



Tremough Innovation Centre archaeological mitigation recording: Archive Report



Historic Environment Projects

Tremough Innovation Centre archaeological mitigation recording: Archive Report

Client	Leadbitters
Report Number	2011R076
Date	June 2011
Status	Final
Report author	James Gossip
Checked by	Andy Jones
Approved by	Peter Rose

Historic Environment, Cornwall Council

Kennall Building, Old County Hall, Station Road, Truro, Cornwall, TR1 3AY

tel (01872) 323603 fax (01872) 323811 E-mail hes@cornwall.gov.uk

www.cornwall.gov.uk

Acknowledgements

This project was commissioned by the Leadbitters and carried out by Historic Environment Projects, Cornwall Council.

The Project Manager was Andy Jones.

The excavation team comprised James Gossip (Project Officer) and Francis Shepherd.

Thanks to Fred Champion Groundworkers for the help and cooperation during the monitoring of topsoil stripping.

The views and recommendations expressed in this report are those of Historic Environment Projects and are presented in good faith on the basis of professional judgement and on information currently available.

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Cover illustration

A Gwithian style vessel being excavated from pit [110]

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Abbreviations

HER	Cornwall and the Isles of Scilly Historic Environment Record
HE	Historic Environment, Cornwall Council
NGR	National Grid Reference
OS	Ordnance Survey
RCM	Royal Cornwall Museum

1 Summary

Archaeological monitoring of topsoil stripping by Historic Environment Projects in advance of the construction of the Tremough Innovation Centre, Penryn, Cornwall, revealed a sub-rectangular post-built structure of post-Roman/early medieval date. The site was notable for containing three ceramic ware types: Bar Lug, Grass-Marked and a complete vessel of Gwithian Style deposited in an old posthole. These pottery forms are poorly dated and very unusual in stratified deposits. Dating of these ceramics will add important information to the study of post-Roman settlement in Cornwall.

2 Introduction

2.1 Project background

During October and November 2010 Cornwall Council's Historic Environment (HE) Projects team were commissioned by Mr Paul Nash on behalf of Leadbitters to undertake a programme of archaeological recording in advance of the construction of the Technology Innovation Centre, Tremough Campus, Penryn. The work was guided by a written scheme of investigation prepared by HE (Section 11; Jones 2010) which had been prepared following consultation with Phil Markham (Historic Environment Advice Officer, Cornwall Council) on the requirements for archaeological recording. The work was commissioned in order to fulfil a PPG16 planning condition for the development (Planning Application No. PA08 01370 FM).

The development area covers an area of approximately 1.3 HA (Fig 1). A recent geophysical survey of this area (Archaeological Surveys, Ltd 2008) identified a number of anomalies and previous geophysical surveys, archaeological assessments and fieldwork by HE Projects in the adjacent area have led to the identification of significant prehistoric and Romano-British remains, including Late Neolithic pits containing Grooved Ware, Bronze Age post-rings and Romano-British settlements and field systems (Gossip and Jones 2007) (Fig 2). It was thought probable that similar remains could be located within the TIC foot-print.

2.2 Aims

The purpose of the archaeological excavation was to determine the character and significance of the below ground archaeology, principally the post-built structure identified during topsoil stripping. The aims of the excavation were:

2.2.1

- To accurately locate the structure and tie it into the Ordnance Survey mapping.
- To identify and describe the archaeological features.
- To record in detail the stratigraphical relationships.
- To recover artefacts from all archaeological deposits and features.
- To retrieve environmental and scientific dating evidence from all archaeological deposits and features.
- To increase our understanding of post-Roman/early medieval settlement in Cornwall.
- To record archaeological features in such a way to enable specialist analysis, interpretation, reconstruction and ultimately publication in an appropriate academic journal.
- To disseminate the results of the excavation appropriately.

2.2.2 Research Objectives

The primary objective was to provide evidence for the character, potential and significance of the archaeological resource in an area of lowland Cornwall.

2.2.3 Objectives of this report

This report provides an archive summary in order to aid specialists in assessment and analysis of datasets collected during fieldwork.

The report includes a selection of key site drawings which will assist specialists in understanding the phasing and layout of the sites.

This report sets out recommendations for assessment, analysis and publication.

2.3 Methods

2.3.1 Fieldwork

All deposits were recorded in accordance with Historic Environment guidelines and in accordance with the Institute for Archaeologists' Standards and Code of Conduct (see below). Plans were drawn of each stratigraphically important level including the surface remains immediately following clean-up after topsoil stripping and postholes cut into the natural subsoil. Section drawings or profiles were made of each feature to record the stratigraphic make-up within the structure.

Adjacent areas surrounding the structure were also cleaned and excavated.

Recording - general

- The topsoil was stripped to the level of the archaeology (the uppermost exposed sections of the structure and surrounding features) by mechanical excavator fitted with a toothless bucket, and then hand cleaned.
- An excavation grid was established and surveyed by Total Station EDM. The positions of the grid were then digitally copied onto a scaled base map (linked to the National Grid).
- Site drawings (plans and sections) were made by pencil (4H) on drafting film; all drawings include standard information: site details, personnel, date, scale, north-point.
- All features and finds were accurately located at an appropriate scale.
- All archaeological contexts were described to a standard format linked to a continuous numbering sequence.
- Finds were collected in sealable plastic bags labelled with the context number or other identifier.
- Photography: scaled monochrome photography was used as the archive standard record medium supported by digital photography for illustrative and presentation purposes.

Allocation of numbers

- Context numbers 100-189 were allocated to deposits recorded following topsoil stripping.
- Numbers 400-416 were allocated to environmental samples.
- Numbers 300-329 were allocated to drawings in the graphic index.
- Structural elements are highlighted in bold, feature cuts in [] brackets and deposits in () brackets.

Treatment of finds

- All finds in significant stratified contexts predating 1800 AD (for example, the features within the structural postholes) were retrieved and recorded by context. Some post-1800 material was collected in order to illustrate density of background scatter within the ploughsoil and to date the post-medieval features.
- In addition to the exposed natural subsoil and features all spoil heaps were inspected for unstratified artefacts.

All retained finds will be deposited in the Royal Cornwall Museum, Truro under the accession number TRURI:2010.40.

2.3.2 Environmental Sampling

Soil samples were taken from those features and layers which were considered to have the greatest potential for palaeoenvironmental analysis (for soil sample details see Section 8.2). Sample numbers were taken from a unique index of numbers and a sample description entered onto a *pro forma* sample record sheet.

A total of sixteen sample numbers (Sample numbers <400> - <416>) were assigned and totalled approximately 210 litres. This included 100% samples of postholes thought to have greatest potential for the survival of palaeoenvironmental data. All samples were sieved by flotation by Francis Shepherd (HE) in January 2011. The residues were collected on a 500 micron mesh and the floats on a 250 micron mesh. Floats and coarse residues were inspected for artefacts and the residues scanned with a magnet for evidence of hammer-scale. Once inspected, coarse residues were discarded. Unfortunately samples 412-414 had to be discarded as tubs had become damaged during storage.

2.3.3 Archiving

An ordered and cross-referenced site archive has been produced. Site plans, photographs and other records have been completed and indexed, and retrieved artefacts have been washed and marked (where appropriate) and catalogued.

2.3.4 Archive Report

Copies of this report will be distributed to the Client, the Historic Environment library and the local and main archaeological record libraries. Copies will be made available to specialists undertaking work on assessment and analysis of the site archive. A PDF copy of the report has been produced.

3 Location and setting

The Tremough TIC site is situated at the north-western end of an elongated spur (100m to 120m OD) immediately north west of Penryn at NGR SW 76741 34834 (Fig 1).

To the south east are the Fal estuary and the sea beyond, whilst to the east and north lie gentle undulating hills dominated by arable and pasture fields. Prior to the development the site was rough farmland on a gradual north facing slope (sloping from south to north over a distance of 46m leading down to the bottom of the stream valley and the old Penryn road. The underlying geology comprises clays associated with the igneous Carnmenellis granite (Geological Survey of Great Britain 1974). The majority of the exposed bedrock is granite but includes metamorphic rock with killas and vein-quartz. The natural clay subsoil ranged from a bright pale yellow to a deep rusty orange across the site. The overlying soil-type is classified as a Stagnogley soils and Rankers (*ibid*).

Previous geophysical surveys, archaeological assessments and fieldwork by HE Projects across much of the Tremough campus have identified significant prehistoric and Romano-British remains, including Early and Late Neolithic pits, Bronze Age post-rings, Romano-British settlements and field systems, and a rectilinear enclosure known as the 'Fort' (Gossip forthcoming a; Gossip and Jones 2007). Recorded in 2002 and closest to the TIC development site were a number of Late Neolithic Grooved Ware pits, Bronze Age post-rings and a Romano-British enclosure and roundhouse (Gossip and Jones 2007). Two kilometres to the south-east Late Neolithic pits and a Romano-British settlement were identified at Penryn College (Gossip forthcoming b) and numerous prehistoric, medieval and post medieval sites are recorded in the vicinity in the Cornwall Historic Environment Record (HER).

The Tremough place-name is of medieval origin and the pre-college development farmland was characterised as 'Anciently Enclosed Land' (Cornwall County Council 1996). 'Anciently Enclosed Land' (AEL) is made up of farming settlements documented before the seventeenth century AD and field patterns of medieval origin. Investigations

across Cornwall have demonstrated that AEL has a high potential to contain buried archaeology dating to the prehistoric and Romano-British periods (Cole and Jones 2002-3; Jones and Taylor 2010; Taylor 2005). The medieval and post-medieval farming landscape was extensively altered in the later eighteenth and nineteenth centuries following the construction of the present Tremough house. During this period the field layout was reorganised to make larger rectilinear fields and an ornamental landscape laid out around the house (Gossip and Jones 2008).

4 Archaeological results (Figs 2-4)

4.1 Summary

An area of approximately 0.4 hectares was stripped of topsoil under archaeological supervision. Topsoil comprised dark brown friable silty clay loam ranging in depth between 0.35m – 0.6m. Beneath this was the natural subsoil (128), a varied pale yellow, rusty orange or reddish brown stony clay. Stone was far more prevalent in the northern part of the stripped area on the lower slopes of the field. Archaeological deposits were restricted to the flatter southern-central part of the stripped area with the exception of a curvilinear ditch [154]/[162] extending north-westwards across the site (Figs 2 and 3). This contained nineteenth century material (blue transfer-ware, bone china, earthenware, stoneware ink jar, bottle glass fragments and boiler waste) and represented a removed hedge boundary shown on the 1840 Tithe Map for Mabe but removed by 1880 (Fig 5).

Preliminary dating is based on the finds catalogue (Section 12).

4.2 The early-medieval Structure 1 (Figs 3 and 4)

A group of features close to the southern boundary of the site appeared to represent the postholes and associated deposits forming the remains of a sub-rectangular structure. The structure comprised two distinctive groups of features: postholes characterised by circular cuts with vertical edges and flat bases deeper than 0.15m and potential postholes or pits with steep or slightly concave edges and flat or rounded bases less than 0.15m deep. Additional features included an internal pit.

The building was given the name Structure 1.

4.2.1 Postholes

Cut [125] was a circular posthole with vertical sides and a flat base 0.25m in diameter and 0.2m deep, possibly forming the south-eastern corner of the structure. Fill (124) comprised mid yellowish brown friable silty clay.

Cut [127] was 3.6m to the west and was a circular posthole with vertical sides and a flat base 0.40m in diameter and 0.15m deep. Fill (126) comprised mid brown friable silty clay.

