnt daub, very similar in appearance to the post-demolition fills found throughout Structure O. The pit seems likely to have been used for storage, with the flat paving at the base utilised to keep the contents (such as foodstuffs) elevated off the damp ground.

Pit [1223] (Illus 16) was located 4.20m to the north-west of [1016] and was very similar in appearance. The pit was ovoid in shape, with vertical sides and a flat base. The cut was terraced into the slope with the southern and eastern edges near vertical while the western edge was almost imperceptible. The cut measured 2.50m x 2.20m x 0.40m. As with Pit [1016], the base of Pit [1223] was paved with flat stones [1225] to create either a surface for storage or a hard wearing surface for an unknown activity. At some point whilst the feature was open to this level, the paving was cleared from a small patch and a pit was dug into the north-eastern corner of [1223]. This pit, [1228], was circular in shape with steep sides and a rounded base. It measured 0.90m in diameter and 1.05m deep. The cut was not dug vertically, but angled towards the north-east creating an overhang. Both pits were then backfilled with a succession of charcoal rich deposits similar to other post-demolition fills found in Structure O. Three pits, [1157], [1201] and [1212], were found in an arc around the eastern edge of the structure and are likely to represent further storage or refuse pits associated with Structure O.

Structure P [Heading Level 2] (Illus 17)

Structure P was located on the slope of the hill approximately 18.00m to the south-west of Structure O and consisted of a drip gully, a reveted stone wall and a line of post-holes forming a rectangular structure, and a number of associated pits and post-holes.

The most prominent feature of Structure P was a north-west to south-east orientated reveted stone wall [1108] (Illus 18, 19 and 20). The wall was constructed into three intercutting pits that acted as foundation cuts. The

western pit [1145] measured 1.50m x 1.40m and was 0.20m deep. The central pit [1107] measured 2.10m x 2.00m and was 0.50m deep and the eastern pit [1146] measured 1.40m x 1.20m and was 0.37m deep. The cuts were all steeply sloping on the northern edges and shallow to non-existent on the southern edges with gently rounded bases. The western [1145] and central [1107] pits possibly predate the wall itself as they were partially backfilled prior to the placing of the stones. The basal fills of these pits (1147) and (1134) consisted of dark grey-brown sandy silts with frequent charcoal and burnt daub inclusions. A significant amount of charred grain including barley was recovered from these deposits as well. It is also possible that these deposits were placed in to level and set the stones. The depth of the cuts appears to reflect the size of the stones forming the wall in order to form a level first course. As such the central pit [1107] was cut slightly deeper than the others to accommodate several large stones up to 0.50m high.

The wall itself measured approximately 4.50m long, was up to 0.40m wide and stood to a height of 0.50m. The stones appear to be locally sourced and unworked. Only a single course of stone survived, but tumbled stones relating to additional courses were visible within the deposits sealing the wall. Packing stones were also placed between the northern edge and the wall in order to keep it upright. It is likely that a south-eastern wall has been mostly truncated with only a small return visible at the eastern end of [1108].

A large post-hole [1135] was positioned on the north side of the wall, approximately half way along its length. This positioning suggests that it was contemporary with the wall, although the function remains unclear.

A line of post-holes was located 2.00m to the north-west of wall [1108] and orientated at a 90° angle. Consisting of Post-holes [1017] – [1029], they formed a line measuring 3.40m long and together with wall [1108] indicate a possible rectangular shape to Structure P. Post-holes [1037] and [1039] are likely to also relate to this rectangular structure but it is likely that truncation further down the slope has removed much of the southern wall.

Internal features consisted of four shallow ovoid pits, [1031], [1137], [1033] and [1035]. These were all shallow with rounded bases and their functions were unclear. They were mostly filled with post-use sandy silt deposits.

A narrow and shallow drip gully [1148] was located upslope of Structure P, 1.30m to the north-east and appears to be contemporary with the structure. It measured c.6.00m x 0.40m and up to a maximum of 0.08m deep.

A small number of pits were located in the immediate vicinity of Structure P and were likely associated with activity here. Two oval shaped pits, [1121] and [1160] were located downslope to the south-west. Pit [1121] measured 2.10m x 1.40m x 0.36m and had gently sloping sides and a flat base. The basal fill was a dark grey-brown sandy silt (1122), most likely formed by a slow silting up of the base whilst it was open. This was overlain at the edges by a gravel rich eroded deposit (1123). The whole pit was then backfilled with a dark grey brown sandy silt containing charcoal, organics and burnt daub. Pit [1160] measured 1.30m x 0.90m and was 0.25m deep and closely resembled Pit [1121] in shape. It was filled with a single homogenous mid grey-

brown sandy silt containing occasional charcoal and daub. Both of these pits were likely to be used for either storage or refuse.

Pit [1053] was located 0.70m to the east of Wall [1108] and measured 1.25m x 1.08m x 0.60m. The edges were near vertical and the base was flat. It was filled with a basal fill of coarse slightly silty sand that appears to have eroded in from the loose dandy edges. Onto this basal fill a number of unworked stones [1055] were placed to form a platform. The pit was sealed with a dark grey-brown sandy silt containing charcoal and burnt daub. This pit has been interpreted as a storage pit.

Features [1164], [1166], [1168] and [1170] were located approximately 7.50m to the south-east of Structure P and consisted of a number of pits and post-holes which were most likely associated with activity belonging to Structure P.

Area Q [Heading Level 2] (Illus 21)

Area Q was located between Structures O to the north and Structure P to the south and consisted of two large pits and ten post-holes and in a discreet cluster.

Pit [1244] measured 1.72m x 1.70m x 0.68m, was roughly circular in shape with steep sides and a rounded base. The fill (1245) was a brown loamy sand containing frequent large stones which were poorly sorted suggesting a rapid backfilling event.

Pit [1249] measured 1.90m x 1.50m x 0.46m, was sub-circular in shape with steep sides and a flat base. It was filled with a loose brown silty sand with abundant stones and occasional charcoal flecks. Seven sherds of lightly abraded prehistoric coarseware pottery were recovered from this fill indicating a Middle Bronze Age to Iron Age date. It is likely that this pit served as a refuse pit.

The post-holes did not appear to form a recognisable structure and most likely relate to activities associated with the nearby roundhouses.

Area R [Heading Level 2] (Illus 22)

Area R was located in the south-eastern corner of the site, approximately 20.00m south-west of Area L. The area consisted of a loose cluster of pits and post-holes.

A series of intercutting pits was located in the south-eastern corner of this area. The earliest feature appears to have been Pit [1220] which was rectangular in shape and measures 1.97m x 1.40m and 0.30m deep. The basal fill (1294) consisted of a dark grey brown sandy silt containing occasional charcoal and fired clay up to 0.10m thick. Onto this deposit a large dump of angular stones [1222] was placed into the centre of the pit (Illus 22). These stones were sealed by a further deposit of dark brown sandy silt (1221) containing charcoal and fired clay. At this point Pits [1290], [1291] and [1292] (Illus 23) were excavated through the northern end of Pit [1220]. Pit [1290] was located to the east, was rectangular in shape and measured 1.50m x 1.10m x 0.35m with steeply sloping sides and a flat base. Pit [1291] was located to the west, was sub-rectangular in shape and

measured 1.70m x 0.70m x 0.37m. The sides were very steeply sloping and the base was rounded. Pit [1292] was a shallower scoop located at the northern end of the intercutting features and measured 1.20m x 1.00m and 0.20m deep. All three pits were filled by the same homogenous silty sand and gravel deposit (1293) and the order in which they were excavated could not be ascertained. A single sherd of prehistoric coarseware pottery was recovered from this fill. The function of these intercutting pits was not discernible.

Features [1443] and [1445] were located 5.00m to the north-east of the cluster of intercutting pits.

Pit [1445] was oval in shape with vertical sides and a flat base and measured 1.10m x 0.70m and was 0.48m deep. Its basal fill was a dark grey brown sandy silt containing frequent charcoal and occasional small angular stones up to 0.25m thick. This was overlain by a lighter grey-brown sandy silt containing occasional charcoal and abundant medium to large angular stones.

Pit [1443] appeared to cut the eastern edge of [1445]. It was oval in shape with steep sides and a flat base and measured 2.10m x 1.20m x 0.36m. It was filled by a mid-grey-brown sandy silt containing abundant small to large angular stones and occasional charcoal. Some of the stones in this fill were found lying flat on the surface and appeared to have been deliberately placed to seal the pit (Illus 22).

Two large circular pits were located approximately 3.80m to the north-west of Pit [1220]. Pits [1174] and [1217] were both circular in shape and both measured 1.50m in diameter. Pit [1174] was 0.24m deep, with steeply sloping sides and a flat base. It was filled with a single homogenous grey-brown sandy silt containing occasional charcoal flecks. Pit [1217] measured 0.44m deep and also had steep sides and a flat base. The basal fill of this pit was a dark grey-brown sandy silt (1218) containing a moderate amount of charcoal. This was overlain by a mid-grey-brown sandy silt gravel deposit containing occasional charcoal flecks. Both of these pits are of an unknown date and function.

Finds Assessment [Heading Level 2]

Julie Lochrie, Julie Franklin

Introduction [Heading Level 3]

The assemblage numbered 29 sherds (199g) of pottery, 10.6kg of fired clay, 1.4kg of industrial waste as well as eight course stone finds, 22 pieces of chipped stone and three iron finds. Few finds were diagnostic of date, though those that are point to the later prehistoric period. Only one find, a piece of modern pottery, is obviously more recent. A summary of the assemblage is given below. A complete catalogue of all the finds is given at the end.

Group	Pottery (PH)		Fired Clay		Fuel Ash Slag	Ironworking Waste	Iron	Stone	Lithics	Pottery (Mod)		Dating
-	Count	Wgt	Count	Wgt	Wgt	Wgt	Count	Count	Count	Count	Wgt	-
Area L	8	49g	6	18g	14g	77g	1		3			IA
Str M			82	4,946g	101g	392g		2	3	1	17g	IA?, intru mod

Str N	8	3g	36	614g	650g	10g	1	2	1			IA?
Str O	1	<0.5g	257	4,744g	123g	19g		2	8			IA?
Str P			1	33g	3g			2	3			IA, resid EPH
Area Q	7	110g										MBA-IA
Area R	4	20g	1	1g	13g	2g	1		3			MBA-IA
U/S			15	224g					1			-
-	28	182g	398	10,580g	904g	500g	3	8	22	1	17g	-

Table 1 – Summary of assemblage by feature group

Prehistoric Pottery [Heading Level 3]

There were 28 sherds (182g) of prehistoric pottery. Sherds were typically slightly abraded and there were few diagnostic sherds, but for one flat base. It is likely that the sherds represent flat-rimmed ware, a type of pottery in use from the middle Bronze Age and throughout the Iron Age. Most of the sherds were found in pit [1249], Area Q, though several, including the only base sherd were associated with Area L, and there was a scattering of fragments in other areas.

Fired Clay [Heading Level 3]

There were 398 pieces (10.580kg) of fired clay. Many pieces were large, bearing distinct linear impressions on one side, some also showed finger marks on the other side. These appear to be the remains of wattle and daub structures. As many were well fired to an orange ceramic, it seems likely that these structures were destroyed by fire. The largest concentrations derived from Structure M (4.946kg) and Structure O (4.744kg). In both cases the majority of the finds derived from a single feature, post-hole [1079] (1080) and Ring-ditch [1126] (1125), respectively. A significant quantity was also found associated with Structure N.

Industrial Waste [Heading Level 3]

Some of the industrial waste recovered certainly represents ironworking. The most notable piece is part of a possible hearth cake (1177, Structure M) which may derive from iron smelting, though equally can be formed during smithing. Two other pieces are dense and may derive from ironworking (1259, Structure M; 1398, Structure N). These were concentrated in Structure M, the remainder in nearby Structure N. Magnetic residues found in sample retents may also derive from ironworking. These were thinly scattered across the site, the largest concentration (34g) being associated with Structure M.

The remaining pieces are all light weight vitrified fragments and may not relate to metalworking at all. These may in fact be fuel ash slag, a substance created when siliceous material is subjected to high temperatures. The burning of a wattle and daub structure creates such conditions and the slag fragments may in fact be further fragments of vitrified daub. The pieces were particularly concentrated in Structure N (650g), with further pieces in Structures M and O.

Iron [Heading Level 3]

Despite the evidence for ironworking, only three small iron finds were recovered from the excavations. These included a small round-sectioned shaft, broken at one end and pointed at the other. It may represent the end of a tooth from a heckle comb or a pointed tool of some kind. It was found associated with probable fuel ash slag

in Structure N. A small hook was found in Area L (1406) and a possible nail head in Area R (1447). None of the finds are diagnostic of date but could potentially date as early as the Iron Age.

