

THREE SUCCESSIVE IRON AGE ROUNDHOUSES AT OLD PARK FARM, PINHOE

(NGR SX 9619 9542)

Results of an Archaeological Excavation

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On behalf of:
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archaeology

THREE SUCCESSIVE IRON AGE ROUNDHOUSES AT OLD PARK FARM, PINHOE

By ALEX FARNELL

With contributions by Henrietta Quinnell, Cressida Whitton and Imogen Wood

An archaeological excavation undertaken by AC archaeology on land at Old Park Farm, Pinhoe, revealed evidence for three successive roundhouses, represented by over-lapping ring gullies, dated to the Iron Age period. The assemblage of pottery dates from the Early through to the Late Iron Age and was produced from locally sourced clays.

INTRODUCTION

An archaeological excavation on land at Old Park Farm, Pinhoe, was undertaken by AC archaeology during December 2017. The site is situated on the northern outskirts of Exeter, to the north of the village of Pinhoe and to the south of Poltimore (SX 9619 9542; Fig. 1). It occupied part of an agricultural field, which was earmarked for the extension of residential development which had already commenced on adjoining land. It lies between c. 56-58 m aOD (above Ordnance Datum), with the underlying geology recorded as interbedded mudstone and sandstone of the Crackington Formation (BGS 2018).

ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The overall development site had been the subject of geophysical survey (Stratascan 2013) and subsequent trial trenching (Barber 2013). The trial trenching identified a series of boundary ditches and field drains of probable 19th century date and a curvilinear anomaly (targeted by Trench 3) was found to be of possible prehistoric date with two prehistoric worked flints recovered. An open area excavation measuring 25m by 25m subsequently targeted the features in this location and it is this phase of works that is reported here. The excavation revealed three inter-cutting ring gullies representing successive roundhouses of Iron Age date.

RESULTS

Introduction

The overlying soil sequence comprised a 0.25m thick layer of topsoil only composed of dark greyish brown clayey loam. Natural subsoil comprised clays interbedded with silt and sandstone outcropping. A total of five archaeological features was exposed (Figs 2-3) comprising three intercutting penannular gullies (F102, F113 and F114) and two pits (F174 and F176). The three gullies closely overlay one another and clearly represent three successive phases of roundhouse construction.

Penannular gullies (Phases 1-3)

Three penannular ring gullies were recorded (Fig. 4). They are described below in stratigraphic sequence beginning with the earliest.

Phase 1 (F114)

Penannular gully F114 enclosed an area with an internal diameter of 15 m and terminated in rounded terminals to either side of a probable entrance gap. The entrance was positioned to face south-east and was 6.5 m wide. The gully measured up to a maximum of 0.65 m wide and 0.23 m deep, with nominal dimensions of 0.46 m wide and 0.16 m deep and was typically 'U' shaped in profile with concave sides and a flat to concave base. Nine segments were excavated and, with the exception of the two terminals, each contained a single fill composed of mid reddish to yellowish brown silty clay or clay, largely derived from the surrounding natural subsoil. The terminals each contained two fills, with the southern one containing a lower fill (144) composed of mottled yellowish and reddish brown sandy clay loam and an upper fill (145) of mid reddish brown clay (Fig. 5a) which produced 12 sherds of Early to Middle Iron Age pottery. The northern terminal contained a lower fill (147) composed of dark brown clay and an upper fill (148) of dark reddish brown silty clay (Fig. 5b). Lower fill 147 produced a further 132 small sherds of Middle Iron Age pottery, many of which were from a single vessel. Slight irregularity in the gully was noted, particularly on the southern side (Figs 5c-d), however nothing indicated structural elements within the gully, such as post or plank settings and there was no clear re-cutting.

Phase 2 (F113)

Penannular gully F113 was closely aligned to, and partially truncated F114. It was circular in plan, enclosed an area with an internal diameter of 16m, and terminated in rounded terminals to either side of a probable entrance (Fig 5e). The entrance was positioned to face south-east and measured 8 m wide. The gully measured up to a maximum of 0.72 m wide and 0.23 m deep, with nominal dimensions of 0.5 m wide and 0.12 m deep and was typically a wide 'U' shape in profile with concave sides and a flat to concave base. Ten segments were excavated including the two terminals and each contained a single fill composed mainly of reddish and yellowish brown silty clay, largely derived from the surrounding natural subsoil. Five sherds of South Western Decorated Middle Iron Age pottery were recovered from ring gully fill 168 (Fig. 5f).