A short distance to the north-west was [110], a circular posthole with vertical sides and a flat base 0.25m in diameter and 0.35m deep. Fill (109) comprised mid yellowish brown friable silty clay and contained a complete vessel of Gwithian style ware lying a little on its side almost on the base of the cut. The vessel was carefully lifted, packed and sent to Royal Cornwall Museum for conservation (see section xx below). Excavation of the interior of the vessel and conservation has since taken place and is reported on in Section 13 below. Since its interpretation as a posthole gives the building a kink, it is possible that this feature was actually a pit dug on the outside of the building, deliberately cut to take the pot.

1.4m to the north of [110] was posthole cut [169] which had vertical sides and a flat base, 0.3m in diameter and 0.3m deep. Fill (168) comprised mid brown friable silty clay. The posthole was part of a wider (later) cut [143], perhaps indicating replacement or maintenance of the post. This was filled by (108), a mid reddish brown friable silty

clay 0.08m deep containing eight sherds of early medieval pottery above greyish brown basal fill (167) 0.14m deep.

Posthole [136] was located 2.2m to the north-east of [107], again a circular posthole with vertical sides and a flat base 0.3m in diameter and 0.3m deep. Fill (135) comprised mid reddish brown friable silty clay. A single sherd of gabbroic Grass-Marked pottery was recovered from this deposit.

Posthole [136] abutted [138] immediately to the north-east, a circular posthole with vertical sides and a flat base 0.25m in diameter and 0.28m deep. Fill (137) comprised mid reddish brown friable silty clay and charcoal flecks, which may have been truncated by gully [140].

Two metres to the east of [136] was [179] the cut of a circular posthole 0.3m in diameter and 0.3m deep with vertical sides and a flat base. Fill (178) was mid reddish brown friable silty clay containing collapsed granite post-packing stones.

Just to the south-east of [179] was [147], a circular cut of a probable posthole 0.48m in diameter and 0.32m deep with vertical sides and a flat base. Fill (146) comprised mid reddish brown friable silty clay and collapsed granite post-packing stones. Charcoal flecks were also present and a fragment of slag (possible hearth bottom) was recovered. This feature probably lay inside the structure.

0.6m to the east of [147] was [181], a circular posthole cut 0.43m in diameter and 0.25m deep with almost vertical sides and a flat base. Fill (180) comprised mid reddish brown friable silty clay and *in situ* granite post-packing stones.

4.2.2 Possible Postholes/pits

Feature [115] was located between postholes [125] and [127], the southern side of the structure. This was a shallow oval cut with concave sides into natural subsoil measuring 0.6m long and 0.4m wide, and 0.1m deep. Fill (114) comprised mid reddish brown friable silty clay.

A circular feature [117] was located 1.7m to the west of posthole [110]. This was 0.4m in diameter and 0.1 m deep with vertical sides and a rounded base. Fill (116) comprised mid yellowish brown friable silty clay.

Between [117] and stone-lined pit [161] was posthole [101], a vertical sided circular cut with a flat base 0.2m deep and 0.35m in diameter containing fill (100), a mid brown silty clay. A total of 21 sherds of Grass-Marked pottery were recovered, including a large bar-lug sherd from the top of the fill. The freshness of the sherd suggests deposition following removal of a post if this feature acted as a posthole.

Pit [161] was a concave cut 1m in diameter and 0.4m deep with an *in situ* stone-lining comprising flat granite stones in a mid brown silty clay matrix (187).

Between postholes [169] and [136] was [166], a circular concave cut with a flat base 0.6m in diameter and 0.2m deep, filled by (107) a dark reddish brown silty clay with charcoal flecks and frequent stones, possible collapsed granite packing stones. This deposit contained sixteen sherds of early medieval pottery (see section xx below).

A group of small features were also clustered around the northern end of gully [140]. These comprised [132] and [134], potential postholes disturbed by gully [140].

[132] was a circular, steep-sided cut with a rounded base, 0.3m in diameter and 0.25m deep, filled by (131) a dark reddish brown silty clay. This had uncertain relationship with [134] immediately to its south. Feature 134 was a truncated circular concave cut 0.3m in diameter and 0.17m deep. Fill (131) contained five sherds of pottery including three conjoining sherds from the rim of a bar-jug cauldron and two Grass-Marked sherds. Four fragments of possible tap slag were also found in this fill (all early medieval). Both features appear to have been cut by gully [140]. It is possible that these features were related to the adjacent structure.

Feature [158]/[130] was located just to the north-east of gully [140], and consisted of a steep sided concave cut 0.6m long and 0.35m wide with a depth of 0.22m, filled by deposit (157)/(129), a mid reddish brown silty clay. Collapsed packing stones were also present, suggesting that this was a posthole which had been disturbed by later activity.

Immediately to the east of [158]/[130] was [164] a circular cut with steep concave sides and a rounded base 0.2m in diameter and 0.1m deep, filled by (163), a mid reddish brown friable silty clay. Although shallow this feature is feasibly a posthole as it is located at the end of two lines of posts, making this a possible north-east corner of the structure.

Within the structure was pit [112], comprising a vertical sided oval cut with rounded ends and a flat base 0.48m deep and measuring 1m long and 0.6m wide. Fill (111) comprised dark reddish brown silty clay 0.4m deep with occasional charcoal flecks and granite fragments. A bar-lug sherd (early medieval) was recovered from the fill. Below this was dark brown silty clay basal deposit (113), 0.08m deep and containing a bar-lug sherd (early medieval) (see section xx below).

To the east of gully [140] and posthole [125] were three closely spaced features [119], [121] and [123]. [119] was an irregular oval cut with vertical sides and a flat base measuring 0.6m long, 0.5m wide and 0.1m deep. Fill (118) comprised a friable mid yellowish brown silty clay.

To the west of these features was [121], a circular oval cut with vertical sides and a flat base measuring 0.3m in diameter and 0.1m deep. Fill (120) comprised a friable mid yellowish brown silty clay.

To the west of [121] was [123], a circular oval cut with vertical sides and a flat base measuring 0.25m in diameter and 0.12m deep. Fill (120) comprised a friable mid yellowish brown silty clay. The depth of this posthole suggests it is unlikely to represent the corner of the structure and may instead be part of a fence-line with [121] and [119].

4.3 Stone filled pit and postholes

Five metres to the south of Structure 1 was a pit (176), measuring 2.3m long and 1.8m wide and filled with large irregular pieces of stone. The soil matrix was a light brown silty clay with occasional charcoal flecks. No convincing cut was identified and the feature may be a tree-throw pit filled with natural stone. Two postholes were identified just to the north-east of pit (176). Posthole [175] was circular with steep concave edges and a rounded base, 0.4m in diameter and 0.3m deep. Fill (174) comprised dark brown compacted silty clay with granite stones lining the western and northern edges, probably packing stones. A disturbed southern edge may suggest an adjacent paired posthole. To the east was posthole [173] circular with steep concave edges and a rounded base, 0.48m in diameter and 0.25m deep. Fill (172) comprised dark reddish brown friable silty clay.

4.4 Gullies and stakeholes

Two gullies [140] and [156] were recorded aligned south-east to north-west were recorded. The southern gully [140] ran through the eastern end of Structure 1. The gullies measured 0.55m – 0.6m wide, the southernmost [140] (0.13m - 0.16m deep) extending for 12m from the southern baulk and terminating just north of Structure 1. After a gap or entrance 1.2m wide, gully [156] (0.25m deep) continued for 5.2m along a similar alignment. Close to its northern terminal gully [140] was seen to cut postholes [132] and [134], probably part of Structure 1. Fill was (106)/(139), a mid brown friable silty clay containing two sherds from a Grass-Marked ware vessel (early medieval) and a sherd of undiagnostic made Cornish Medieval Coarseware (11th to 12th centuries).

Posthole [152] was filled by deposit (151) and contained a bar-lug fragment (early medieval). The feature measured 0.25m in diameter and 0.28m deep, with a steep concave profile and a rounded base, was cut by the eastern edge of gully [156] through

gully fill (155)/(102), a dark reddish brown silty clay with charcoal flecks. This contained five sherds of Grass-Marked ware (early medieval) and a flint blade (residual). At the southern terminal of gully [156] was possible posthole [160], a circular steep cut 0.25m in diameter and 0.1m deep with a flat base containing fill (159), mid reddish brown silty clay with charcoal flecks. The northern end of gully [156] terminated in shallow (0.2m deep) concave pit 1m long and 0.75m wide.

A group of thirty-five stakeholes (148) were arranged parallel with the gullies crossing the entrance to the east. Stakeholes measured an average of 0.1m in diameter and up to 0.2m deep filled by dark reddish brown silty clays. The arrangement was a little irregular although formed a rough grouping of stakeholes in two parallel lines 0.35m apart. Finds from stakeholes included seven sherds of possible Grass-Marked ware (from (150), a fragment of iron tap slag (from 149)

Cut centrally within the gap between the two gullies was posthole [165]/[142]. This was 0.3m in diameter and 0.18m deep with vertical sides and a flat base (with a disturbed western edge) filled by (105)/(141), a compact mid reddish brown silty clay containing four sherds of Grass-Marked pottery and a fragment of possible iron tap slag.

Another stakehole group, (177) was recorded south of Structure 1 and to the west of gully [140]. This comprised sixteen stakeholes grouped together and covering an area 2.5m long and 1.5m wide but forming no coherent pattern. The stakeholes measured an average of 0.1m in diameter and up to 0.15m deep, filled with dark greyish brown silty clay.

4.5 Post-medieval activity (Fig 2-5)

A linear ditch [189] was recorded running to the east of and parallel with gully [140] and veering towards the north 10m from the southern baulk. The ditch was 1.8m wide and 0.3m deep with a concave, shallow sided profile. Fill (188) was loose, dark brown silty clay containing fragments of bottle glass, blue transfer-ware, bone china, clay-pipe stem and boiler waste (clinker), probably all nineteenth or earlier twentieth century in date. A narrow parallel linear feature, partly truncated, ran parallel and to the west of the north-south section of ditch [189] then curving sharply to a north-west south-east alignment becoming [154]/[162], parallel with and to the north of gully [156]. Ditch [154]/[162] was 1.9m wide and 0.3m deep with a shallow concave profile and was filled with a stony, loose, dark brown silty clay (103)/(153). Charcoal and boiler waste (clinker) was also abundant in the fill. Finds included nineteenth or earlier twentieth century ceramics and glass in addition to ceramic sherds dating from the medieval period to eighteenth century. Ditch [154]/[162] is shown on the Tithe Map for Mabe parish c 1840, merging with the southernmost section of ditch [189].

An area of disturbed ground, possibly the result of root disturbance, was found to cut gully [140]. The cut [183] was an irregular oval in plan, with uneven concave edges and an uneven base. Large quantities of angular stone, perhaps collapse from a hedge adjacent to boundary [198] were contained by the loose dark brown silty clay matrix (182). This deposit contained a sherd of early medieval pottery and five fragments of clay pipe stem. It is possible that this area of disturbance truncated a posthole or postholes forming the eastern end of the post-Roman/early medieval building.

A shallow linear cut [171] on a north-west south-east alignment was recorded 4m to the west of posthole [101], running parallel with post-medieval ditch [162]. This feature measured 3.5m in length and 0.8m – 1m wide with a shallow concave profile. Fill (170) was a maximum of 0.3m deep and was a dark brown silty clay containing moderate quantities of stone and charcoal flecks. Three sherds of Gwithian style pottery were found in the fill, but on the basis of the feature's relationship with ditch [171] these may be residual. The feature appeared to continue intermittently towards the north-west and downslope for approximately 30m, parallel with ditch [154], feeding into a large oval pit [191] cut into the bedrock, measuring 6.3m in length and 5.7m

wide and at least 1.8m deep. Excavation below this depth was not carried out due to concerns over ground stability.