Coarse Stone [Heading Level 3]

Eight coarse stone finds were recovered, including three querns, a possible weight and a possible whetstone. The most useful in terms of dating is part of the upper stone of a rotary disc quern, found in Structure P. This can be dated to the Iron Age. Two saddle querns found in Structure M may be earlier or contemporary with this, and can only be broadly ascribed to the prehistoric period. The querns imply general domestic settlement and food processing.

The possible whetstone was also found in Structure P. One face of the stone is worn completely flat and it has scratches on the surface of this face. Its function is not entirely clear, though clearly it has been used for grinding or rubbing of some kind. Two smaller pebbles found in Structure O also had scratches on the surface and may have been utilised for some purpose.

A large stone associated with Structure N had a hole drilled through the centre from both sides. The hole shows little sign of wear of any kind and it may have been a weight of some kind. At 1.6kg it is possibly a little heavy for a loom weight and may have been for weighting the edges of the roof. Lastly, a cobble tool seems to have been used as a pounder and polisher.

Lithics [Heading Level 3]

Only 22 chipped stone finds were recovered. The only diagnostic piece was a sub-circular scraper which can be dated to the Neolithic or early Bronze Age period. It is clearly residual, found in the same deposit (1109) as the rotary quern. The other finds are typically debitage and while they may conceivably relate to the Iron Age occupation but equally may be residual finds from earlier prehistoric activity in the area.

Modern Pottery [Heading Level 3]

One sherd (17g) of modern pottery was recovered from a post-hole within Structure M. It is of a slip-lined red earthenware, with a mottled yellow and brown glaze and is of mid to late 18th century date. It is presumable intrusive and may have been ploughed into the top of the feature.

Conclusion [Heading Level 3]

Though few finds can be dated, the mixture of late prehistoric pottery, ironworking waste, rotary and saddle querns found at the site point to an Iron Age date for the structures; though occupation may have begun sooner. The distribution of ironworking remains suggests that smithing or possibly even smelting were undertaken on site, possibly near Structure M. The considerable fire risk associated with metalworking might suggest that the metalworking was actually conducted a distance away from the round houses. Unlike at a neighbouring site, (Dalland & Cox 2014) there was no evidence of copper alloy working eg in the form of mould fragments.

The dating evidence from the finds was not refined enough to ascertain whether the different round house structures were contemporary or not. The presence of saddle querns in Structure M and a rotary quern in Structure P might suggest the former predated the latter but there was considerable overlap in the use of these different types of quern and they could as easily be contemporary.

The general lack of finds suggests the round houses were cleared out before being deliberately burnt down. The distribution of fired daub and fuel ash slag fragments suggests this may have marked the end of use of Structures M, N and O.

Recommendations for Further Work [Heading Level 3]

The most significant part of the finds assemblage is the daub. The impressions of wattle and finger marks preserved in the clay surface can give some insights into the nature of the wattling used in the structures. A more detailed study should be made of these marks. A selection of daub pieces should be illustrated in any site publication, possibly with diagrammatic reconstruction of the wattling to which they were attached.

The ironworking waste and iron finds should also be subject to specialist study to ascertain if any clues can be gleaned about the types of processes being undertaken on site, though the small size of the assemblage and lack of any in situ ironworking furnaces limits the value of this material.

The remaining finds are of limited further value in terms of dating or interpreting the site, though they add a little background colour. If the site were to be published then brief reports on the pottery and stone finds should also be included.

Radiocarbon dating is also recommended to establish the chronology of the various structures and provide a point of reference for the study of the finds.

Palaeoenvironmental Sample Assessment [Heading Level 2]

Laura Bailey and Tim Holden

Introduction

Forty one samples taken during an excavation at Portstown, Inverurie were received for environmental assessment. The site comprised several remains associated with prehistoric settlement, including three roundhouses, thought to date from the late Bronze Age to Middle Iron Age, a rectangular structure though to date to the Iron Age and numerous pits and postholes. The roundhouses contained burnt daub suggesting that they were destroyed by fire. Samples were from the fills of various pits, postholes and spreads. The aims of the assessment were to assess the presence, preservation and abundance of any environmental remains in the samples and to characterize the assemblage as far as possible.

Bulk samples were subjected to flotation and wet sieving in a Siraf-style flotation machine. The floating debris (the flot) was collected in a 250 µm sieve and, once dry, scanned using a binocular microscope. Any material remaining in the flotation tank (retent) was wet-sieved through a 1mm mesh and air-dried. All samples were scanned using a stereomicroscope at magnifications of x10 and up to x100. Identifications, where provided, were confirmed using modern reference material and seed atlases including Cappers *et al.* (2006).

Results

Results of the assessment are presented in Appendix 3, Tables 1 (Retent samples) and 2 (Flot samples). Material suitable for AMS (Accelerated Mass Spectrometry) radiocarbon dating is shown in the tables.

Wood charcoal

Wood charcoal was present in varying amounts in all deposits, ranging in quantity from rare to abundant and up to 40mm in size. Charcoal was generally well-preserved, with a minimal amount of abrasion. In some cases the charcoal was heavily fragmented. Where preservation allowed, charcoal from the flots, was categorized as either oak or non-oak (Table 1).

Several fragments of large diameter oak timber (possibly the remains of a plank or beam) with sharp fractures indicating that it had not been trampled or moved much, were present in the fill (1375) of Pit [1374]. This feature was a post-hole forming part of the post-ring in Structure N. Several small diameter, non-oak roundwood fragments were present in the fill (1229) of Post-hole [1228] and the fill (1125) of Ring-ditch [1126], both in Structure O. The recovery of burnt daub and clay, many with impressions of the wattle framework, suggests that the roundwood charcoal fragments recovered may have been the remains of wattlework from wattle and daub walls, which appear to have been spread over site, filling negative features following a conflagration event.

Hazel nutshell

A small amount of heavily fragmented hazel nutshell (*Corylus avellana*) was present in six contexts (Table 1). The largest amount (2g) was recovered from the fill (1109) of pit [1107] in Structure P. The nutshell has been weighed and is quantified in Table 1.

Cereal grain

Cereal grain was observed in 27 samples. Three types of cereal grain, oat (*Avena* sp.) hulled barley (*Hordeum vulgare*) and possible bread/ club wheat (*Triticum* c.f. *aestivo-compactum*) were identified. The cereal grain was generally unabraded and in good condition. Hulled barley was the most commonly encountered grain and was particularly abundant in deposits (1109) and (1134); in Structure P which also contained a rotary quern.

Oats were present in 13 samples in varying quantities. Unfortunately as oat chaff (florette bases) was not recovered from any of the samples it was not possible to identify to species level.

A small number of possible bread/ club wheat grains were present in the fills (1061) and (1229) of features [1060] and [1228] respectively in Structure O.

Other charred plant remains

Few 'weed seeds' were recovered from the site. 'Weed seeds' included grass seeds, Brome grass (*Bromus* sp.), knotweed (*Polygonum* sp.), fat hen (*Chenopodium* sp.), buttercup (*Ranunculus* sp.), common hemp nettle (*Galeopsis tetrahit*), cleavers (*Galium aparine*) and pale persicaria (*Persicaria lapathifolium*); all common elements in arable fields and waste places. Blinks, (*Montia fontana*) a herb common on streamsides, springs, moist pasture and arable fields (Clapham *et al* 1962), were also recovered. Several onion couch (*Arrhenatherum elatius*) rhizomes and unidentified root/rhizome fragments were identified in several contexts, including the fill (1152) of ring-ditch [1176]. Onion couch is a perennial grass, occurring as a component of agricultural fields, semi-natural grassland and in light forests within arable land (Roehrs *et al* 2012). The rhizomes are thought to indicate harvesting by uprooting.

Burnt Bone

Occasional small fragments (<1cm) of burnt bone were present in the retents of several samples (Table 1). Few identifiable elements were present as all was heavily fragmented and abraded. However a small fragment of burnt cattle radius was present in the fill (1066) of Pit [1060].

Other remains

Pottery recovered from the retents will be discussed as the subject of a separate finds report.

Conclusion

The environmental assemblage offers some insight into site economy. The cereal grain assemblage was very similar to that encountered on the neighbouring site of Boynds Farm, Inverurie (Dalland and Cox 2014). The main cultivar appears to have been hulled barley although oats and small numbers of wheat were also present. In a Scottish context barley has been a common element on settlement sites since the Neolithic period, with the hulled variety gradually replacing the naked form since the Bronze Age (Boyd 1988). The presence of oats in many of the deposits suggest that they are unlikely to be earlier than the Iron Age in date. While the wheat is undoubtedly also a cultivar, the status of the oat is less certain. It could for example have been a tolerated contaminant of the barley crop as suggested for other large grass seeds identified from the site. The cereal grain assemblage is similar to other Iron Age assemblages in Scotland (e.g. Pollock et al 1993, Banks et al 2001).

The abundance of hulled barley grain suggests that it was being stored or processed on site in reasonably large quantities. The concentration of barley in Structure P, together with the presence of rotary quern, may indicate that it was a focus for grain storage and processing. It is possible that the cereal grain was stored in this area and burnt during a conflagration event. The absence of chaff, and the low weed seed contents suggests that the cereal crop had been cleaned prior to the conflagration event.

It is likely that wild food was also collected as a small number of charred hazel nutshell fragments were present. Charred nutshells are typical of floor or hearth sweepings discarded onto fires but it is also possible that they were incidentally collected with fuelwood.

The abundance of carbonized wattle work and daub from the buildings is of particular interest. Buildings destroyed by fire are highlighted as being of particular importance and a valuable resource in the Scottish Archaeological Research Framework (ScARF). The environmental assemblage has the potential to add valuable information to the corpus of knowledge regarding Iron Age roundhouse construction. Analysis of the wood charcoal recovered from deposits associated with the various structures would provide information on the material used for construction, and, together with a study of the daub, information on the nature of construction.

Recommendations for Further Work [Heading Level 3]

Full processing of the remaining samples, particularly those associated with the roundhouses and containing abundant daub, would provide further information on the nature and use of the structure.

Charcoal analysis of material associated with deposits from which large numbers of daub were recovered, Structures M, N and O, in particular, would provide information on structural material used, and may provide evidence on woodworking techniques if toolmarks are visible. The diameters of the roundwood should be measured, which would allow comparison with contemporary sites with a similar degree of structural survival.

The charcoal assemblage from the structures could be compared with wood from hearths and areas of possible industrial activity to establish if species were deliberately selected for fuel wood.

Analysis would benefit from more spatial information which would require all of the charred plant remains information (including charcoal) within Tables 1 and 2 (Appendix 2) to be plotted on to distribution maps for the site. This will then give precise distribution of charred cereals, charcoal and nutshell across the site, which will aid in determining concentrations of environmental material and highlight clusters of taxa. These plans will also help to illustrate the relationship between the environmental remains and the different foci of activity at the site (e.g. settlement and industry) and if combined with the environmental information from Boynds farm would provide information on the wider landscape.

The majority of samples contained sufficient material for radiocarbon dating and could be combined with the existing dates to further refine the chronology of the site if required.

Radiocarbon Dates [Heading Level 2]

Calibrated using Oxford Radiocarbon Accelerator Unit calibration programme OxCal v4.1.7 and the IntCal 09 calibration curve.

Feature	Context	Lab code	Material	Uncalibrated	Calibrated 1-sigma	Calibrated 2-sigma	$\delta^{13}\text{C}$
Structure M, Ditch [1176]	1260	SUERC- 60838 (GU37707)	Charcoal : <i>Corylus avellana</i>	1924±29 BP	91-124 cal AD	133 cal AD	27.2
Structure P, Pit [1107]	1134	SUERC- 60834 (GU37706)	Cereal grain: <i>Hordeum vulgare</i>	1171±26 BP	793-892 cal AD	901-952 cal AD	24.4

DISCUSSION [Heading Level 1]

The excavation revealed significant remains associated with prehistoric settlement including four structures, numerous pits and evidence for metal working. The results will now be discussed with particular reference to the neighbouring, and presumably associated, site of Boynds Farm (Dalland and Cox 2014) as well as with other pertinent examples.

Structures [Heading Level 2]

A total of four structures were identified during the excavation. Three of these have been identified as roundhouses (Structures M-O). Out of these, two (Structure M and O) were defined by ring-ditches with inner post-rings. Structure N was defined as a post-ring structure with no associated ring-ditch. All three roundhouses occupied positions in a line along the crest of the slope. Structure P was located further down the

slope in the south-western corner of the site and was defined by a reveted stone wall set at a right angle to a post alignment.