Phase 3 (F102)

Penannular gully F102 lay further to the north-west by 3 m and cut the backfill of both earlier gullies F114 and F113 where it crossed them. It was circular in plan, enclosed an area with an internal diameter of 13.5 m and terminated in rounded terminals to either side of a probable entrance. The entrance was positioned to face east-south-east and measured 6 m wide. A small pit (F174) was positioned on the arc of the gully, close to the centre of the entrance. The gully measured up to a maximum of 1.03 m wide and 0.29 m deep, with nominal dimensions of 0.81 m wide and 0.21 m deep and was for the most part a wide 'U' shape in profile with generally concave sides and base (Figs 5g-k). Eleven segments were excavated, including the two terminals, with each containing between one and two fills composed of reddish to yellowish brown clay or silty clay. The southern terminal produced 90 sherds of Late Iron Age pottery, with a further eleven small sherds recovered from elsewhere in the gully. In addition, a single worked flint was recovered.

Pits

Pit F174

This small pit (Fig. 5l) was positioned central to ring gullies F114 and F113 and on the arc of gully F102 at the approximate centre of its entrance. It measured 0.6 m in diameter by 0.24 m deep, with steep sides and a flat base. It contained a single fill (175) composed of dark reddish brown clayey loam mottled with red and yellow clay with common sandstone and highly degraded sandstone pebbles and cobbles, manganese flecks and charcoal fragments. It contained 28 sherds of pottery, one of which was of Middle Iron Age South Western Decorated ware, and a small flake of undiagnostic worked flint.

Pit F176

This small feature was positioned approximately 2 m from the outer edge of ring gully F113. It measured 0.45 m in diameter by 0.1 m deep, with an irregular profile (Fig. 5m). It contained a single fill composed of reddish brown clay with occasional charcoal towards the top. No finds were recovered.

THE FINDS

By Henrietta Quinnell with petrographic contribution by Imogen Wood

Prehistoric pottery

In total, 282 sherds (799 g) of prehistoric pottery were recovered. The assemblage is presented in Table 1.

Comment on location, form and decoration

Earliest ring gully F114 (145) contains sherds in Fabric 3, with a slack neck sherd which belongs more at the end of the Early Iron Age than later: it is very unusual for Middle Iron Age vessels not to have the neck defined by at least a single incised line. Fill 147 has a sherd with an incised line which is probably Middle Iron Age.

Middle ring gully F113 (168) contains sherds with incised lines infilling part of a geometric design, very much a feature of South Western Decorated (SWD) Middle Iron Age ceramics.

Latest ring gully F102 (108) contains a bead rim and fill 125) includes two bead rims, probably from different vessels. The latter have the appearance of vessels of the Late Iron Age Plain Ware tradition.

Pit F174 (175) includes a sherd with SWD decoration.

Context	Details	Fabric 1 Exeter volcanic		Fabric 2 Ludwell Valley		Fabric 3 Ludwell Valley Limonite rich		Totals	
		sherds	weight	sherds	weight	sherds	weight	sherds	weight
140	Fill earliest ring gully F114			1	10			1	10
145	Fill earliest ring gully F114 terminal					12	44	12	44
147	Fill earliest ring gully F114 terminal	8	45	124	292			132	337
Total F114		8	45	125	302	12	44	145	391
168	Fill middle ring gully F113	5	27					5	27
108	Fill ring gully F102	3	8					3	8
123	Fill ring gully F102 terminal			89	261	1	10	90	271
125	Fill ring gully F102			11	25			11	25
Total F102		8	35	100	286	1	10	104	304
175	Fill pit F174			25	54	3	23	28	77
Totals		16	80	250	642	16	77	282	799