A stony deposit (185) to the west of ditch [154], perhaps the collapse of a stone hedge, contained five sherds of undiagnostic pottery and two sherds of Grass-Marked pottery. These finds may be residual as the stone survived very high in the topsoil.

5 Chronology/dating evidence

Three phases are represented by the recorded features. These comprise a post-Roman/early medieval structure defined by postholes containing Grass-Marked wares and a Gwithian Style vessel. Some of the structural postholes also have a stratigraphic relationship with the later linear gullies. Subsequent to the gullies are the larger shallow ditches containing post-medieval artefacts.

6 Conclusions/discussion

6.1 Summary

The post-Roman/early medieval building, Structure 1 is an extremely rare example of a structure of this date in Cornwall, and of a type that is probably unique in the county. Its associated ceramic forms are equally unusual, particularly in stratified deposits and the dating of these will have great importance in helping to define the chronology of this period. Preliminary analysis of the stratigraphic record suggests a subrectangular shape for the structure but further analyses will be necessary. Structural postholes are assumed to be those with more steep-sided or vertical profiles and those containing packing stones. The exact shape of the eastern end of Structure 1 is hard to define. Fig 4 presents a conjectured shape for the building, forming in a building approximately 6m in length and 4m wide. Comparison with stratified deposits and structures of similar date, such as those at Gwithian (Nowakowski *et al* 2007) will increase the understanding of post-Roman occupation in Cornwall.

Gullies [140] and [156] may represent early field layout following disuse of the structure later in the early medieval period. A continuation of gully [140] was recorded to the south during the excavations of 2002. It is hoped that a tighter chronology will be achieved by further analysis of the pottery. Gully [171] and ditch [162] follow similar alignments and may also be associated with a medieval field system, in the case of [162] surviving into the post-medieval period.

Later field boundary layout with larger ditches (and probably their associated banks/hedges) probably occurred in the later Medieval or early post-Medieval period. The Tithe Map for Mabe shows that with the exception of ditch [162] all boundaries had been removed by 1840.

7 Post Archive stages: assessment, analysis and publication

7.1 Assessment of the archive

7.1.1 Assessment of stratigraphic, artefactual and palaeoenvironmental data

This report provides an archive of the stratigraphic and structural sequences discovered at Tremough Innovation Centre. The phasing and structural history of the site requires assessment by detailed study of the finds (pottery and worked stone) alongside targeted scientific dating of key contexts. Once this has been carried out a summary for

publication on the structure and stratigraphy of the site can be produced for publication.

Samples for palaeoenvironmental data were recovered during the excavation. Assessment of the plant macrofossils and charcoal will provide guidance for further analysis and help identify material suitable for scientific dating.

7.2 Analysis

7.2.1 Analysis of site stratigraphy and overall chronological narratives

Careful analysis of the written and drawn record will assist stratigraphic reconstruction of site processes. This will establish site chronology, helping to determine the processes of site activity and changing use over time. Comparisons will be possible with similar site types both locally and regionally.

7.2.2 Analysis of the artefacts

If preliminary dating of the pottery is correct and the structure dates to the post-Roman period, sites of this date are rare in Cornwall and this particular building type unique. The study of form and material will therefore form an important aspect of post-excavation analysis in conjunction with the radiocarbon dating of residues on pottery (if present) and will allow comparison with material excavated at other sites of similar date in Cornwall and beyond. It will also help to establish ideas of function, assisting the development of a site narrative and an accurate chronology.

7.2.3 Analysis of the palaeoenvironmental data

Analysis of plant macrofossil remains and charcoal will contribute to an understanding of the local environment and economy during the post-Roman and early medieval periods.

7.2.4 Scientific dating programme

Material suitable for radiocarbon dating (for example, charcoal and residues on ceramics) is available. From this information it should be possible to confirm and define distinctive chronological phases of activity.

7.2.5 Publication

On completion of analysis a synthesis of the results of the excavations will be submitted for publication in a journal of regional national standing, such as the county archaeological journal, *Cornish Archaeology*

8 Site inventory

8.1 Context index

Context	Type	Description	Cut	Above	Below	Plan	Section	sample	depth	Dimensions /diameter
100		Fill of posthole 101	101	101		305/304	317	400	0.2	Diam 0.35
101		Cut of posthole filled by (100)			100	305/304	317		0.2	Diam 0.35
102		Fill of linear gully [156] - same as (155)	156	156		314	310			L4.3 W 0.6
103		Fill of post-med ditch - same as (153)	154	154		314	311			L 7 W 1.9
104		Fill of posthole				314			0.1	Diam 0.1
105		Fill of posthole [165]	165	165		305	313	414	0.18	Diam 0.3
106		Fill of posthole				305	322/326	415	D 0.13- 0.16	L 11+, W 0.55,
107		Fill of posthole				305	316	402	0.12	Diam 0.6
108		Fill of posthole [143]	143	143		305	315	410	0.08	Diam 0.6
109		Fill of posthole [110]	110			321	307	401	0.35	Diam 0.4
110		Cut of posthole filled by (109)				321	307		0.35	Diam 0.4
111		Fill of pit [112]	112	113		305	309	403, 412	0.4	L 1.0, W 0.6
112		Cut of pit filled by (111)			113	305	309		0.48	L 1.0, W 0.6
113		Fill of pit 112 below (111)		112	111		309	404, 413	0.08	L 1.0, W 0.6
114		Fill of pit or posthole [115]	115	115		321	306	405	0.1	L 0.6 W 0.4
115		Cut filled by (114)			114	321	306		0.1	L 0.6 W 0.4
116		Fill of posthole [117]	117	117		305		406	0.1	Diam 0.4
117		Cut of posthole filled by (116)			116	305			0.1	Diam 0.4
118		Fill of posthole [119]	119	119		321	300		0.1	L .6 W 0.5
119		Cut of posthole filled by (118)			118	321	300		0.1	L .6 W 0.5
120		Fill of posthole [121]	121	121		321	301		0.1	Diam 0.3

Context	Type	Description	Cut	Above	Below	Plan	Section	sample	depth	Dimensions /diameter
121		Cut of posthole filled by (120)			120	321	301		0.1	Diam 0.3
122		Fill of posthole [123]	123	123		321	302		0.12	Diam 0.25
123		Cut of posthole filled by (122)				321	302		0.12	Diam 0.25
124		Fill of posthole [125]	125	125		321	303	416	0.18	Diam 0.25
125		Cut of posthole filled by (124)				321	303		0.18	Diam 0.25
126		Fill of posthole [127]	127	127		321			0.13	Diam 0.42
127		Cut of posthole filled by (126)				321			0.13	Diam 0.42
128		Natural subsoil							/	/
129		Fill of posthole [130]	130	130		314	312	409	0.22	L .6 W 0.35
130		Cut of posthole filled by (129)				314	312		0.22	L .6 W 0.35
131		Fill of posthole [132] possibly cut by [134]	132	132	134	305	326	407	0.25	Diam 0.3
132		Cut of posthole filled by (131)			131	305	326		0.25	Diam 0.3
133		Fill of posthole [134]	134	134		305	326/327		0.17	Diam 0.3
134		Cut of posthole filled by (133)				305	326/327		0.17	Diam 0.3
135		Fill of posthole [136]	136	136		305	327		0.3	Diam 0.28
136		Cut of posthole filled by (135)				305	327		0.3	Diam 0.28
137		Fill of posthole [138]	138	138		305	327		0.28	Diam 0.25
138		Cut of posthole filled by (137)				305	327		0.28	Diam 0.25
139		Fill of gully [140]	140	140		305	326/327		0.13-0.16	W 0.55
140		Cut of gully filled by (139)				305	326/327		0.13-0.16	W 0.55
141		Fill of posthole [142]	142	142		305	313	408	0.18	Diam 0.3
142		Cut of posthole with stakehole filled by (141)				305	313		0.18	Diam 0.3
143		Cut of posthole filled by (108)		168	108	305	315		0.35	L .65 W 0.5
144		VOID								
145		VOID								
146		Fill of posthole [147]	147			305	323		0.32	Diam 0.48
147		Cut of posthole filled by (146)			146	305	323		0.32	Diam 0.48
148		Stakehole group on southern edge of curvilinear ditch				305				

Context	Type	Description	Cut	Above	Below	Plan	Section	sample	depth	Dimensions /diameter
149		Stakehole part of 148				305			0.1	Diam 0.08
150		Stakehole part of 148				305			0.1	Diam 0.08
151		Fill of posthole [152]	152	152		314	310		0.28	Diam 0.24
152		Cut of posthole filled by (151)			151	314	310		0.28	Diam 0.24
153		Fill of post-medieval ditch [154] same as (103)	154	154		314	311			L7 W 1.9
154		Cut of ditch/gully filled by (153)			153	314	311			L7.0 W 1.9
155		Fill of gully [156] cut by [152] (same as (102))	156	156	152	314	310			L 4.3 W 0.6
156		Cut of gully filled by (155)			155	314	310		0.25	L 4.3 W 0.6
157		Fill of posthole [158]	158	158		314	312		0.22	L 0.6 W 0.35
158		Cut of posthole filled by (157)			157	314	312		0.22	L 0.6 W 0.35
159		Fill of posthole [160]	160	160		314	310		0.1	Diam 0.25
160		Cut of posthole filled by (159), cuts (153)		153	159	314	310		0.1	Diam 0.25
161		Stone lined pit				305			0.4	Diam 1.0
162		Cut of ditch (same as [154]) filled by (153)/(103)			153/ 103	314	311			L 7 W 1.9
163		Fill of posthole [164] cut by [162]	164	164		314	311		0.1	Diam 0.2
164		Cut of posthole filled by (163)			163	314	311		0.1	Diam 0.2
165		Cut of posthole filled by (105)			105	305	313		0.18	Diam 0.3
166		Cut of posthole filled by (107)			107	305	316		0.12	Diam 0.6
167		Fill of posthole [143] below (108)	143	143	108	305	315		0.14	L .45 W .4
168		Fill of posthole [169] cut by [143]	169	169	143	305	315		0.28	Diam 0.3
169		Cut of posthole filled by (168)			168	305	315		0.28	Diam 0.3
170		Fill of linear gully [171]	171	171		304	318		0.28	L 3.5 W .8
171		Cut of gully filled by (170)			170	304	318		0.28	L 3.5 W .8
172		Fill of posthole [173]	173	173		321	319		0.25	Diam 0.48
173		Cut of posthole filled by (172)			172	321	319		0.25	Diam 0.48
174		Fill of posthole [175]	175	184		321	320		0.15	Diam 0.4
175		Cut of posthole filled by (174)			174	321	320		0.3	Diam 0.4

Context	Type	Description	Cut	Above	Below	Plan	Section	sample	depth	Dimensions /diameter
176		Stones near southern edge of excavation				321				
177		Stakehole group				321				
178		Fill of posthole [179]	179	179		305	324		0.22	Diam 0.32
179		Cut of posthole filled by (178)			178	305	324		0.22	Diam 0.32
180		Fill of posthole [181] with stone packing	181	181		305	325		0.25	Diam 0.43
181		Cut of posthole filled by (180)			180	305	325		0.25	Diam 0.43
182		Fill of disturbed posthole [183]	183	183		305			0.16	L 4.0 W 1.4
183		Cut of possible root disturbed posthole			182	305			0.16	L 4.0 W 1.4
184		Fill of posthole [175] below (174)	175	175	174	321	328		0.15	Diam 0.4
185		Stony deposit to west of ditch [154]			186					
186		topsoil								
187		Fill of [161], stone lined pit	161	161	186	305			0.4	Diam 1.0
188		Fill of post-medieval ditch [189]	189	189	186				0.3	W 1.8
189		Cut of post-medieval ditch			188				0.3	W 1.8
190		Fill of large post-medieval pit	191	191	186				1.8	W 5.7 L 6.3
191		Cut of large post-medieval pit			190				1.8	W 5.7 L 6.3