Roundhouses [Heading Level 3]

Ring Ditches and Post-Rings

In structures M and O, stone paving was set into the ditches, both of which enclosed the eastern arc of the structures and were 2.50m to 3.50m wide and 0.10m to 0.20 m deep. Neither ring ditch was well defined in terms of its excavated shape or depth. Both may represent eroded depressions related to activities that were later paved over, or deliberately shallow and irregular cuts to provide a level setting for the paving. Sections of collapsed wattle and turf were also recorded along the outer edge of both of these ditches. Complete double post-rings were present within both structures with a more tenuous outer post-ring suggested for Structure M.

The outer diameters of structures M and O were estimated at between 13.00m and 14.00m, being measured from the outer edge of the ring ditch. The diameter of the post-ring that defined Structure N was approximately 8.00m. This closely matches structures D and I from the Boynds Farm excavation to the east which were almost identical in size; 7.7m and 8m in diameter respectively. An estimate of the overall structure size for a post-ring of 8.00m can be made based on Hill's (1984) ratio of optimal placing of post-rings to support roof timbers. His ratio of 1:0.707 would give a rough diameter of 12.00m. Comparisons of Hill's ratio to actual data sets (Pope 2007) has suggested however that post-rings were often placed to maximise requirements for space in the periphery of the building. A best-fit ratio of 1:0.615 was derived from hundreds of actual examples and this would produce an estimated diameter of closer to 13.00m. All three roundhouses on site therefore were potentially of a very similar size.

The double post-rings present in Structures M and O might represent separate phases of roof supports, where one set of posts have worn out and been entirely replaced. However given the evidence for ad-hoc replacement of posts in both Structures M and O it is more likely that these were entirely separate but contemporary post rings, either to add extra support to a substantial roof or to form the basis for an upper floor.

Entrances

The entrances into Structures M and O appear to have been from the south-west, while the entrance to Structure N indicated an entrance from the north-east. Post-holes relating to possible porches were noted in all three cases. The porches in Structures M and N appear to spring from the post-rings and were defined by corner posts which were of a substantial size in the case of Structure M. The possible porch in Structure O was poorly defined in comparison but could be explained by the topography of the site as the land slopes away to the south-west here and post-holes may have been set at a shallower depth as a result. In all cases porches appear to extend approximately 2.00m to 3.00m and entrances were also roughly 2.00m to 3.00m wide.

Entrance styles and orientations have been the subject of much discussion and variations have been explained by theories that range from chronological change to differences in the function of the building or the status of the occupier. The substantial post-holes related to the porch of Structure M might suggest that the posts were larger than was functionally necessary to support the roof. The entrance orientations also differ from the

majority of those found at Boynds Farm to the east where entrances were largely orientated to the south-east, with only Structure E sharing a south-western orientation with Structures M and O from this site (Dalland and Cox 2014).

Internal Features and Hearths and Site Activities

Hearth locations were uncovered in both Structure M and O. In both cases the actual features were heavily truncated and their locations were marked by in-situ heat effected soil. The hearths were slightly offset to the south-west from the centre of the structures. No hearth location was discernible in Structure N but this may be due to the generally shallow nature of hearths and the level of truncation in the structure.

Although occupational surfaces in all three roundhouses were truncated away, some internal features are suggestive of functions and activities. Internal partitions were hinted at in Structure N and also Structure O. These may have served to separate off different activity areas within the structures or served as byres for animals. The large and deep pits within the interior of Structure O may well have been used for storage or other activities taking place within the structure.

Iron working slag was recovered from much of the site, including a possible hearth cake from Structure M. This suggests that at least smithing and possibly smelting activities were taking place associated with these roundhouses.

Abandonment and Destruction

As discussed in the finds assessment above, a large assemblage of burnt daub and vitrified slag was recovered from the three roundhouses. Coupled with the fact that very few other finds were recovered from this site, compared to nearly 400 sherds of pottery from the neighbouring Boynds Farm excavation, it is likely that the structures were cleared prior to being deliberately destroyed by fire. This is a common occurrence in the archaeological record and was noted at the site of Gairnhill Wood, Aberdeen (Headland Archaeology forthcoming) where extensive remains of carbonised wattle and posts were found from a total of six roundhouses dated to between the Middle Bronze Age and the Early Iron Age.

Structure P [Heading Level 3]

Structure P was located towards the south-western end of the site, formed by a rectangular structure measuring approximately 6.50m x 3.00m with an associated curvilinear drip gully. The angular shape to the structure and its reveted stone wall are suggestive of a souterrain. The shallow depth of the pits into which the reveted wall was set however would suggest that this structure was only partly subterranean and would have been mostly above ground. This is similar to Structures F and G from the Boynds Farm excavation where the depths of the features were no greater than 0.50m (Dalland and Cox 2014).

The large amount of charred grain recovered from deposits in Structure P might hint at another function for the building. Along with the fragment of rotary quern it is possible that this provides evidence for small scale grain processing in this structure.

The fragment of rotary quern recovered from Structure P suggests a later Iron Age date for this structure and is supported by the associated radiocarbon date of 901-952 cal AD. This fits with the overall picture of Late Bronze Age to Iron Age activity on this site.

Summary and Chronology

The three roundhouses at Portstown were very similar to one another and generally distinct from those at the adjacent Boynds Farm site. The exception to this is Structure N that closely resembles the Boynds Farm Structures B, D and I in terms of size and construction. The roundhouses can be compared to those excavated at Forest Road, Kintore in 2000 (Cook & Dunbar 2008); some 7km to the south. That excavation covered an area of 8.75ha and discovered approximately 30 round-houses. Cook and Dunbar categorised the roundhouses based on the form of the roundhouses found there and in the near vicinity. They were able to identify six different types (Illus 25) that included post-rings with and without porches as well as ring-ditches with and without associated post-rings.

Using this typology, Structures M and O at Portstown closely resemble Type 2a which were primarily found to date from the Late Bronze Age through to the Middle Iron Age. This is supported by a radiocarbon date of 133 cal AD for Structure M. Structure N would seem to fit closer with Type 5, which also date to these periods. As such there is no evidence to suggest that these three roundhouses could not have been contemporary. Indeed their regular spacing suggests as much, as some degree of overlap might be expected if significant time spans separated them. The similarity in demolition deposits across the site is also suggestive of the three buildings being closed at the same time.

Structure P represents the latest activity known thus far on the site. It dates to the end of the Iron Age and was utilised approximately 800 years after roundhouse Structure M. Its rectangular form immediately differentiated it from the circular structures on site and as suggested above may have been an ancillary building associated with grain processing.

CONCLUSION [Heading Level 1]

The excavations at Portstown make an important addition to the archaeological record of Aberdeenshire and in particular roundhouse sites. The recovered data set will allow for further detailed analysis to better refine our understanding of structural and economic developments on such sites across time. In conjunction with the neighbouring Boynds Farm site, there is the opportunity to examine settlement changes at a settlement location spanning the Neolithic to Late Iron Age.

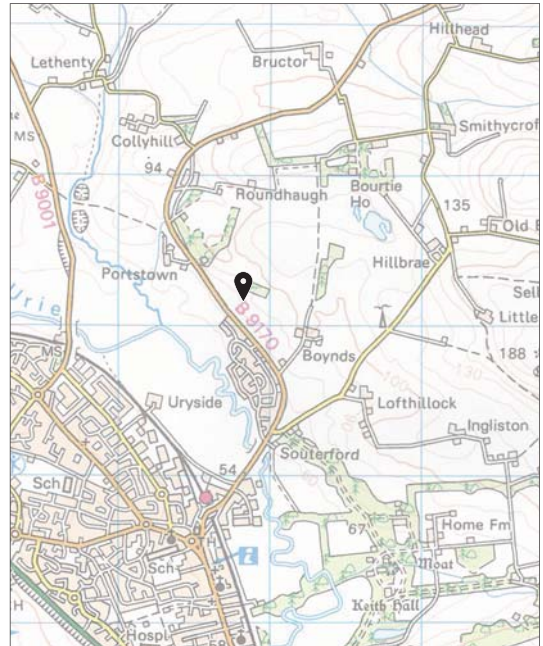
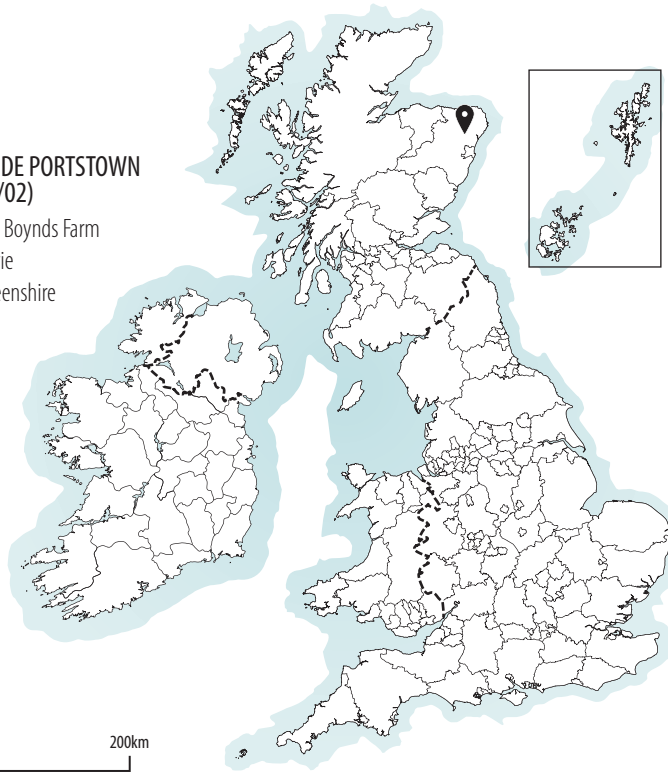
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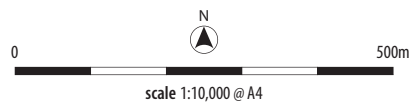
**URYSIDE PORTSTOWN
(PTIA/02)**

land at Boynds Farm
Inverurie
Aberdeenshire



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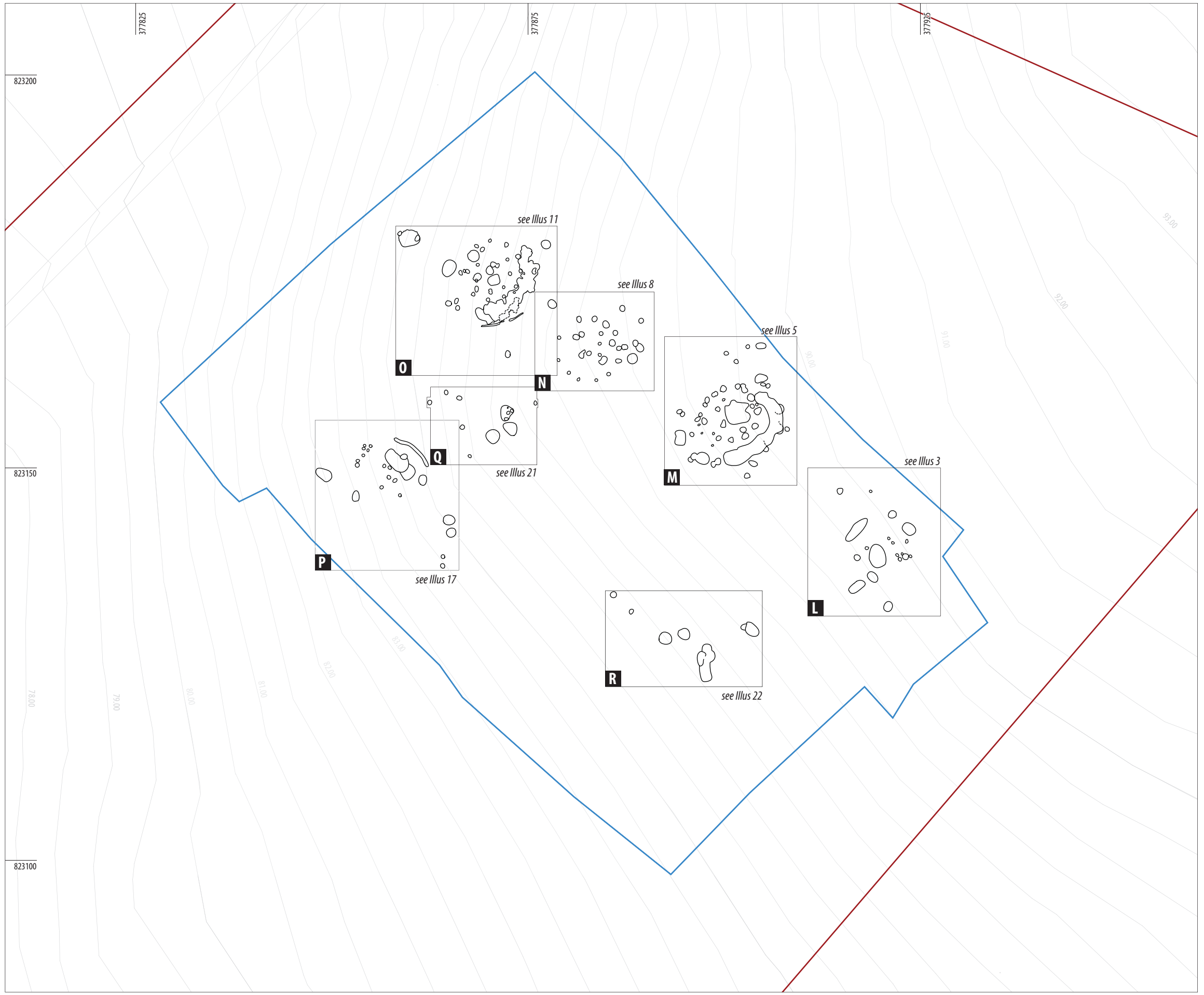
- KEY**
- development boundary
 - site boundary