Table 1: Pottery presented by sherd number and weight in stratigraphic sequence

Fabrics

Ludwell Valley fabrics dominate the assemblage and are consistent with Taylor's Ludwell Valley group as defined for the Middle Iron Age assemblage for Clyst Heath School (Quinnell and Farnell 2016, 130). The common sandstone rock fragments, quartz, feldspar, mica and siltstone are characteristic of this fabric in the Exeter area. Fabric 3 has fewer inclusions than Fabric 2 with a more silty clay matrix and common well-rounded limonite grains, which is a variant noted by Taylor at Clyst Heath School. Fabric 1 is less common and represents an Exeter Volcanic fabric with common sub-angular to sub-rounded volcanic rock fragments 1 mm-0.5 mm with common quartz grains 0.7 mm and less abundant in the groundmass, comparable with the Peacock's Group 6 Volcanic fabric (Peacock 1969, 51). This strongly suggests that the clays for the whole assemblage were locally sourced from the Permian geology of the Exeter area.

Dating

The two radiocarbon dates, one from the earliest ring gully (F114) and one from the latest (F102), are almost identical (see below) and are unable to provide chronological definition. F114 ceramics may have an Early as well as Middle Iron Age component. The limited F113 material is Middle Iron Age, while F102, the latest ring gully, contains bead rim pieces which are likely to be of Late Iron Age Plain Ware. A published comment on later Iron Age ceramic chronology is contained in the discussion of the Middle Iron Age Clyst Heath assemblage (Quinnell and Farnell 2016, 135-7). The limited ceramic evidence from Old Park Farm suggests a longer sequence for the ring gullies than the similar radiocarbon dates. The presence of Early Iron Age activity was indicated at another site

at Old Park Farm, where dates calibrating to 541-392 cal BC (94.8%) and 366-200 cal BC (95.4%) were obtained on charcoal from ditches of a possible Iron Age or Roman period enclosure (Mudd and Weavill 2017, 113).

Lithics

Two small flakes, one with nodular cortex, one with usewear or damage, come from contexts 127 and 175; it is likely they are residual from earlier activity and cannot be dated at all closely.

PALAEOENVIRONMENTAL ASSESSMENT

By Cressida Whitton

The aim of the palaeoenvironmental assessment was to recover and assess environmental evidence from excavated archaeological features and deposits. Five bulk soil samples were recovered from deposits associated with the three ring gullies and one was recovered from pit F174. The samples were processed using standard AC archaeology flotation/sieving methods in a siraf-type tank. The largest residue (5.6 mm mesh sieve) was hand-sorted for artefacts and ecofacts, using an illuminated hand lens. Smaller residues (2 mm/500 micron) and the 250 micron flot, were sorted under a stereo-binocular microscope (10-30 x magnification).

All three ring gullies contained moderate amounts of mostly oak, variable size, trunk/branchwood charcoal. The rounded charcoal fragments were water-eroded and slightly mineralised and the sample sediment was clayey, all indicative of waterlogging in the gullies, but probably only intermittently, since uncharred plant macrofossils did not survive. Natural waterlain silting rather than deliberate infilling, appears to have been the main deposition process in the gullies, but there is also evidence for background domestic activity, with charcoal present in moderate amounts and occasional charred plant macrofossils. No hammerscale (iron smithing waste) fragments were found in the smaller sample residues to indicate craft/metal object production. Charred grains, hazelnut shell fragments and weed seeds were present, and two cereal chaff fragments are indicative that some crop processing, such as threshing, may have been taking place in the vicinity. Overall, some domestic/agricultural activity is indicated at the site, but the environmental evidence recovered from the shallow gullies and pit was very limited and the features too truncated to provide reliable information on settlement activities.

RADIOCARBON DATING

Suitable material for radiocarbon dating, including grain, hazelnut or roundwood charred twigs were recovered from the palaeoenvironmental samples. It was thought potentially worthwhile to obtain two dates, one from the chronologically earliest ring gully (F114) and one from the latest ring gully (F102), which it was hoped may help to refine the longevity of the use of the site. Two fragments of charred hazelnut shell were selected for dating; these were chosen as suitable short-lived material and submitted to the Scottish Universities Environmental Research Centre.

The AMS radiocarbon date results are given in Table 2. Calibration of the results has been performed using the data set published by Reimer *et al.* (2013) and performed using the program OxCal4 (online at: c14.arch.ox.ac.uk).