8.2 Sample Index

Sample Number	Context	Volume (L)	Feature Type	Description
400	(100)	5	Fill of posthole	Flot – no charcoal – contained bar-lug pottery
401	(109)	18	Fill of posthole	Flot / charcoal
402	(107)	10	Fill of posthole	Flot / charcoal – contained pottery
403	(111)	85	Fill of pit [112]	Flot / charcoal
404	(113)	5	Basal fill of [112]	Flot / charcoal
405	(114)	10	Fill of pit/posthole [115]	Flot / charcoal
406	(116)	2	Fill of posthole [117]	Flot
407	(131)	12	Fill of posthole [132]	Flot / charcoal
408	(141)	4	Fill of posthole [142]	Flot / charcoal
409	(129)	6	Fill of posthole [130]	Flot / charcoal – contained pottery and slag
410	(108)	4	Fill of pit [143]	Flot / charcoal
411	(144)	1	Fill of pit [145]	Flot / charcoal and occasional seed
412	(111)	1	Fill of pit [112]	Discarded
413	(113)	1	Fill of pit [112]	Discarded
414	(105)	1	Fill of posthole [165]	Discarded
415	(106)	40	Fill of gully [140]	Flot / charcoal and occasional seed
416	(124)	40	Fill of posthole [125]	Flot – No significant charcoal

8.3 Graphic Index

Drawing number GRE	Plan/Section	Description	Context numbers
/300	S	Posthole [119]	118
/301	S	Posthole [121]	120
/302	S	Posthole [123]	122
/303	S	Posthole [124]	125
/304	P	Site plan	[161] [101] [110] [127] [115] [161] [179] [147] [181] [183] [119] [121] [123] [125] [166] [142] [132] [112] [165] [143] [134] [136] [138] [140] (111) (105) (106) (107) (108) (131) (133) (135) (137) (139)
/305	P	Site plan	
/306	S	Posthole [115]	114
/307	S	Posthole [110]	109
/308	S	Posthole [127]	126

<i>Drawing number GRE</i>	<i>Plan/Section</i>	<i>Description</i>	<i>Context numbers</i>
/309	S	Pit [112]	(111) (113)
/310	S	Posthole [160] [152]	(155) (159) (151) (102)
/311	S	Ditch [162]	(153) (163) (103)
/312	S	Posthole [158]/[130]	(157)/(129)
/313	S	Posthole [165]	(105)
/314	P	Site plan	[160] (102) (159) (155) [156] (151) [152] [162] (153) (104) (150) [154] [165]/[142] (105)/(141) [158] (157) [164] (163) [148] [130] (129)
/315	S	Posthole [143]	(108)
/316	S	Posthole [166]	(107)
/317	S	Posthole [101]	(100)
/318	S	Gully [171]	(170)
/319	S	Posthole [173]	(172)
/320	S	Posthole [175]	(174)
/321	P		[110] (109) [127] (126) [115] (114) [125] (124) [123] (122) [121] (120) [119] (118) [173] (172) [175] (174) (176)
/322	S	Gully [140]	(139)/(106)
/323	S	Posthole [147]	(146)
/324	S	Posthole [179]	(178)
/325	S	Posthole [181]	(180)
/326	S	Gully [140], posthole [134], posthole [132]	(139) (133) 131)
/327	S	Gully [140], posthole [134], posthole [136], posthole [138]	(139) (133) (135) (137)
/328	S	posthole [175]	(174) (184)
/329	S	posthole [173]	(172)

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10 Project archive

The HE project number is **2010089**

The project's documentary, photographic and drawn archive is housed at the offices of Historic Environment, Cornwall Council, Kennall Building, Old County Hall, Station Road, Truro, TR1 3AY. The contents of this archive are as listed below:

1. A project file containing site records and notes, project correspondence and administration.
2. Field plans and copies of historic maps stored in an A2-size plastic envelope (GRE 731).
3. Electronic drawings stored in the directory \CAD ARCHIVE\Sites T\Tremough TIC 2010089
4. Black and white photographs archived under the following index numbers: GBP 2177 – 2178
5. Digital photographs stored in the directory \Images\Sites T\ Tremough TIC 2010089.
6. English Heritage/ADS OASIS online reference: cornwall2-104621
7. This report text is held in digital form as: G:\CAU\HE Projects\Sites T\ Tremough SWRDA Area and TIC Building\ TIC building 2010\Post excavation\Tremough TIC archive report 2010089

Artefacts and environmental material retrieved during the project will be deposited at the Royal Cornwall Museum, River Street, Truro. The RCM accession no. is TRURI:2010.40.

11 Revised written scheme of investigation for archaeological recording at the TIC building

11.1 BACKGROUND

11.1.1 Introduction

HES have been requested by Mr Tom Muncaster of Leadbitter to provide a project design and estimate for archaeological excavation which is expected to be required to fulfil a PPG16 planning condition for the development of the Tremough Innovation Centre (TIC) building at Tremough, Penryn. The development area covers an area of approximately 1.3 HA. A recent geophysical survey of this area (Archaeological Surveys, Ltd 2008) identified a number of anomalies, which may prove to be of an archaeological nature. These included several pit-type anomalies. Previous geophysical surveys, archaeological assessments and fieldwork by HES in the adjacent area have led to the identification of significant prehistoric and Romano-British remains, including Late Neolithic pits containing Grooved Ware, Bronze Age post-rings and Romano-British settlements and field systems (Gossip and Jones 2007). It is probable that similar remains will be located within the TIC foot-print.

Phil Copleston (Historic Environment Advice Officer, Cornwall County Council) has been consulted on the requirements for archaeological recording. His recommendations for recording have guided this project design.

The work is scheduled to commence in February 2009.

11.1.2 Historical background

Landscape

Tremough is located within an area of Anciently Enclosed Land (land which was enclosed in the medieval period or earlier), which was partially transformed into an Ornamental Landscape consisting of parkland during the post-medieval period.

Known archaeological sites

The project area is situated within an area of high archaeological potential, which contains evidence for prehistoric, Roman and medieval activity. The proposed development will be located in an area where geophysical anomalies have been identified, and is adjacent to excavated sites of prehistoric/Romano-British date. The sites, identified during various archaeological investigations, include:

- Later prehistoric/Romano-British enclosure identified by geophysical surveys of the project area.
- An Early Neolithic flint scatter and greenstone axe.
- Pits and ditches have been radiocarbon dated to the Early Neolithic period.
- Pits of Later Neolithic date.
- The largest assemblage of Neolithic Grooved Ware pottery in Southwest Britain
- Middle Bronze Age old land surfaces, pits and pottery, and post-rings associated with ceremonial activity.
- Field systems of later Iron Age and Romano-British origin.
- A large number of prehistoric, Roman, earlier and later medieval artefacts have also been recovered during the course of archaeological fieldwork.
- Geophysical survey in 2008 led to the discovery of group of archaeological anomalies, which included curvilinear ditches and pit-type features.

Potential sites

There is high potential for the survival of unrecorded archaeological remains and artefacts of all periods.

11.1.3 Construction works

The following works are understood to involve ground disturbance.

- Excavation for soak-away excavations (to be carried out February/March 2009).
- The construction of the TIC building within the proposed development area (to be constructed April 2009).
- Excavation of car-park (to be constructed January 2010).
- Excavation of services/drain connections.

11.2 AIMS AND OBJECTIVES

- To ensure that the site works associated with the TIC development are carried out in such a way as to allow adequate recording.
- To record archaeological features and deposits affected by the scheme.
- To recover and record artefacts uncovered by the works.
- To disseminate the results of discoveries appropriately.

The TIC development area has the potential to contain important buried archaeological sites. The archaeological investigation of this area therefore provides an opportunity to better understand the character and potential of this resource by recording sites and features affected by it.

11.2.1 Key objectives are:

- To locate and record prehistoric, Romano-British and medieval settlement activity within the area of the proposed development.

11.3 METHODOLOGY

The archaeological programme will follow five stages: fieldwork; archiving; assessment; analysis; publication.

11.3.1 Fieldwork

Archaeological monitoring (watching briefs and controlled soil strips) should be undertaken in advance of construction works.

11.3.2 Pre-works meeting

In advance of site works a meeting will be held between HES, the resident engineer and the contractor to discuss and agree:

- Working methods across the development area and programme.
- Health and Safety issues and requirements.

11.3.3 Archaeological monitoring

11.3.3.1 Soak-away and services/drains

The archaeological monitoring of the soak-away and any service trenching will take the form of a watching brief. This will be carried out during the trench digging under archaeological supervision. An archaeologist will then inspect the soak-away excavations/service trenches and any archaeological features or layers exposed in them will be archaeologically recorded by written description, plan and section and photographic record as appropriate by an HES archaeologist.

During these elements of the site monitoring the archaeologist will:

- Identify and record any archaeological features that are revealed in the trenches;

the level of recording will be appropriate to the character/importance of the archaeological remains.

If archaeological deposits of a regional or national importance are uncovered, then the soak-away excavations should be moved or time allowed to review the options to ensure their preservation *in situ*. In the event that remains cannot be preserved *in situ* then full-scale excavation may be required. The significance of the remains should be agreed between the client, the Historic Environment Planning Advice Officer and HES (Projects).

11.3.3.2 TIC building and car-park area

Archaeological monitoring with the areas of the TIC building and car-park will be undertaken as the first stage of the mitigation programme. Controlled soil stripping under archaeological supervision should be carried out across the entire development area.

Soil stripping should be carried out under archaeological supervision using a machine fitted with a toothless bucket. The soil will be stripped cleanly to a level at which archaeological features or layers can be expected to be revealed (ie, top of the "natural subsoil"). Machines will not run over the stripped area until recorded by the archaeologist.

Where significant remains are encountered the site archaeologist will be given the opportunity to make an appropriate record before work proceeds; where a temporary stop of work is required the site archaeologist will request this via the resident engineer.

If archaeological deposits of a regional or national importance are uncovered, then a contingency should be allowed within the construction programme to review options to ensure their preservation *in situ*. In the event that remains cannot be preserved *in situ* then full-scale excavation may be required. The significance of the remains should be agreed between the archaeologist and the Historic Environment Advice Officer.

11.3.3.3 Excavation

Excavations will take place in those parts of the site where the development will lead to the removal of complex or extensive archaeological remains. Following the controlled soil stripping the site archaeologist in consultation with the Historic Environment Planning Advice Officer will decide where full-scale excavation is required.

Where complex/extensive remains are encountered the site archaeologist will be given the opportunity to make an appropriate record before work proceeds; a programme to achieve this will be agreed with the Contractor. A contingency excavation time of up to 20 days (x 5 members of HES) has been estimated.

In the event that this contingency is insufficient, additional time will be negotiated between the client and HES. All excavations will be completed within 6 months of the controlled stripping.

11.3.4 Fieldwork recording

Following the controlled soil stripping the archaeologist will record any archaeological features which are to be affected by the construction of the building/car-park.

Recording - general

- Site drawings (plans, sections, locations of finds) will be made by pencil (4H) on drafting film; all plans will be linked to the Ordnance Survey landline map; all drawings will include standard information: site details, personnel, date, scale, north-point
- All features and finds will be accurately located at an appropriate scale.