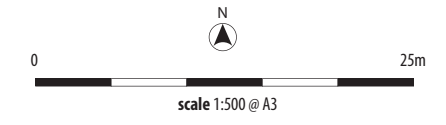
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0131 467 7705
www.headlandarchaeology.com

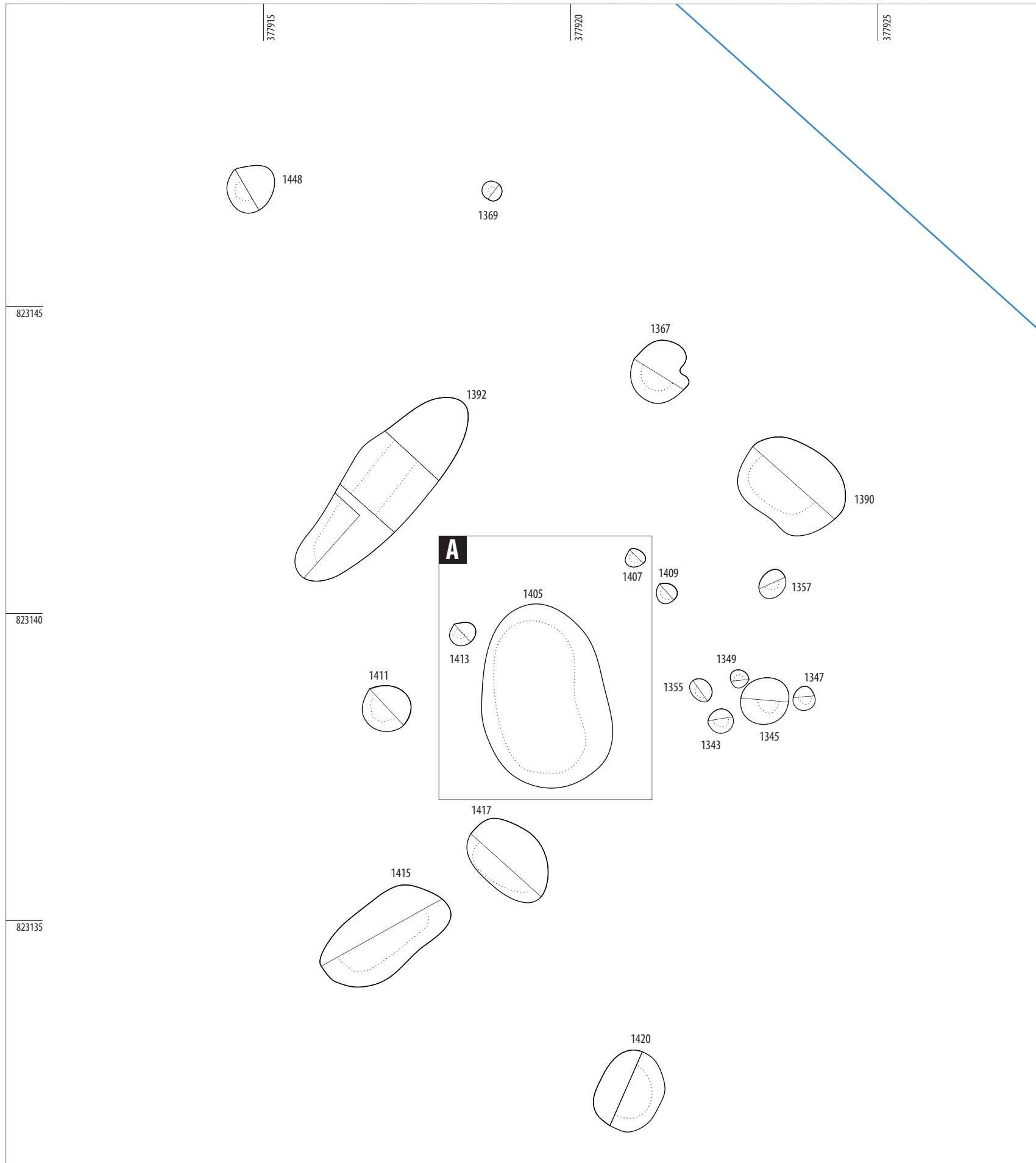
ILLUS 1
Site location



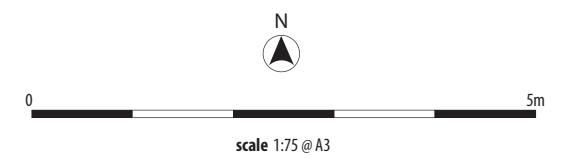
- KEY
- ▭ development boundary
 - ▭ site boundary
 - archaeological features
 - abutted contexts



ILLUS 2
Site plan



KEY
 site boundary

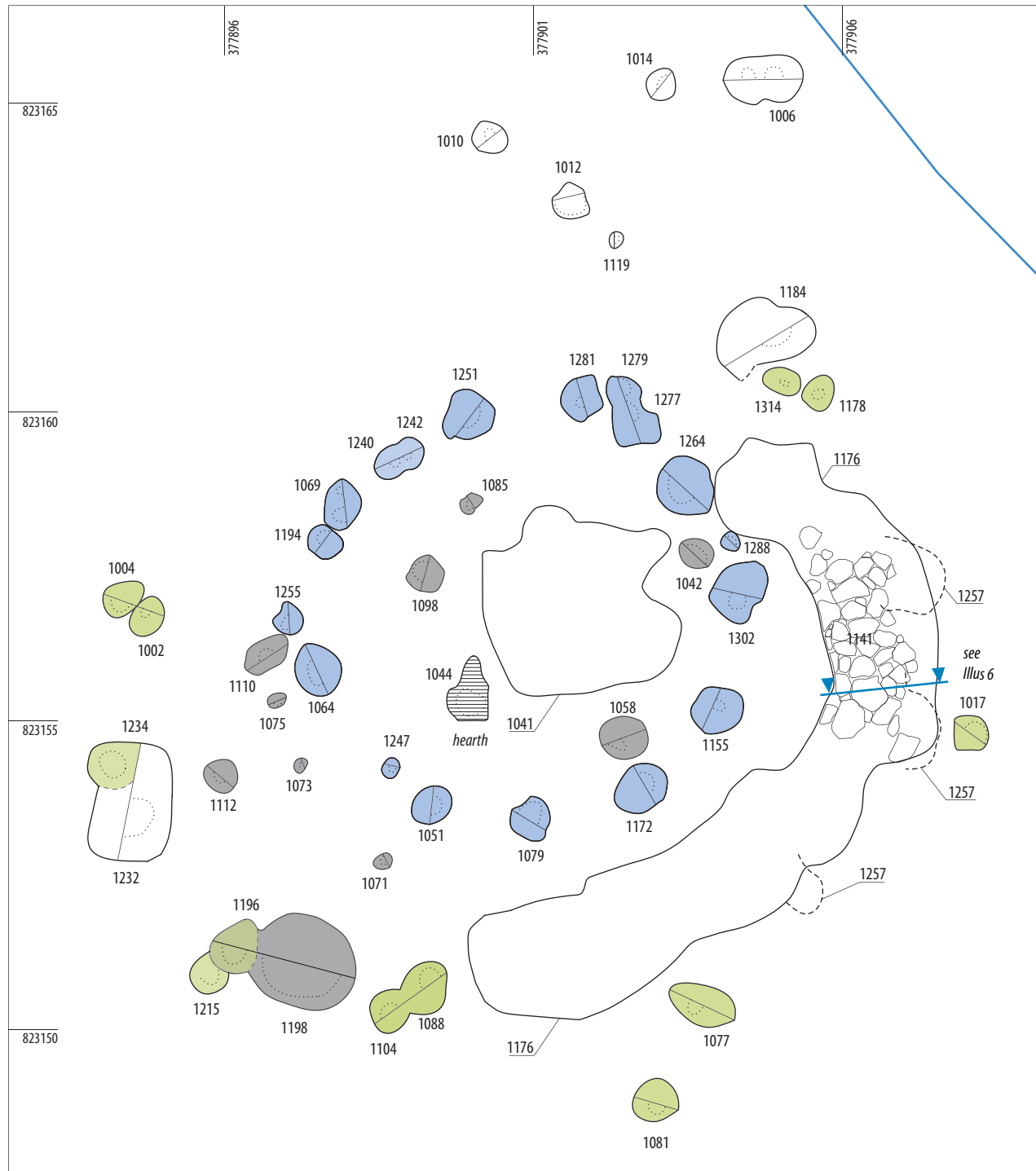


ILLUS 3
 Plan of Area L

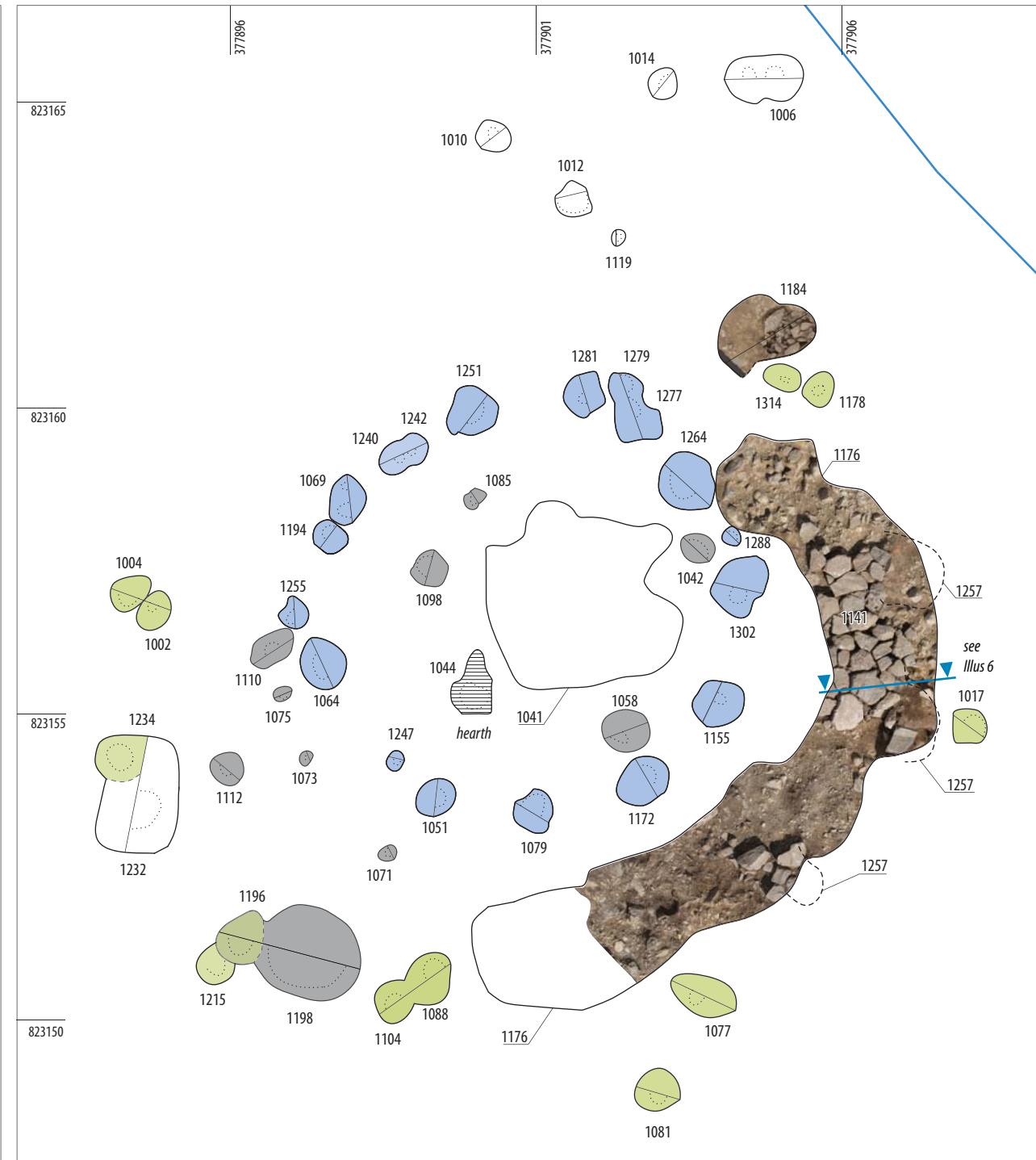


ILLUS 4

E facing shot of pit [1405] with baulk

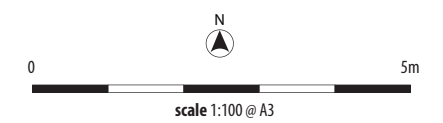


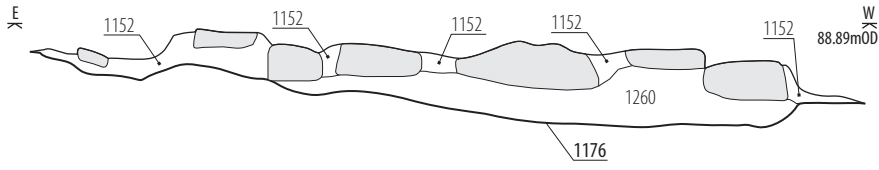
M PLAN



M ORTHOPHOTO

- KEY
- site boundary
 - outer post arc
 - inner post ring
 - porch and interior features
 - overlying contexts