Material	Context	Lab no.	Result BP	$\delta^{13}\text{C}$ (‰)	Cal BC
Hazelnut shell: <i>Corylus avellana</i>	Lower fill (111) of phase 3 ring gully F102	SUERC-77619 (GU47115)	2124±30	-22.8	347 - 52
Hazelnut shell: <i>Corylus avellana</i>	Upper fill (145) of phase 1 ring gully F114 southern terminal	SUERC-77620 (GU47116)	2128±30	-26.3	350 - 52

Table 2: Radiocarbon dating results (calibrated to 95.4% probability)

The two dates are indistinguishable from one another. The calibrated results fall within the Middle to Late Iron Age. To a certain extent the dates serve to confirm the expectations of the pottery recovered, but are unable to provide further refinement for the longevity of activity on the site. In particular they do not match the expectation of an Early Iron Age date for the earliest Iron Age use of the site, as indicated by the pottery.

DISCUSSION

A succession of three roundhouses has been identified with a possible start date in the Early Iron Age, with some Middle Iron Age activity and use continuing in to the Late Iron Age. Each was a single penannular gully representing a separate phase of construction or subsequent rebuilding on a similar, although slightly altered footprint. No structural postholes, or other features relating to each structure were present, leaving little to illuminate the architecture of the roundhouse. There was also no evidence noted within any of the three gullies to indicate that they had ever functioned as a 'groove' or 'trench' to hold the timbers of a structure. It is most likely that gullies F102, F113 and F114 represent 'eaves drip gullies' which would have enclosed a structure and that the absence of other structural features is the result of loss through ploughing.

It is relatively common for roundhouses of this period to survive only as the encompassing penannular gully, as with examples recorded at Long Range on the A30 (Fitzpatrick *et al.* 1999) and at Clyst Heath in Exeter, although the latter were somewhat smaller in diameter (up to 10m) and there was a suggestion that they may have been footings trenches (Quinnell and Farnell 2016, 106). Further examples, from Langland Lane and Blackhorse on the A30 (Fitzpatrick *et al.* 1999) and Twinyeo in the Bovey river basin (Farnell 2015), had partial preservation of the structure internal to the eaves drip gully. For the most part this was two or four posts inside the entrance, representing a porch, presumably indicating that these timbers were sited more securely in deeper postholes than the rest of the structural uprights. One example, from Twinyeo (Farnell 2015, 197-200, *Structure 2*), despite heavy truncation which had removed parts of the eaves drip gully, survived as a narrow groove or slot which, may have been the footings trench for a plank or wattle wall, with a number of possible associated postholes.

Less commonly encountered is the intensity of reconstruction in the same location. The four roundhouses at Clyst Heath in Exeter were close to one another and almost overlapping, with one showing signs of having been re-worked (Quinnell and Farnell 2016, 100-10) and two overlying gullies were recorded at Blackhorse on the A30 (Fitzpatrick *et al.* 1999). At Pinhoe, the first two phases lie almost exactly on top of one another only shifting slightly to the north. In the third phase, however, the gully had been moved some 5 m to the north-west and clearly encroached on the location of the internal structure of the phase 2 building. Its entrance had also been rotated slightly to the north to face east of south-east rather than south-east. This reworking and rebuilding of the house certainly suggests longevity of occupation on the site, although whether this was continuous

or indicates a return to the location following a hiatus is uncertain. It may also speculatively suggest restricted available space to rebuild in or a symbolic attachment to the location.

The distribution of finds and charred remains from the site is worthy of note. Pottery had principally been deposited in the terminals of phase 1 gully F114 and the southern terminal of phase 3 gully F102, with smaller quantities from the southern side of F102, on the west side of phase 2 gully F113 and in pit F174. The concentration of domestic material at the terminals is a factor relatively common to this feature type. Charred remains were present in small quantities only and appears to be the result of discard and dumping of hearth waste and was exclusively recovered in addition to pottery sherds.