- All archaeological contexts will be described to a standard format linked to a continuous numbering sequence.
- Photography: scaled monochrome photography will be used as the main record medium, with digital images used more selectively and for illustrative purposes. A photographic scale will be used and a north arrow included as appropriate. A photographic register will be kept, giving feature number, location and direction of shot.
- A location plan will be made linking the site with features that have been mapped by the Ordnance Survey.
- The heights of all features will be tied into the Ordnance Datum.
- Phased plans and sections at a scale of 1:10 and 1:20 will be made of all excavated features.
- Sealed/undisturbed archaeological contexts in the form of buried soils, layers or deposits within cut features (ditches and pits, etc) will be sampled for environmental evidence and dating material. Advice may be needed from Vanessa Straker (Regional Advisor for Archaeological Science).
- The spoil from the controlled stripping will be adequately inspected for finds.

11.3.5 Treatment of finds

The fieldwork is likely to produce artefactual/environmental material.

- All finds in significant stratified contexts predating 1800 AD (eg, settlement features) should be plotted on a scaled base plan and described. Post medieval or modern finds may be disposed of at the cataloguing stage. This process will be reviewed ahead of its implementation.
- All finds predating 1800 AD will be collected in sealable plastic bags which will be labelled immediately with the context number or other identifier.
- Significant, sealed archaeological contexts (predating c 1500 AD) will be considered for sampling for environmental material and the strategy will be discussed with the project manager. All recovered samples will be evaluated at the assessment stage and some may be disposed of. Only flots will be retained for inclusion within the project archive.

11.4 POST FIELDWORK STAGES

11.4.1 Archiving

Following review with the HES Project Manager, the results from the fieldwork will be collated as an archive. This will involve washing and cataloguing of finds, the indexing and cross-referencing of photographs, drawings and context records. Initial processing of any palaeoenvironmental samples will be undertaken. This will involve flotation of bulk samples to recover plant macrofossils and other remains.

- All finds and samples, etc will be stored in a proper manner (being clearly labelled and marked and stored according to HES guidelines).
- All records (context sheets, photographs, etc) will be ordered, catalogued and stored in an appropriate manner (according to HES guidelines).
- A summary of the results will be presented to the Historic Environment Service Planning Advice Officer.
- The site archive and finds will initially be stored at HES premises and transferred to the Royal Cornwall Museum and the RCM conditions for archives will be followed. The RCM will be notified of the commencement of the project and included in discussions for sampling and disposal as appropriate.

11.4.2 Report production

The results from the archaeological fieldwork will be presented in a concise archive report. Copies of the report will be distributed to the Client, the County Archaeologist and the main archaeological and local record libraries.

This will involve:

- producing a descriptive text;
- producing maps and line drawings;
- selecting photographs;
- report design;
- report editing;
- dissemination of the finished report
- deposition of archive and finds in the Royal Cornwall Museum, Truro

The archive report will have the following contents:

- Summary
- Introduction - background, objectives, methods
- Results - factual description of the results of the various aspects of the project, with separate sections as necessary for discussion/interpretation
- Discussion - discussion of the interpretation of the results, highlighting information gained on a chronological or thematic basis
- Archive - a brief summary and index to the project archive
- Illustrations -
 - general location plan
 - detailed location plans to link fieldwork results to OS map
 - selected plans and section drawings (as appropriate)
 - finds drawings (if appropriate)
 - photographs (if appropriate)

11.4.3 Assessment

On completion of the archive report an assessment stage will be carried out. This will involve assessment of structural and stratigraphic data and artefactual material, etc. The outline of the assessment report, and the work required to produce it will also be determined.

- Liaise with specialists (environmental samples, radiocarbon dating and artefacts, etc) to arrange for assessment of the potential for further analysis and reporting.
- Send off artefacts (ceramics, etc) to the appropriate specialist for further study.
- Send off residues from residues from environmental samples to appropriate specialists.
- Sort out and send off suitable material for radiocarbon dating.
- Project design for further analyses and publication.

11.4.4 Academic/Final publication

In the event of significant remains being discovered there may be a further stage of analyses leading to formal publication. This will involve the analysis of structural and stratigraphic data,

artefacts, and environmental samples to be governed by an updated project design agreed with the Historic Environment Advice Officer. The scope and final form of the report will be reviewed; for example in addition to an archive report the results should be published in an academic journal (eg, *Cornish Archaeology*) and would include:

- Discussion of the significance of the results in relation to Local, Regional and National research objectives.
- A synthesis of the results from the earlier evaluations will be incorporated into any final publication.

11.5 Project staff

A team of experienced archaeologists employed by HES will carry out the archaeological fieldwork under the supervision of a project officer.

The report will be compiled by experienced archaeologist(s) employed by HES.

Relevant experienced and qualified specialists will be employed to undertake appropriate tasks during the assessment and analysis stages of the project.

The project will be managed by a member of staff who is a member of the Institute of Field Archaeologists, or the equivalent standard, who will:

- Take responsibility for the overall direction of the project.
- Discuss and agree the objectives and programme of each stage of the project with project staff, including arrangements for Health and Safety.
- Monitor progress and results for each stage.
- Edit the project report.

11.6 Monitoring

- This written scheme of investigation must be agreed by the Local Planning Authority
- The recording exercise will be monitored. The Historic Environment Service Planning Advice Officer should be informed 1 week in advance of the intention to start the recording.
- HES will liaise with the Historic Environment Service Planning Advice Officer to advise on the programme and progress of work, and agree site meetings as required.
- A summary of the results will be presented to the Historic Environment Service Planning Advice Officer within 1 month of the completion of the fieldwork.
- The updated project design and timetable for the archiving, analysis and publication stages will be agreed with the Historic Environment Service Planning Advice Officer.

NOTES:

- HES will require 2 weeks notification before commencing the fieldwork project.
- The area of the archaeological investigation will be agreed in advance of the project with the client and the Historic Environment Service Planning Advice Officer, and this will be marked out on the ground by the client in advance of the archaeological fieldwork.
- Historic Environment Service staff will not be responsible for the direction of Plant other than to ensure the level of the soil stripping is adequate. Historic Environment Service staff will not operate any machinery.

- The costs of plant hire are not included in this project and estimate. This project design and estimate does not include the costs of site accommodation, or toilets, etc. If these are required the estimate will be revised.
- The Historic Environment Service will not be responsible for reinstating the ground after excavations or making it safe.
- It is intended that the programme for archiving, assessment, analysis and reporting is reviewed in the light of the fieldwork results.

11.7 Timetable

The archiving and archive report will be completed within 12 months of the ending of the excavations. The timetable for further stages of assessment, analyses and publication will be agreed with Historic Environment Planning Advice Officer in the light of the results of the excavations.

11.8 Health and safety during the fieldwork

11.8.1 Health and safety statement

The Historic Environment Service is within the Planning, Transportation and Estates Department of Cornwall County Council. The Service follows the County Council's *Statement of Safety Policy*. For more specific policy and guidelines the Unit uses the manual *Health and Safety in Field Archaeology* (2002) endorsed by the Standing Conference of Archaeological Unit Managers and also the Council for British Archaeology's Handbook No. 6 *Safety in Archaeological Field Work* (1989).

Prior to carrying out any fieldwork HES will carry out a risk assessment. A Health and Safety plan will be produced if excavations are required

11.9 Copyright

Copyright of all material gathered as a result of the project will be reserved to the Planning, Transportation and Estates Department, Cornwall County Council. Existing copyrights of external sources will be acknowledged where required.

Use of the material will be granted to the client.

11.10 Insurance

As part of Cornwall County Council, HES is covered by Public Liability and Employers Liability Insurance.

11.11 Standards

The HES follows the Institute For Archaeologists' Standards and Code of Conduct and is a Registered Archaeological Organization.

As part of Planning, Transportation and Estates, Cornwall County Council, the HES has certification in BS9001 (Quality Management), BS14001 (Environmental Management), OHSAS18001 (Health, Safety and Welfare), Investors in People and Charter Mark.

11.12 Freedom of Information

All information gathered during the implementation of the project will be subject to the rules and regulations of the Freedom of Information Act 2000.

11.13 References

Archaeological Surveys Ltd, 2008, *Tremough Campus, Penryn, Cornwall, Cornwall*, (Survey Ref: 235)

Gossip, J and Jones, A M, 2007, *Archaeological Investigations of a Later Prehistoric and a Romano-British Landscape at Tremough, Penryn, Cornwall*, BAR Brit Series **443**

12 Tremough TIC Building finds report

C M Thorpe

Introduction

A total of 144 artefacts were recovered during this project.

Pottery comprises the largest number of finds (114 sherds or 79.16% of the collection). There is also stone, flint, clay pipe, industrial debris, and metalwork within the assemblage.

28 artefacts are unstratified and were found during the cleaning of the site, and from the spoil heap. The remaining artefacts were collected from sealed features or layers and were recorded by context. None were 'small found'.

The total number of finds from each context are summarised in the tables below.

Context No: U/S

MATERIAL	WEIGHT (g)	NO OF ITEMS	OBJECT NO	INTERIM BOX NO
Pottery				
Bronze Age	3g	1		
Early Medieval	138g	6		
Medieval	29g	3		
Post-Medieval	52g	2		
Stonework				
Flint	8g	3		
Pebble	225g	1		
Clay				
Other: Clay Pipe	10g	1		

1 abraded sherd Prehistoric pottery (Gabbroic admixture?). Bronze Age?

1 rimsherd from a jar? (Granitic? fabric). Well made, hard fired. "Gwithian Style" Ware? Early medieval, 6th to 7th centuries.

1 rimsherd abraded from a Flanged bowl. (Granitic? fabric). Well made, hard fired. "Gwithian Style" Ware? Early medieval, 6th to 7th centuries.

1 basal angle sherd. Fresh, not heavily abraded. Granitic fabric. Hard fired. Large diameter vessel with flat base. Exterior has grass-marking. Part of large cooking vessel or bar-lug cauldron. (Grass-Marked ware) Early-medieval, 7th to 12th centuries AD.

1 sherd very abraded. Gabbroic? fabric.) Early-medieval ?

1 basal angle sherd Cornish Medieval Coarseware (Bunnings Park/Stuffle Ware). 13th to 14th centuries.

2 co-joining sherds Cornish Late Medieval Coarseware. 14th to 15th centuries.

2 sherds North Devon Post-Medieval Glazed Red Earthenware. 17th to 18th centuries.

1 complete clay pipe bowl with cartouche on side marked (EH). Ø = 2.5mm. 1650 - 1680.

1 quartzite pebble whetstone. Prehistoric?

3 flints. Prehistoric.

Context No: U/S Francis Cleaning layer

MATERIAL	WEIGHT (g)	NO OF ITEMS	OBJECT NO	INTERIM BOX NO
Pottery				
Early Medieval	150g	5		
Metalwork				
Industrial debris	476g	2		

Stonework				
Flint	7g	2		
Clay				
Other: Clay pipe	17g	2		

1 lug from a bar-lug cauldron. Granitic fabric. Hard fired (Grass-Marked ware) Early-medieval, 7th to 12th centuries AD.

2 basal angle sherds. Granitic fabric. Hard fired. Exterior has grass-marking (Grass-Marked ware) Early-medieval, 7th to 12th centuries AD.

2 sherds. Granitic fabric. (Grass-Marked ware) Early-medieval, 7th to 12th centuries AD.

3 sherds. Hand made, granitic fabric. Cornish Medieval Coarseware. 13th to 14th centuries.

1 sherd Cornish Late Medieval Coarseware. 14th to 15th centuries.

1 sherd Cornish Late Medieval Coarseware with lines of lead glaze. 15th to 16th centuries.

2 fragment of Iron tap slag (1 large). Slightly magnetic.

1 complete clay pipe bowl. South West style. Ø = 3.5mm. 1590 - 1620.

1 clay pipe stem fragment. Ø = 3.5mm. 1590 - 1620.

4 waste flints. Prehistoric.