1141, stones

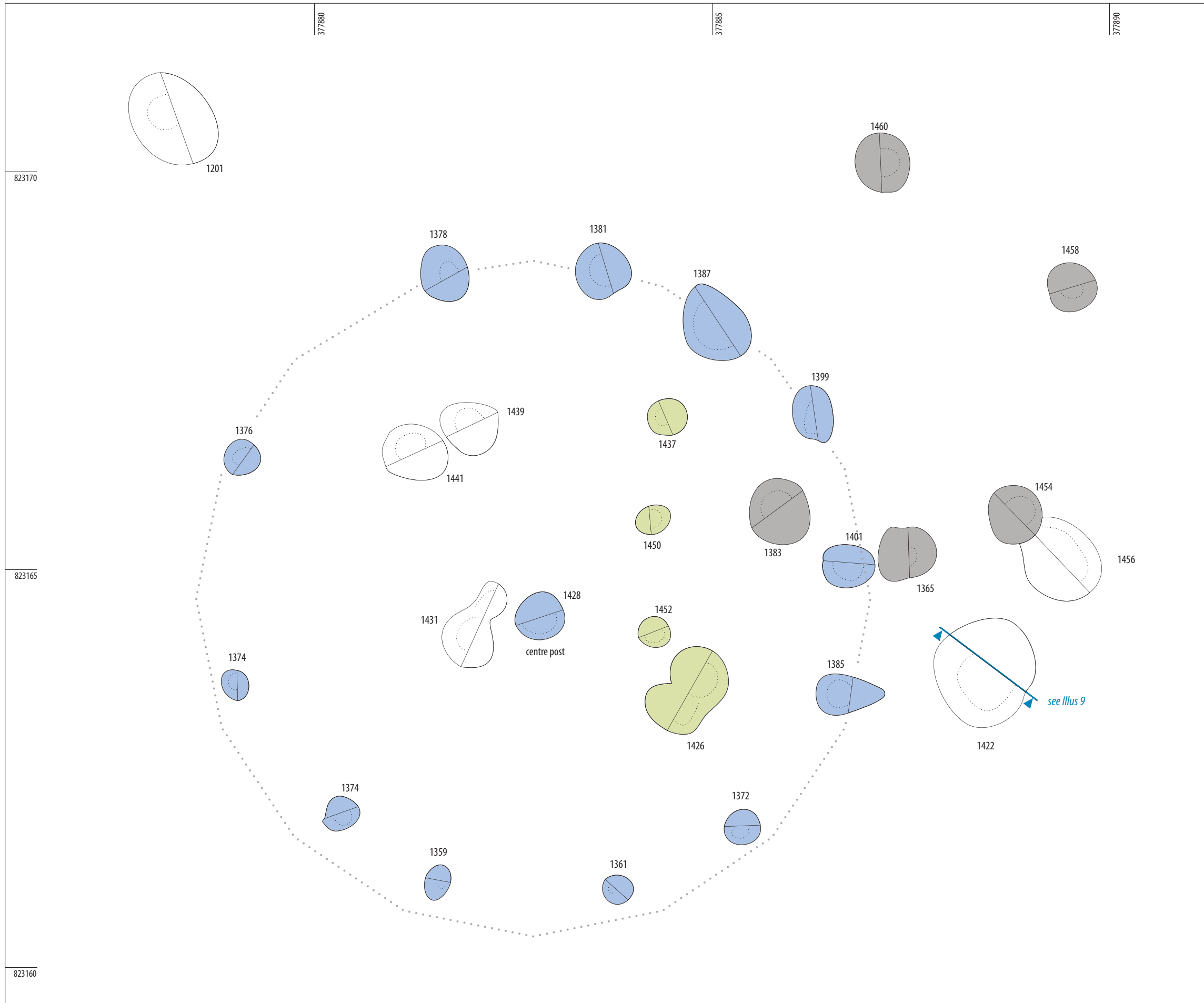


ILLUS 6
N facing section through curvilinear [1176]

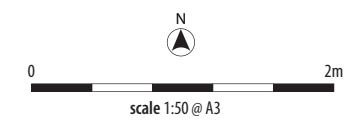


ILLUS 7

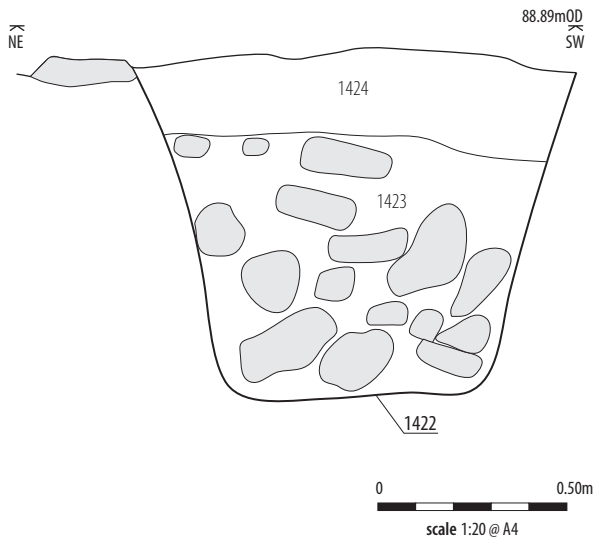
Post-excavation shot of Structure M looking S



KEY
 [blue square] post-ring
 [green square] internal partition
 [grey square] porch



ILLUS 8
 Plan of Structure N

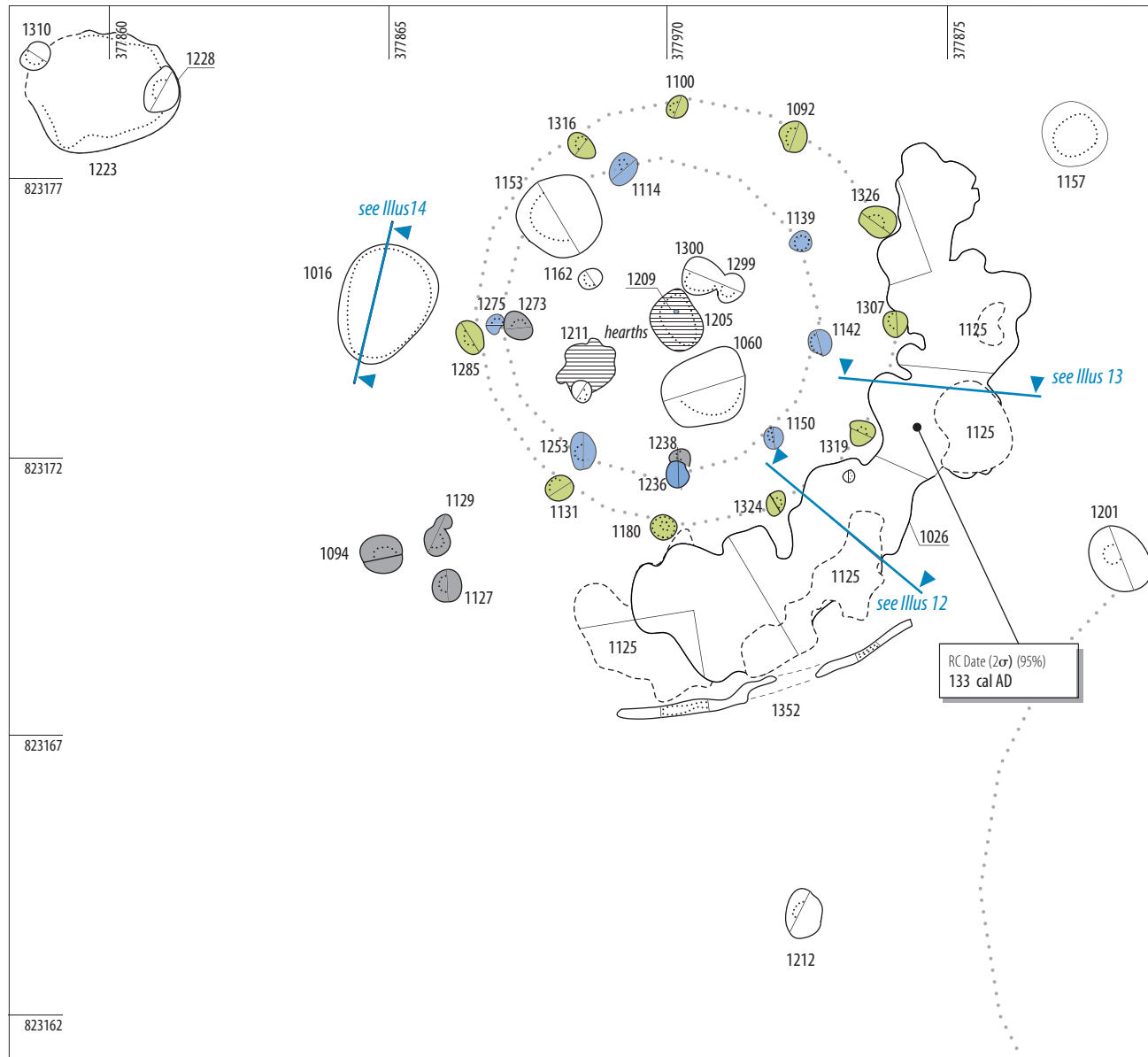


ILLUS 9
SW facing section through Pit [1422]