The purpose of pit F174 remains unclear and it is not certain which phase of roundhouse it is related to. Its location would either place it in the middle of the entrance to the final phase or close to the centre of either of the earlier two phases; the presence of a sherd of Middle Iron Age South Western Decorated pottery perhaps prefers the latter association which is supported by its contents which are clearly comparable with the backfill material of the southern terminal of phase 1 ring gully F114. As a pit positioned in the interior of the putative roundhouse, its purpose is still ambiguous. Neither its position nor contents would suggest that it is an isolated structural posthole, suggesting perhaps a domestic function, and although a lack of clear *in situ* burning makes for an uncertain interpretation as a hearth, the presence of possibly heat-affected stone in the backfill is potentially a further clue. It is hard to see its function as a structural posthole in relation to a roundhouse positioned within earliest ring gully F102, although, alternatively, it could perhaps have been a symbolic act to deposit items in a pit positioned at the entrance to the house.

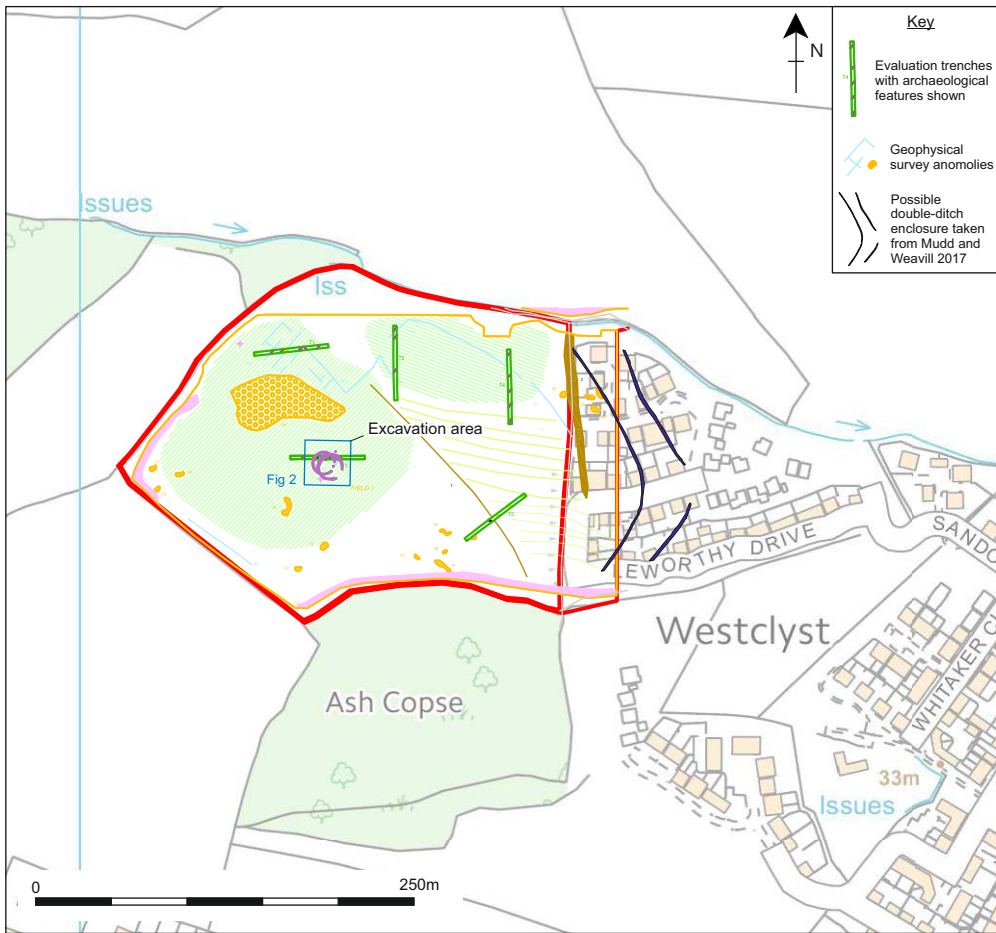
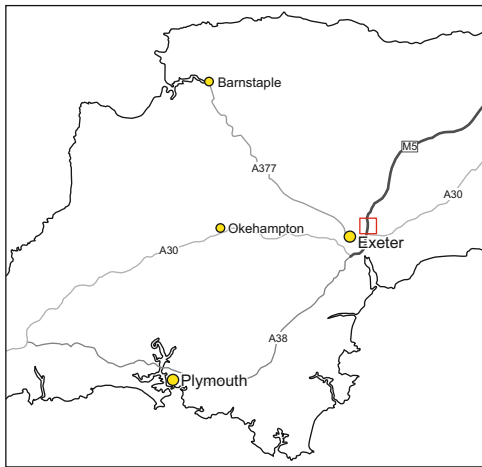
The site is positioned on an elevated spur of land at around 56-58 m aOD with expansive views over the Clyst river valley. The land continues to rise to the west and south-west up to Beacon Heath at 120 m aOD. At the east end of the spur extensive archaeological works have been undertaken and part of a possible later prehistoric or Roman double-ditch enclosure was identified which potentially enclosed the position of the roundhouses described here (Mudd and Weavill 2017, annotated on Fig. 1). The previous geophysical survey showed these ditches had a further (third) parallel one within the current site area and this was tested by trenching and found to be post-medieval in date (Barber 2013). The previous excavation found that there was 'minimal' dating evidence for the double-ditch enclosure and that it could not be regarded as 'securely of this [Iron Age] date' (Mudd and Weavill 2017, 113, 130), so it is considered doubtful that they are contemporary with any of the roundhouses and are unlikely to have formed an enclosure. It is proposed here, that although in a slightly elevated position, the successive phases of single roundhouse stood alone and unenclosed, a favoured site, one that becomes ancestral over time through repeated use, perhaps by an extended family, but not a site that evolved into an extensive settlement.