Context No: (100). Fill of Posthole [101]

MATERIAL	WEIGHT (g)	NO OF ITEMS	OBJECT NO	INTERIM BOX NO
Pottery				
Early Medieval	810g	21		

17 sherds forming base and base angles. Fresh, not heavily abraded. Granitic fabric? Hard fired. Large diameter vessel with flat base. Exterior has grass-marking. Part of large cooking vessel or bar-lug cauldron. (Grass-Marked ware) Early-medieval, 7th to 12th centuries AD.

4 rim sherds and bar-lip/lug. Fresh, not heavily abraded. Granitic fabric? Hard fired. Large diameter vessel with flat base. Exterior has grass-marking. Part of large bar-lug cauldron. (Grass-Marked ware) Early-medieval, 7th to 12th centuries AD.

Context No: (102) Fill of linear gully [156]. Same as (155)

MATERIAL	WEIGHT (g)	NO OF ITEMS	OBJECT NO	INTERIM BOX NO
Pottery				
Early Medieval	27g	5		
Stonework				
Flint	1g	1		

5 sherds. Gabbroic fabric? Hard fired. Exterior has grass-marking. (Grass-Marked ware) Early-medieval, 7th to 12th centuries AD. (2 with internal residue)

1 flint blade. Prehistoric.

Context No: (103) Fill of postmed ditch – same as (153)

MATERIAL	WEIGHT (g)	NO OF ITEMS	OBJECT NO	INTERIM BOX NO
Pottery				
Early Medieval	27g	1		
Metalwork				
Industrial debris	25g	1		
Stonework				

1 sherd. Granitic fabric? Hard fired. (Grass-Marked ware) Early-medieval, 7th to 12th centuries AD.

1 fragment of Iron tap slag. Slightly magnetic.

Context No: (104) Fill of posthole

MATERIAL	WEIGHT (g)	NO OF ITEMS	OBJECT NO	INTERIM BOX NO
Pottery				
Early Medieval	32g	2		

1 rim sherd. Granitic fabric? Part of bar-lip. Part of bar-lug cauldron. (Grass-Marked ware) Early-medieval, 7th to 12th centuries AD.

1 basal angle sherd. Exterior has grass-marking. (Grass-Marked ware) Early-medieval, 7th to 12th centuries AD. (Internal residue)

Context No: (105) Fill of posthole [165]

MATERIAL	WEIGHT (g)	NO OF ITEMS	OBJECT NO	INTERIM BOX NO
Pottery				
Early Medieval	29g	4		
Metalwork				
Industrial debris	25g	1		

4 sherds. Granitic fabric? Hard fired. (Grass-Marked ware) Early-medieval, 7th to 12th centuries AD.

1 fragment of iron tap slag. Slightly magnetic.

Context No: (106) Fill of posthole

MATERIAL	WEIGHT (g)	NO OF ITEMS	OBJECT NO	INTERIM BOX NO
Pottery				
Early Medieval	32g	2		
Medieval	4g	1		

2 sherds. Granitic fabric? Hard fired. (Grass-Marked ware) Early-medieval, 7th to 12th centuries AD.

1 sherd undiagnostic hand made Cornish Medieval Coarseware. 11th to 12th centuries.

Context No: (107) Fill of posthole

MATERIAL	WEIGHT (g)	NO OF ITEMS	OBJECT NO	INTERIM BOX NO
Pottery				
Early Medieval	157g	16		

2 co-joining sherds. Hand made (Granitic? fabric). Well fired. Early-medieval?

5 sherds including 1 basal angle sherd. Granitic fabric. (Grass-Marked ware) Early-medieval, 7th to 12th centuries AD. (Internal residue)

9 sherds. Granitic fabric. Hard fired. Exterior has grass-marking. (Grass-Marked ware) Early-medieval, 7th to 12th centuries AD.

Context No: (108) Fill of posthole [143]

MATERIAL	WEIGHT (g)	NO OF ITEMS	OBJECT NO	INTERIM BOX NO
Pottery				
Early Medieval	102g	8		

8 sherds Granitic fabric? Hard fired. Includes single basal angle and sherd with a rivet hole. (Grass-Marked ware) Early-medieval, 7th to 12th centuries AD. (Internal residue)

Context No: (109) Fill of posthole [110]

MATERIAL	WEIGHT (g)	NO OF ITEMS	OBJECT NO	INTERIM BOX NO
Pottery				
Early Medieval	772g	1		

1 complete vessel. (Granitic fabric). Gwithian Style ware Squat cooking vessel, flat bottomed. Hand made, wiped exterior. Everted rim (slightly beaded) with internal concavity (for lid seating?). Groove on rim interior to provide seating for ladle. Rim diameter 12cm. height of vessel 10cm. Early medieval, 6th to 7th centuries. (Internal residue).

Context No: (111) Fill of pit [112]

MATERIAL	WEIGHT (g)	NO OF ITEMS	OBJECT NO	INTERIM BOX NO
Pottery				
Early Medieval	38g	4		
Stonework				
Flint	1g	1		

2 sherds. Gabbroic fabric. Hard fired. Rim sherd from a bar-lip. Part of bar-lug cauldron. (Grass-Marked ware) Early-medieval, 7th to 12th centuries AD.

2 sherds. Gabbroic fabric. Hard fired. Scar from a bar-lug. Part of bar-lug cauldron. (Grass-Marked ware) Early-medieval, 7th to 12th centuries AD.

1 flint waste flake. Prehistoric.

Context No: (113) Fill of pit [112] below (111)

MATERIAL	WEIGHT (g)	NO OF ITEMS	OBJECT NO	INTERIM BOX NO
Pottery				
Early Medieval	59g	1		

1 bar-lug. Gabbroic fabric? Hard fired. Part of bar-lug cauldron. (Grass-Marked ware) Early-medieval, 7th to 12th centuries AD.

Context No: (131) Fill of posthole [132] possibly cut by [134]

MATERIAL	WEIGHT (g)	NO OF ITEMS	OBJECT NO	INTERIM BOX NO
Pottery				
Early Medieval	137g	5		
Metalwork				
Industrial debris	54g	4		

3 co-joining sherds. Gabbroic fabric? Hard fired. Forms rim from a bar-lip. Part of bar-lug cauldron. (Grass-Marked ware) Early-medieval, 7th to 12th centuries AD. (Internal residue)

2 sherds (1 a basal angle sherd). Gabbroic fabric? Hard fired. Sherd has rivet hole. (Grass-Marked ware) Early-medieval, 7th to 12th centuries AD.

4 fragments of iron tap slag. Slightly magnetic.

Context No: (133) Fill of posthole [134]

MATERIAL	WEIGHT (g)	NO OF ITEMS	OBJECT NO	INTERIM BOX NO
Metalwork				
Iron	8g	1		

1 iron object, possibly a nail.

Context No: (135) Fill of posthole [136]

MATERIAL	WEIGHT (g)	NO OF ITEMS	OBJECT NO	INTERIM BOX NO
Pottery				
Early Medieval	14g	1		

1 bodysherd. Gabbroic fabric. Hard fired. (Grass-Marked ware) Early-medieval, 7th to 12th centuries AD.

Context No: (146) Fill of posthole [147]

MATERIAL	WEIGHT (g)	NO OF ITEMS	OBJECT NO	INTERIM BOX NO
Metalwork				
Industrial debris	270g	1		

1 large fragment of slag or hearth bottom.

Context No: (149) Stakehole, part of 148

MATERIAL	WEIGHT (g)	NO OF ITEMS	OBJECT NO	INTERIM BOX NO
Metalwork				
Industrial debris	6g	1		

1 fragment of iron tap slag.

Context No: (150) Stake hole part of 148

MATERIAL	WEIGHT (g)	NO OF ITEMS	OBJECT NO	INTERIM BOX NO
Pottery				
Early Medieval	44g	7		

7 bodysherds. Gabbroic fabric. Hard fired (Grass-Marked ware?) Early-medieval, 7th to 12th centuries AD? (Internal residue)

Context No: (151) Fill of posthole [152]

MATERIAL	WEIGHT (g)	NO OF ITEMS	OBJECT NO	INTERIM BOX NO
Pottery				
Early Medieval	44g	1		

1 lug fragment. Gabbroic fabric? Hard fired. Part of bar-lug cauldron. (Grass-Marked ware) Early-medieval, 7th to 12th centuries AD.

Context No: (153) Fill of post-medieval ditch [154]. Same as (103)

MATERIAL	WEIGHT (g)	NO OF ITEMS	OBJECT NO	INTERIM BOX NO
Pottery				
Early Medieval	17g	2		
Medieval	26g	2		
Post-Medieval	27g	1		
Modern	3g	1		
Metalwork				
Iron	18g	1		

2 sherds undiagnostic.(Grass-Marked ware) Early-medieval, 7th to 12th centuries AD.

2 sherds Cornish Medieval Coarseware (Bunnings Park/Stuffle Ware). 12th to 14th centuries.

1 rimsherd North Devon Post-Medieval Glazed Red Earthenware flanged bowl. 17th to 18th centuries.

1 sherd Modern Yellow Glazed Stoneware. 19th to 20th centuries.

Context No: (170) Fill of linear gully [171]

MATERIAL	WEIGHT (g)	NO OF ITEMS	OBJECT NO	INTERIM BOX NO
Pottery				
Early Medieval	21g	3		

1 rimsherd from a flanged bowl (Granitic fabric?). Gwithian Style ware? Early medieval, 6th to 7th centuries.

1 rimsherd from a jar (Granitic fabric). Gwithian Style ware? Early medieval, 6th to 7th centuries.

1 sherd (Gabbroic fabric). Gwithian Style ware? Early medieval, 6th to 7th centuries.

Context No: (182) Cut of possible root disturbed posthole [183]

MATERIAL	WEIGHT (g)	NO OF ITEMS	OBJECT NO	INTERIM BOX NO
Pottery				
Early Medieval	12g	1		
Clay				
Other: Clay Pipe	15g	5		

1 sherd. Gabbroic fabric? Hard fired. (Grass-Marked ware) Early-medieval, 7th to 12th centuries AD.

5 fragments clay pipe stem. Ø = 4mm. 1590 – 1620.

Ø = 3mm. 1620 – 1650.

Ø = 1.5mm. 1750-1800.

Context No: (185) Stony deposit to west of ditch [154]

MATERIAL	WEIGHT (g)	NO OF ITEMS	OBJECT NO	INTERIM BOX NO
Pottery				
Early Medieval	30g	2		
Unknown	13g	5		
Metalwork				
Industrial debris	92g	2		

5 undiagnostic sherds Prehistoric pottery? (Granitic fabric). Small abraded, very undiagnostic. Iron Age/Romano-British? Possibly Early-medieval?

2 sherds. (Grass-Marked ware) Early-medieval, 7th to 12th centuries AD.

2 fragments of Iron tap slag.

Summary

Seven flints were recovered during the course of the work and are possibly the earliest artefacts found. Five were completely unstratified. The others came from contexts (102) and (113) and were clearly residual. All were waste flakes derived from pebble flint. Unfortunately none were diagnostic and they could be from Mesolithic to Bronze Age in date (c 10, 000 cal BC – 1000 cal BC).

A small, heavily abraded sherd in a Gabbroic admixture fabric was recovered an unstratified find. This sherd may date to the Middle Bronze Age (c 1500 cal BC) as this fabric is typical of that period. Due to the nature of the sherd this is, however, very tentative.

The largest number of finds to be recovered were of early medieval date. Two types of native ware were identified, Gwithian Style ware and Grass-Marked ware.