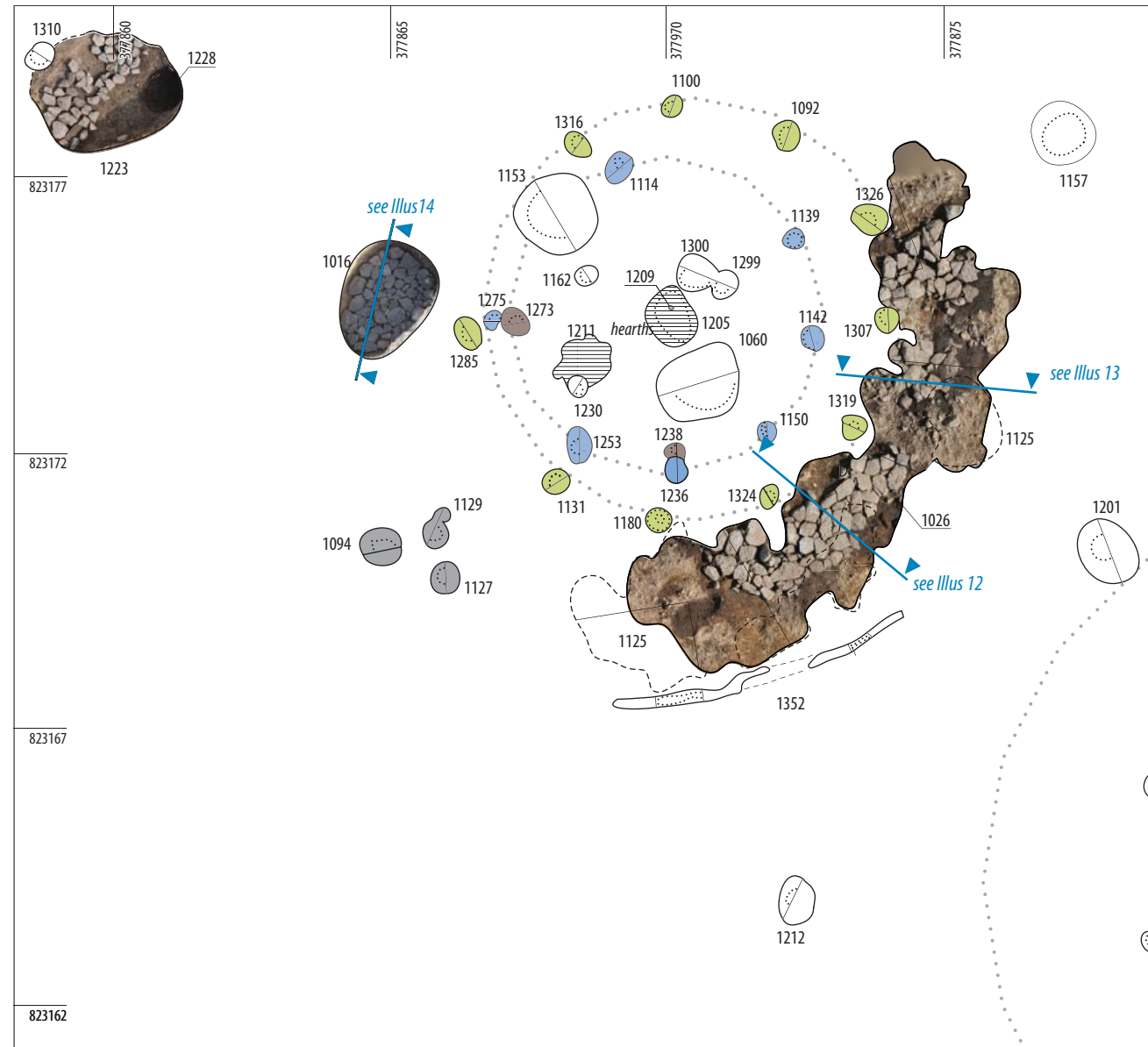


ILLUS 10

Working shot of Structure N



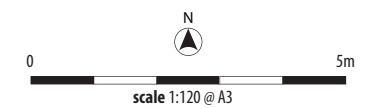
O PLAN

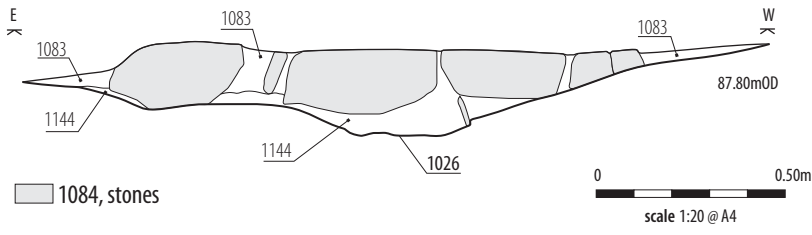


O ORTHOPHOTO

KEY

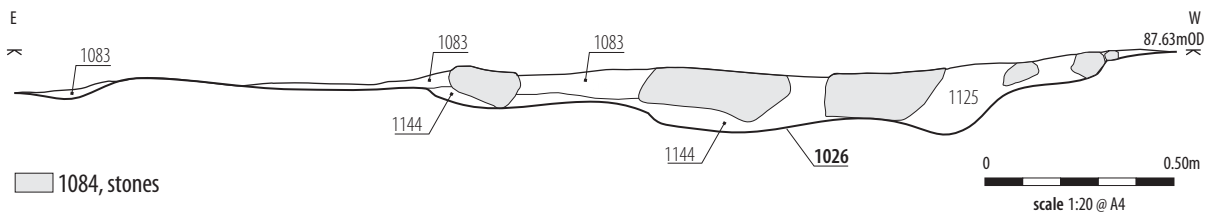
- outer post ring
- inne post ring
- possible porch
- overlying contexts



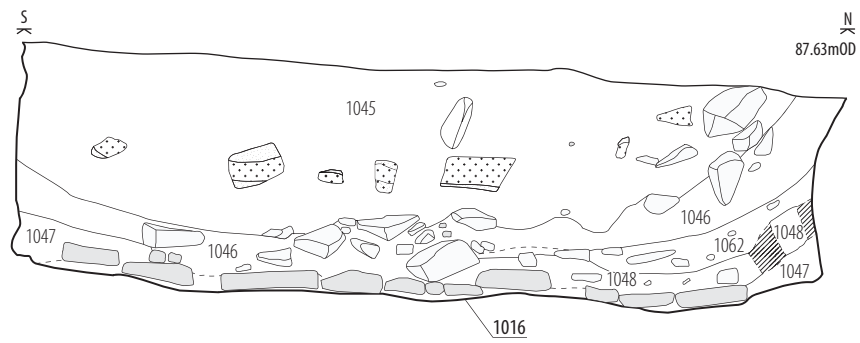






ILLUS 12

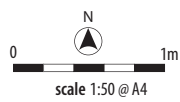
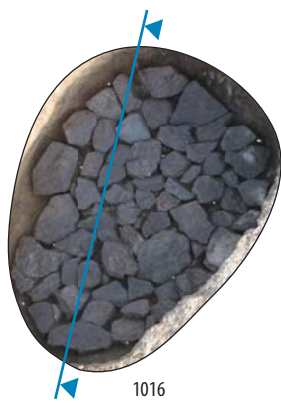
S facing section through curvilinear [1026]



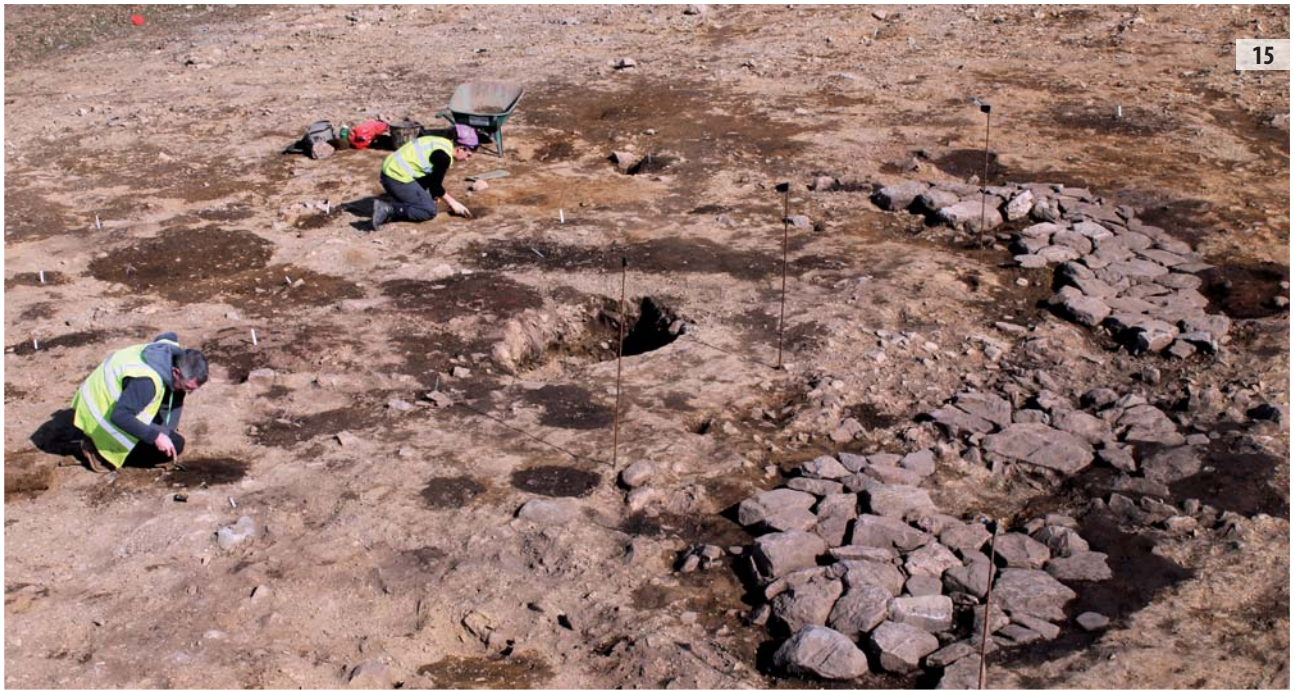
ILLUS 13
SW facing section through curvilinear [1026]



- KEY**
-  bioturbation
 -  heat-affected clay
 -  charcoal
 -  1049, stones at base of 1016



ILLUS 14
West facing section and plan shot of pit [1016]

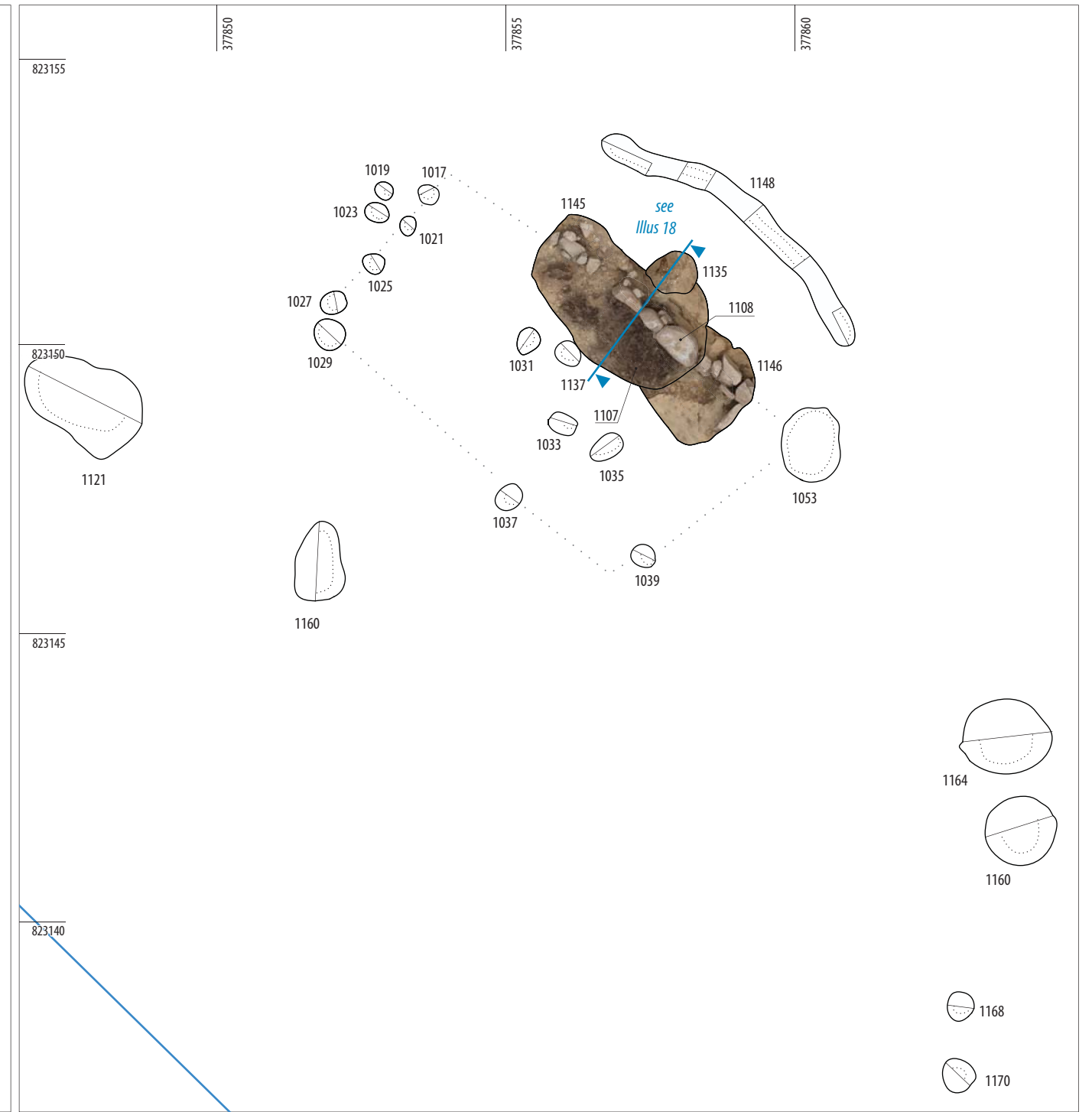
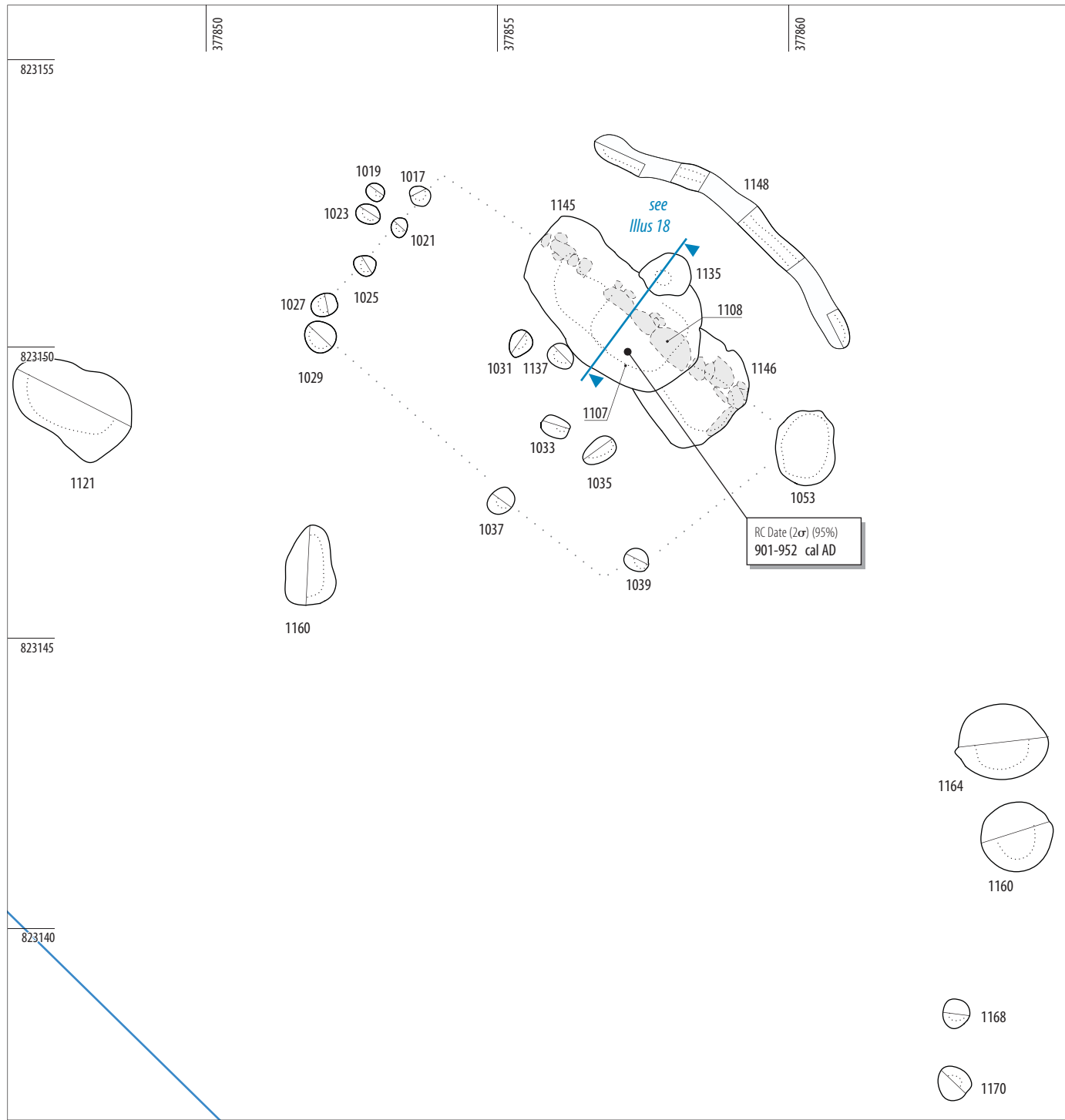


ILLUS 15

Working shot of Structure 0

ILLUS 16

Oblique shot of Pits [1223] and [1225] mid excavation

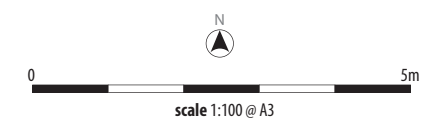


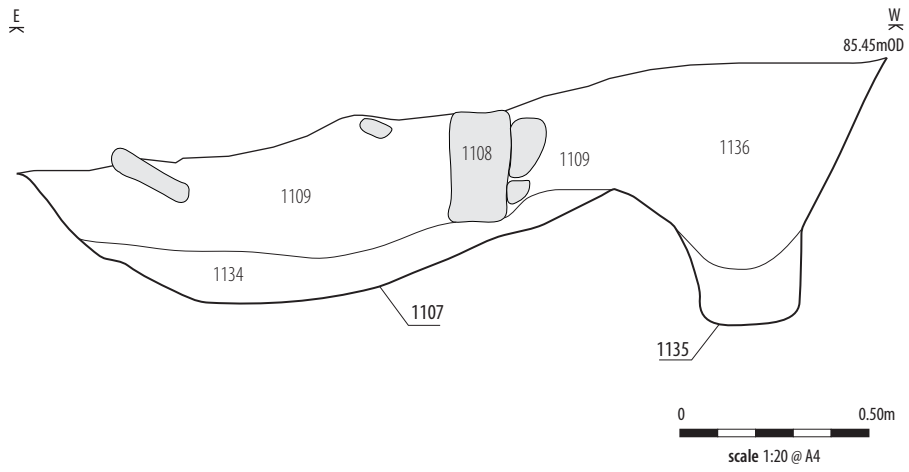
P PLAN

P ORTHOPHOTO

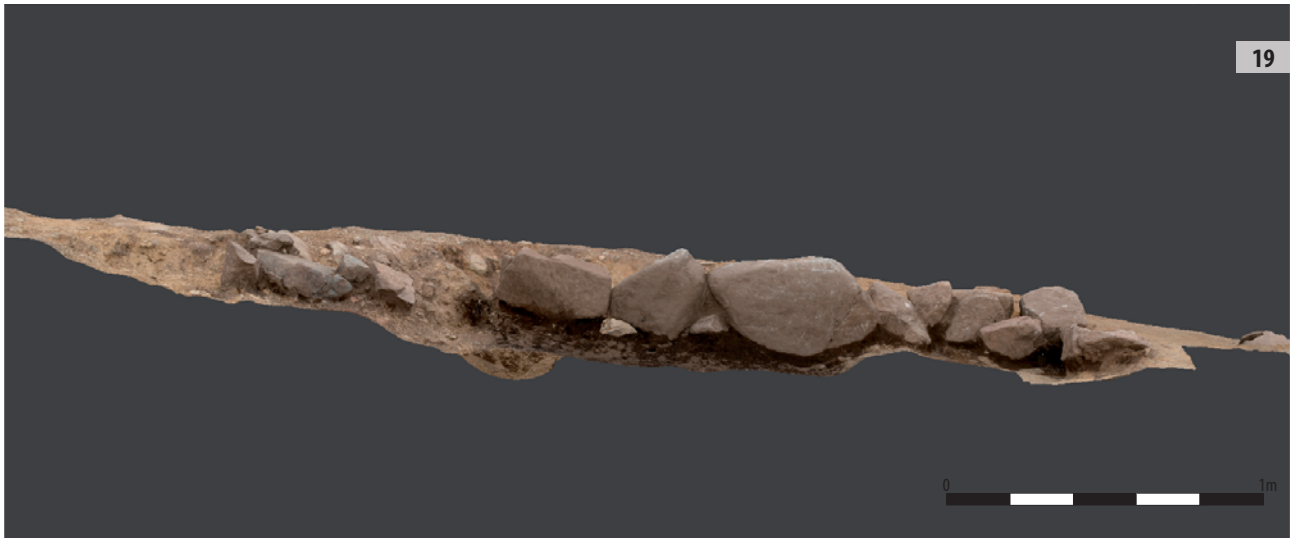
KEY

□ site boundary



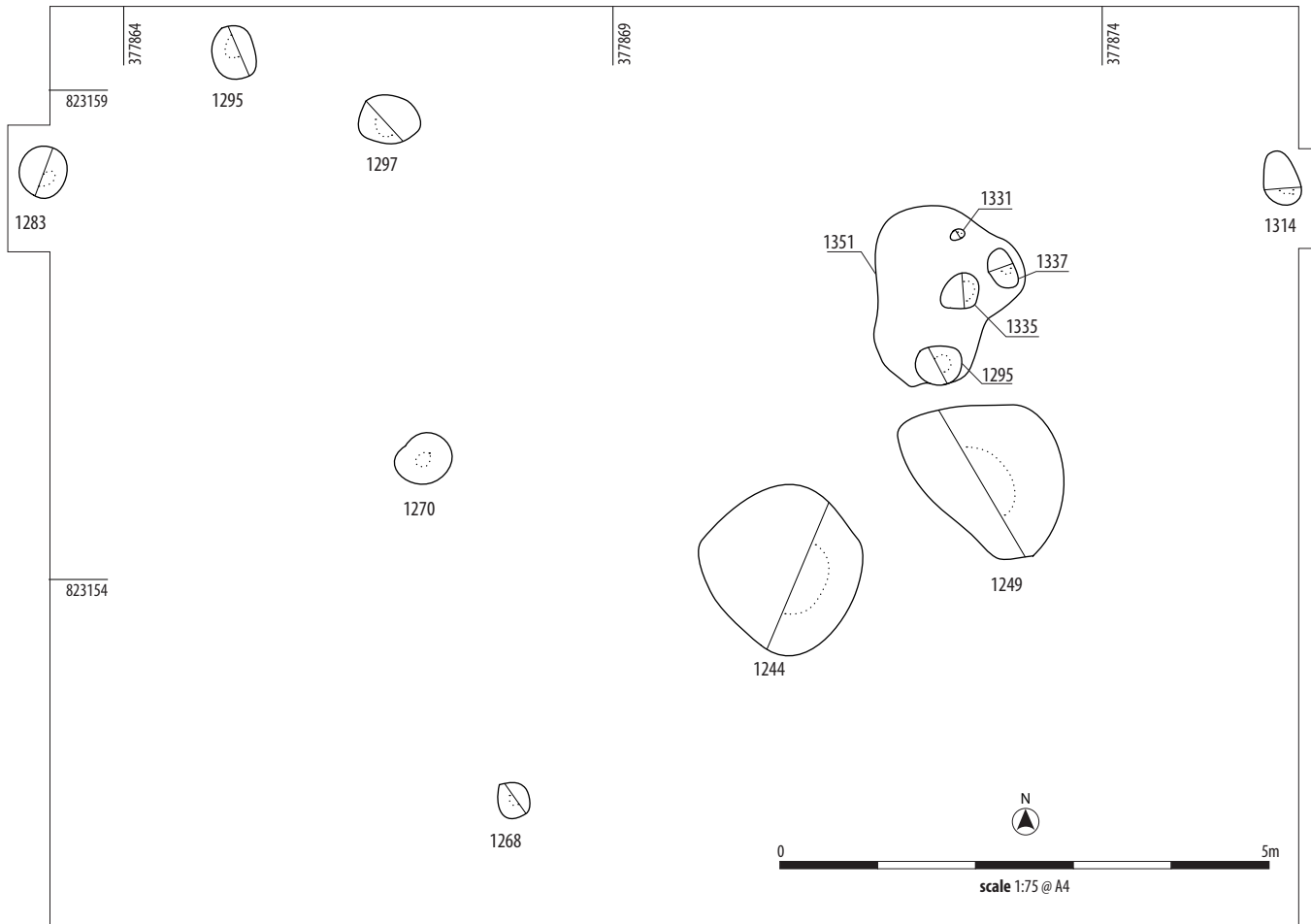


ILLUS 18
SE facing section through structure P, Pit [1107] and Post-hole [1135] showing wall [1108]