One whole vessel and five sherds of Gwithian Style ware were recovered. This was in a handmade, thin-walled, and hard-fired granitic fabric with well finished exteriors that in some cases have been wiped smooth. The whole vessel came from the fill of posthole (109), and three sherds came from context (170). The remaining sherds were unstratified.

The identification of this material is provisional as it is not in the typical fabric of the ware (which is usually gabbroic). This granitic ware may be a local variant. However, the forms of vessels are very similar to those known in Gwithian Style. Finding a complete vessel is incredibly rare. The vessel is a squat, flat bottomed cooking pot. The base is smooth with no evidence of sanding. It has an everted rim (slightly beaded) with internal concavity (for lid seating?). There is a groove on rim interior to provide vertical seating for a ladle. The rim diameter is 12cm while it stands to a height of 10cm. Other forms represented by the individual sherds include jars, and a flanged bowl. Gwithian Style ware dates between the late 5th to 7th centuries AD (Thorpe 2008).

The other native ware identified was Grass-Marked ware. Some 88 sherds of this material was recovered coming from contexts (100), (102), (103), (104), (105), (106),

(107), (108), (111), (113), (131), (135), (150), (151), (153), (182), and (185). This was a hand made ware, in both granitic and gabbroic fabrics. Three basic vessel forms of vessel are known within this ware, cooking pots, platters, and bar-lug vessels that have opposed internal suspension bars (or lugs) so that they may be hung over a fire to function as cauldrons. Within this collection only bar-lug cauldrons (and possibly cooking vessels) were identified. Grass-Marked ware dates between the 7th to 12th centuries AD (Thorpe 2008).

This site could prove to be a very important one in helping our understanding of the sequence of pottery that occurs in the early medieval period, in particular the native wares. If the identification of Gwithian Style wares is correct, it will be significant because according to our current understanding there is only a short time span in the 7th century AD when the use of these two wares overlapped (Thorpe forthcoming). Accurate dating obtained from residues from within the pots and charcoal from sealed contexts should help to refine this.

The deposition of a whole pot within a post hole is of course very unusual for this period as this hints at pagan practices in what was nominally a Christian region of Britain. This also raises the possibility that this vessel may have been curated for a while before deposition, so dates should be obtained from the residue within it, and charcoal from the posthole (if present).

The iron-rich tap slag and hearth bottom fragments are indicative that the smelting of iron had been done in the vicinity at this period.

There is a scattering of sherds from the later medieval and post-medieval periods across the site (unstratified in topsoil and from possible field boundary ditches). This is typical of assemblages obtained from most fields close to farming communities the finds being derived from domestic midden material being utilised for the manuring and improvement of the fields.

13 Conservation Treatment Report

Laura Ratcliffe (LR Conservation and Heritage Service)

Job/lab No: LR23	Object Name: Tremough vessel	Material: ceramic	Age:		
client: Historic Environment, Cornwall Council Kennall Building, Old County Hall, Truro, TR1 3AY Council job ref CCCP908069					
Photos:	X-rays:	Samples:	Previous Treatment: Block lifting on site		
Date Started: 7.2.2011		Date Completed:		Conserved By: Laura Ratcliffe	
Description:	Size:	Height	diameter	Thickness	No. Pieces
TIC10 (109)		111mm	128mm	12mm	two
<p>Small, complete ceramic vessel with an outward turning flat lip to the rim. There are two small areas of damage to the rim, one recent, probably occurring during excavation and one older one, fully covered in dirt.</p> <p>The fabric of the vessel appears dark, mostly black, as can be seen in an area of damage to the rim. Fabric appears to have small white and dark, coarse inclusions evenly distributed through the fabric.</p> <p>The vessel arrived in the lab damp and covered in soil from the burial environment, this soil is a mid brown colour and is relatively smooth. The interior of the vessel is full of soil which is the same colour but has inclusions of decayed granite in of 2-10mm in diameter. Some rootlets are visible in the soil as well on the surface of the fill.</p>					
Condition					
Stable, mostly complete but very crumbly around the rim area. Particularly where damage has already occurred.					
Treatment					
excavation					
The vessel required excavation to determine if there are any deposits within. This is best done whilst the fill is still damp. The exterior of the pot was wrapped in plastic and foam supports to ensure that if there are any cracks under the soil, once the fill is removed, the sherds will be					

supported and the pot will not collapse.

Excavation of the fill was carried out in one cm spits with a small spatula taking care not to knock the fragile rim, particular care was needed around the already damaged areas.

Nothing was found in the interior at all other than soil and the granitic inclusions. The bottom spit had a slightly higher proportion of smaller inclusions than the upper layers where the inclusions were more evenly distributed through the soil matrix. Nine 1cm spits were removed in total.

Not knowing the nature of the burial context but seeing the colour and texture of the soil adhering to the exterior of the vessel I would imagine the fill is one and the same.

cleaning

The vessel was left to dry and harden a little then cleaned using a soft brush and clean water under magnification. Should a surface deposit be present on the pit's interior it is required for carbon dating so care is required not to dislodge or contaminate anything under the soil.

It appears that there are areas of charring or dark deposits on both the outside and inside of the vessel, it is not clear whether these are remains of contents of the vessel or whether they might be evidence of use for cooking. It is not a continuous layer on the inside or the outside of the vessel and the colour of the pot is not uniform black, rather a tan sandy colour with darker interior fabric. The black is now restricted to staining of a dark substance inside and out.

After cleaning and in the area of the rim showing damage – a portion of the rim having been depressed slightly - a channel in the rim can be seen alongside a crack. Despite the damage to this area there does not appear to have been a spout protruding from the rim but there is a channel running from the inside of the rim to the outside, presumably for pouring contents out of the vessel.

Closer inspection of the dark deposits under high magnification shows that on the inside, the base and the sides up to about 1cm from the base are completely covered in a hard resinous black deposit. This is of varying thicknesses and seems to clump together in places forming 'bobbles' on the base of the vessel.

On the outside of the vessel there is staining on the sides but not on the base, as if it has been washed off at some point. The sides though vary from discolouration on the surface of the ceramic to up to 2mm thick clumps of deposit. This appears black and porous and is quite hard although easy to knock off.

Either of these would be suitable for C14 dating but the exterior material would be easier to remove and get a substantial sample from.

The area around the rim required some consolidation, acrylic resin paraloid B72 in acetone was used and the two small pieces that had become detached were re-adhered using the same.

The depressed sherd was not realigned as it is firmly in place and removing it would cause more damage to the fragile fabric. Its edges were consolidated with the B72 though with a 5% w/v application in acetone.

Recommendations

Handle with gloves to avoid contamination of the deposits which are required for analysis.

Handle with care as the deposits on the outside are easily dislodged and as contamination is to be avoided, consolidation is not possible. Rest on tissue paper at all times.

Images



The vessel during excavation

Before work begins.



Wrapped ready for excavation



Excavation:
Spit one removed



After spit 3 removed – fill continues to look the same through all 9 spits of earth. No notable inclusions.