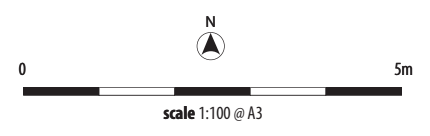
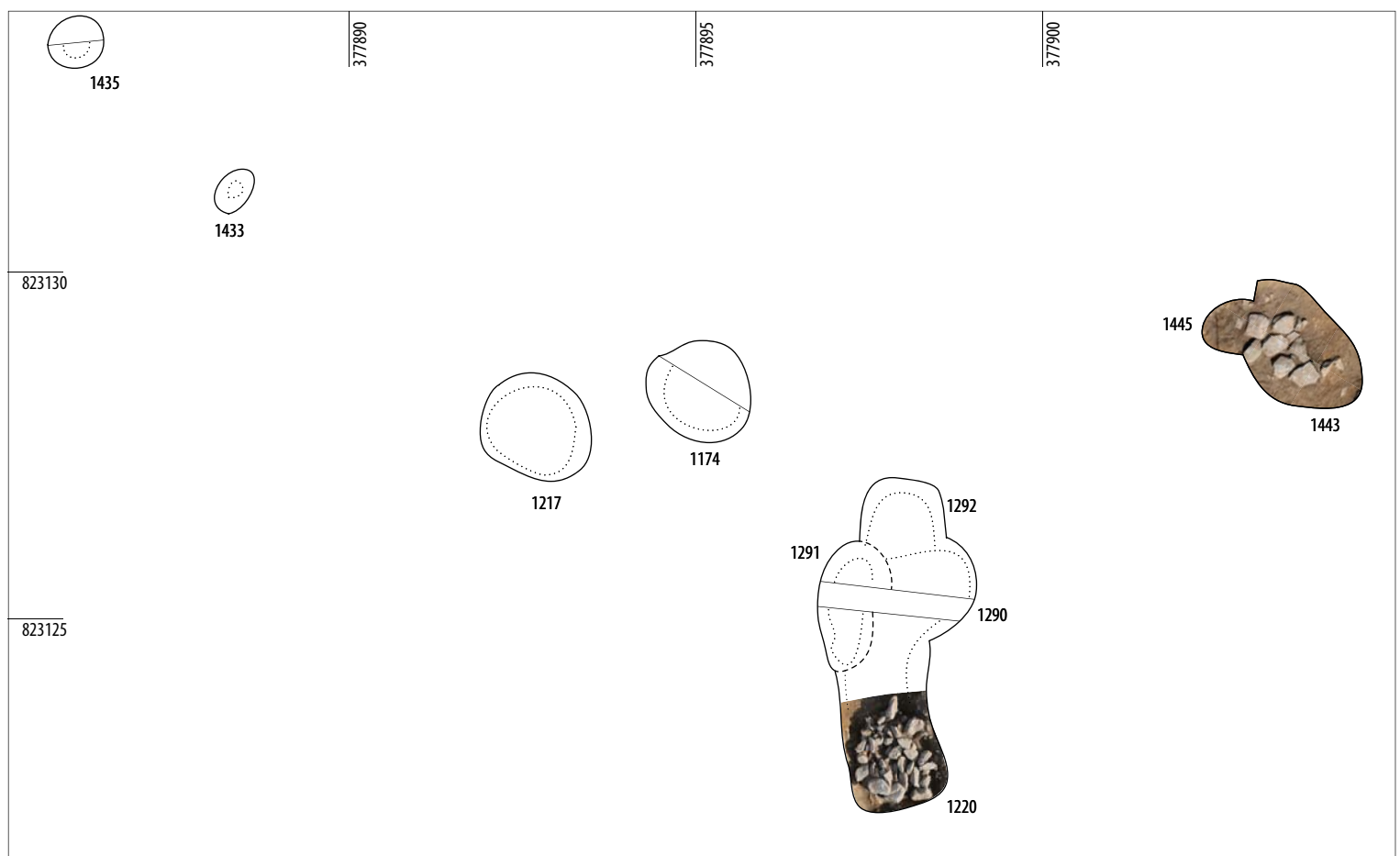
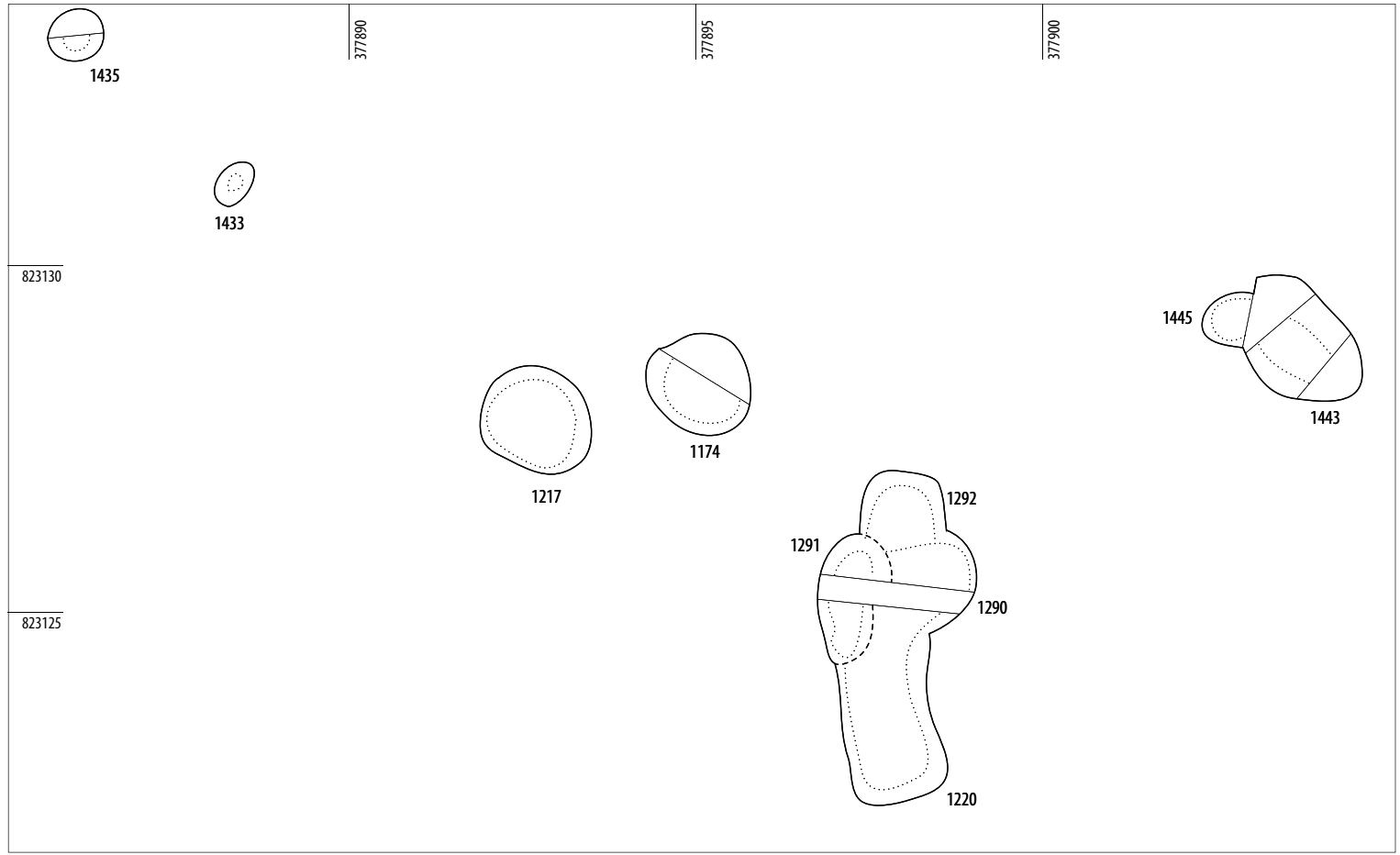


ILLUS 19
SW facing elevation of Wall [1108]

ILLUS 20
3D model of Wall [1108]



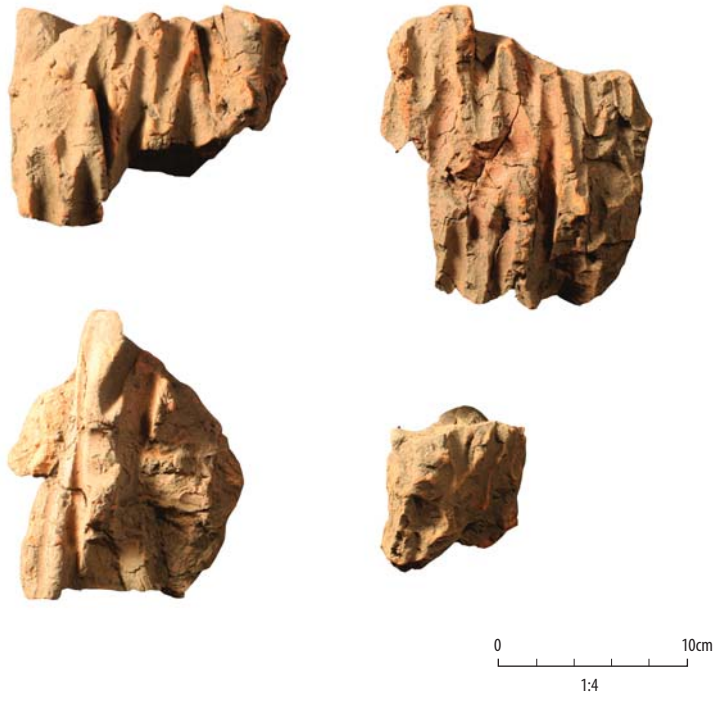
ILLUS 21
Plan of Area Q



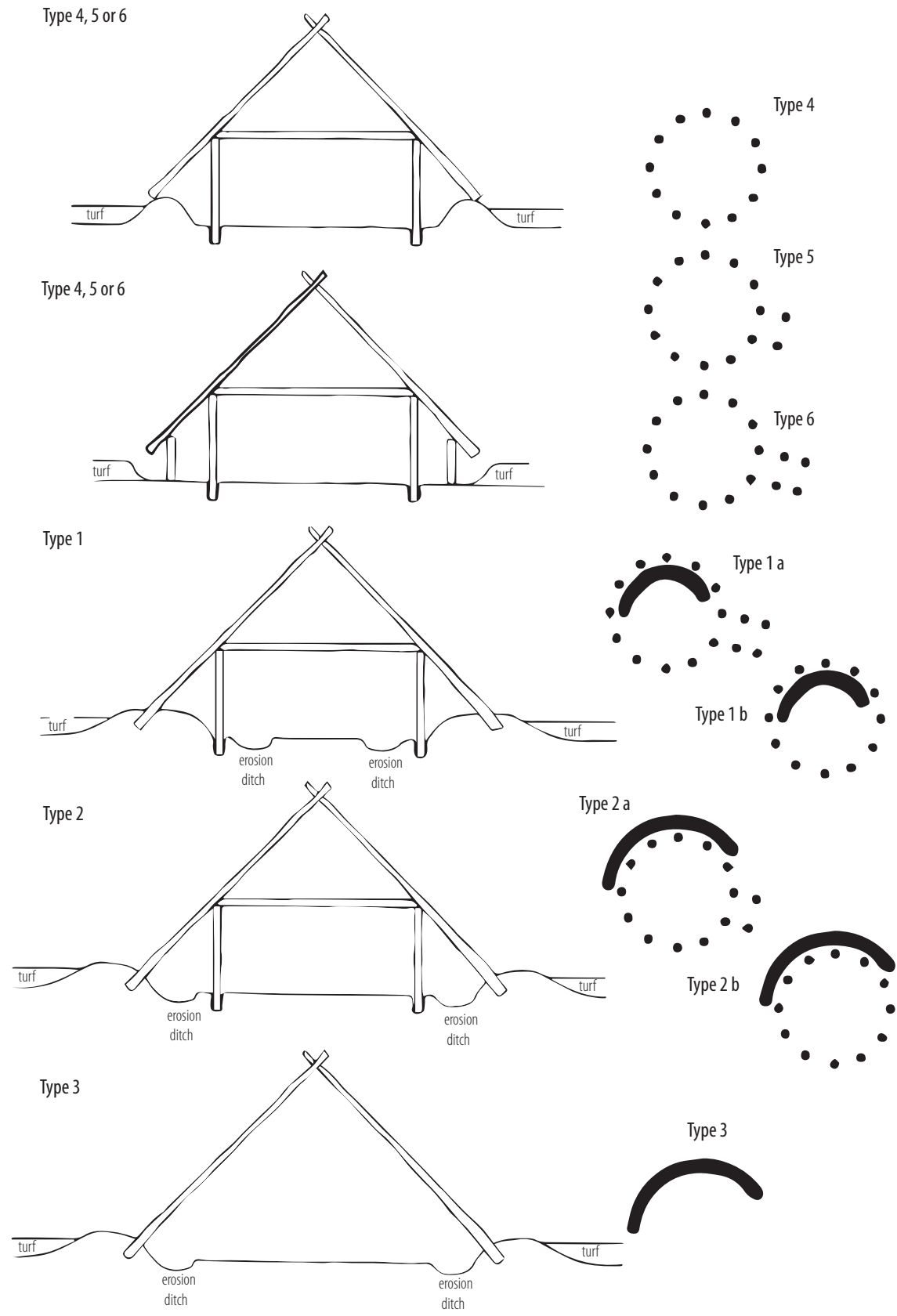


ILLUS 23

N facing section through Pits [1290] and [1291]



ILLUS 24
Samples of retrieved daub



ILLUS 25
 Evolution of roundhouse architecture at Kintore (after Cook, M.; Dunbar, L., 2008)