Empty after spit 9 removed



the damage to the rim is much clearer



After cleaning of the vessel

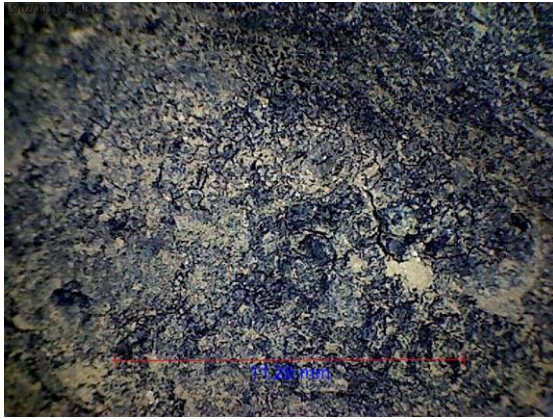


Interior residue visible



Groove in the rim

interior residue



exterior residue



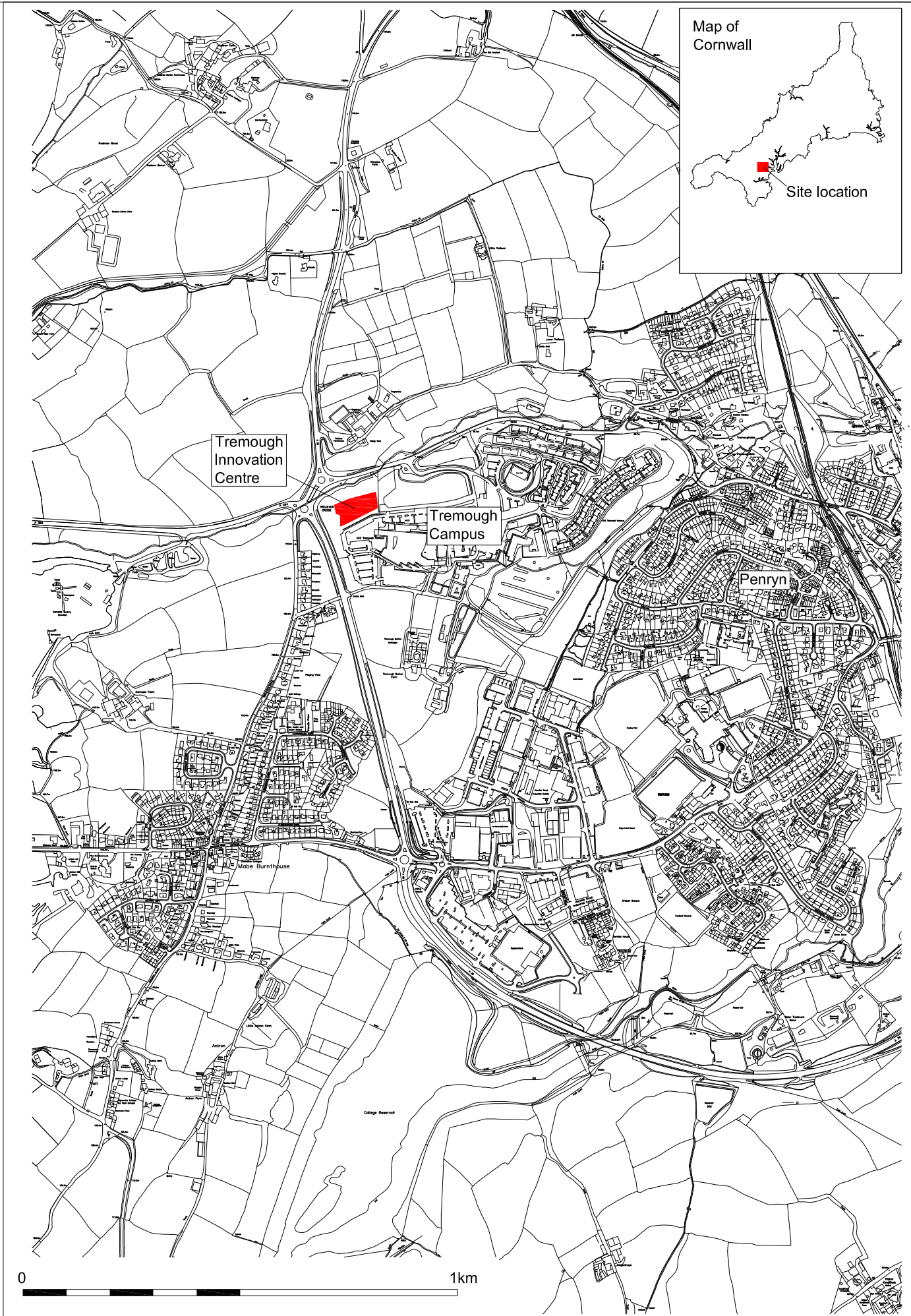


Fig 1 Location of Tremough Innovation Centre

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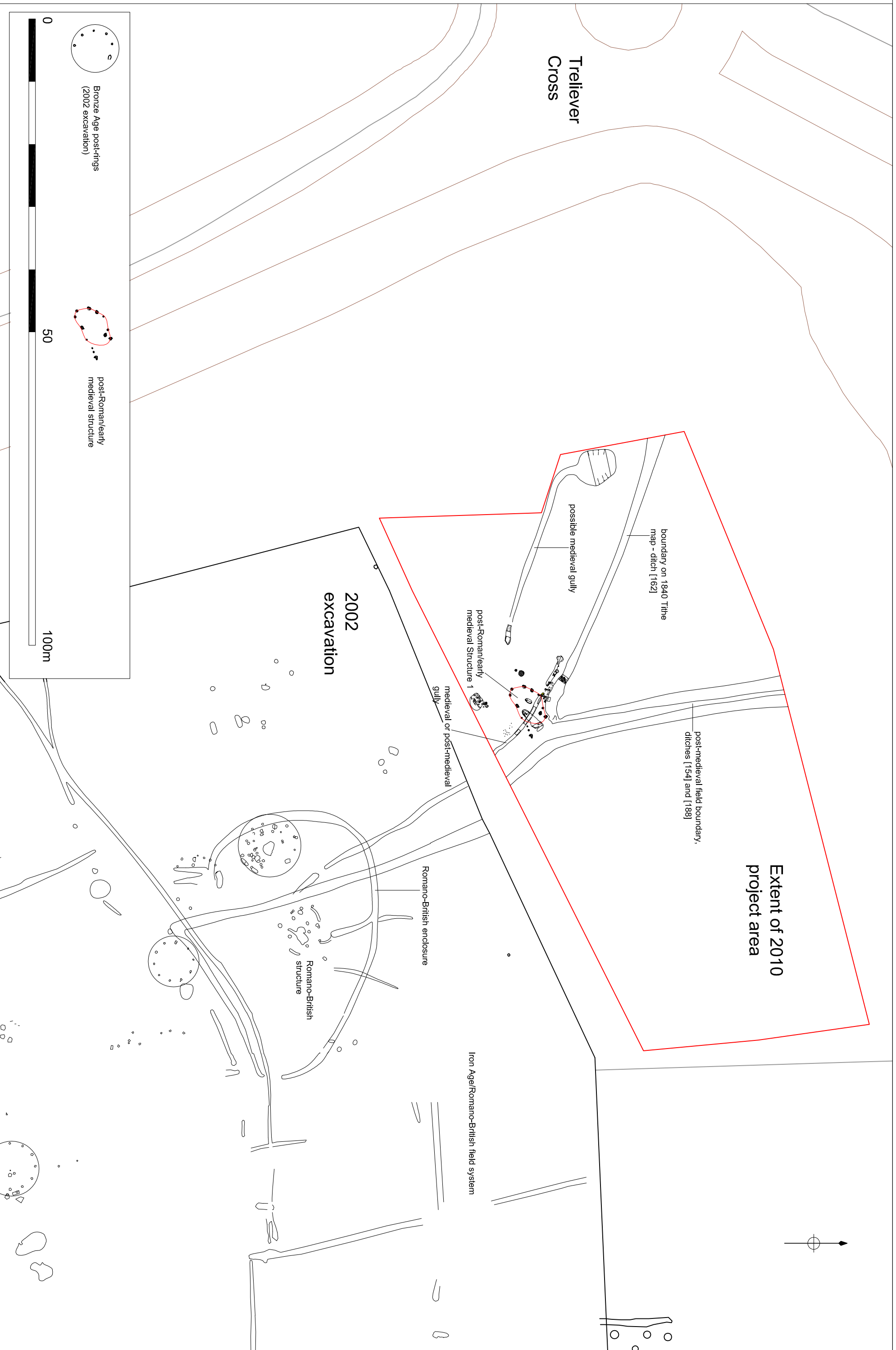


Fig 2 The TIC project area and the surrounding archaeological landscape

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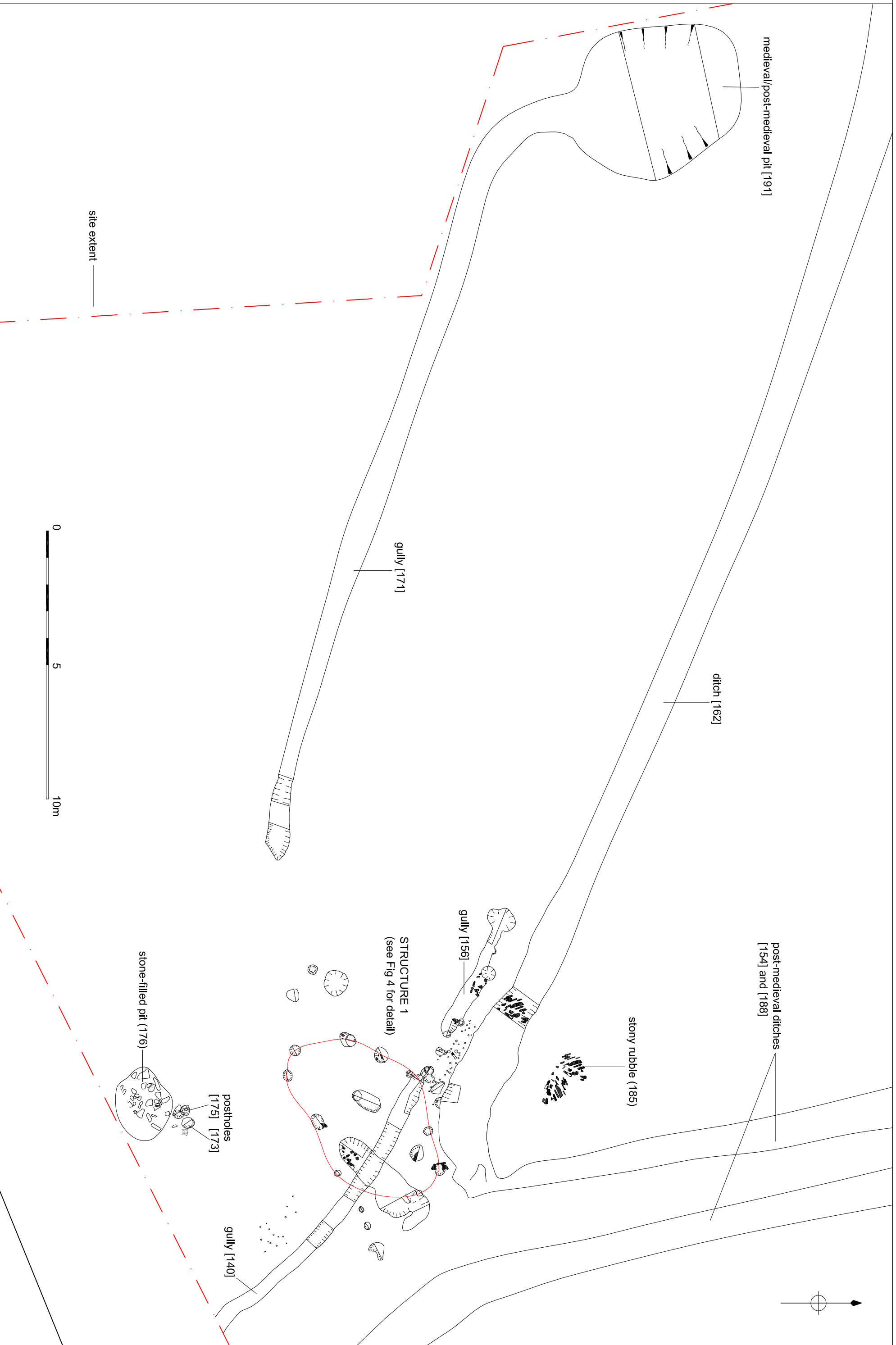


Fig 3 Overall site plan of excavated features

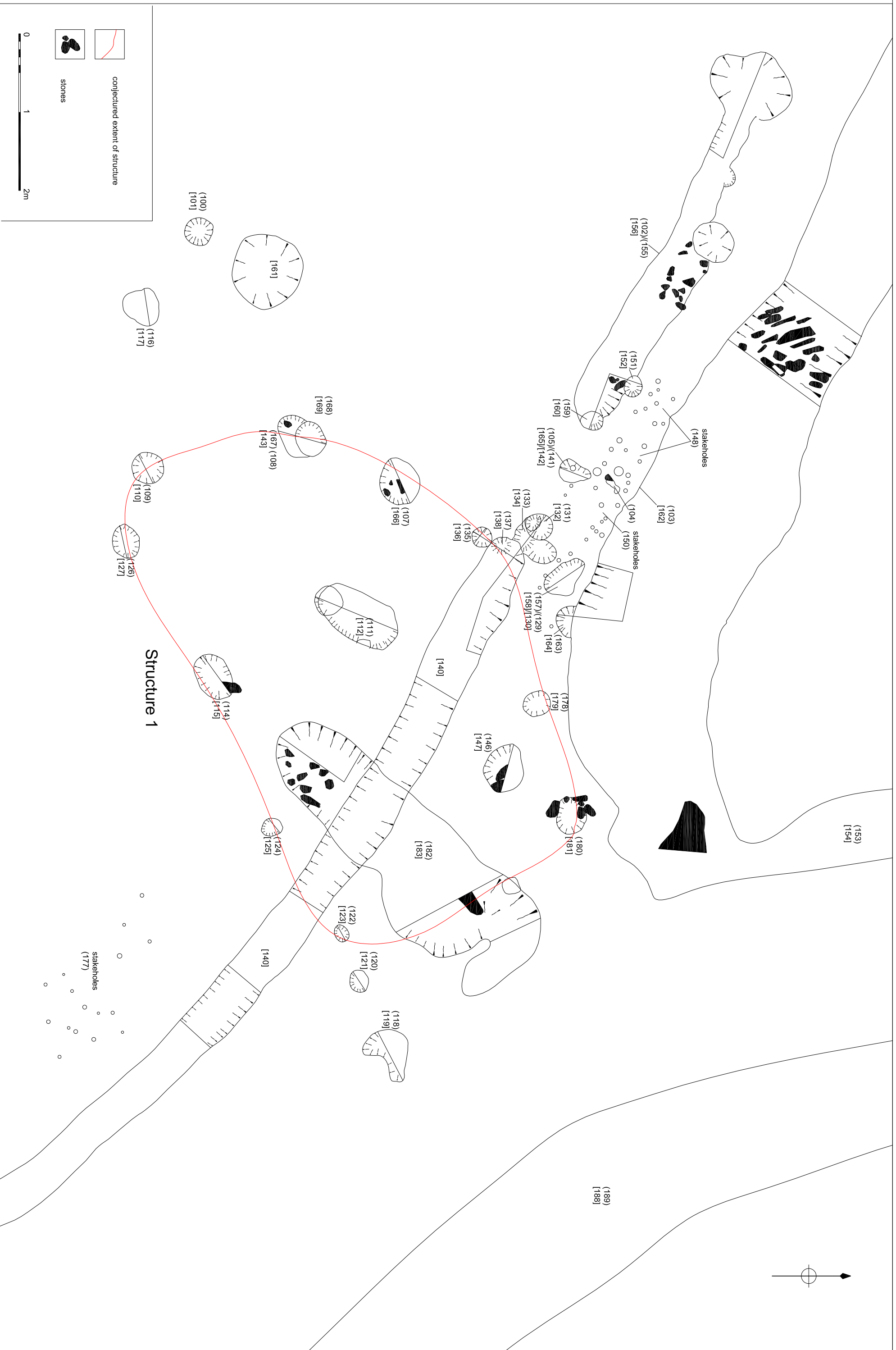


Fig 4 Detail of the post-Roman/early medieval building Structure 1

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