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PROJECT

Land at Old Park Farm, Pinhoe, Devon

TITLE

Fig. 1: Location of site, evaluation trenches and excavation area in relation to the interpreted results of geophysical survey





PROJECT

Land at Old Park Farm, Pinhoe, Devon

TITLE

Fig. 2: View of the excavation area, showing the three Iron Age ring gullies, looking east towards the Clyst River valley (AC archaeology)



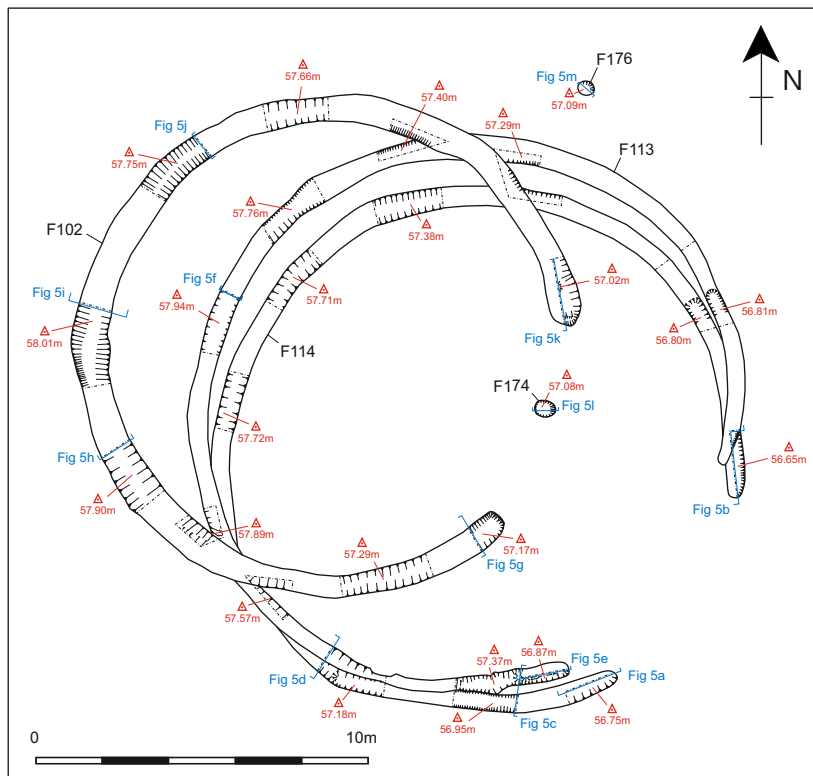
PROJECT

Land at Old Park Farm, Pinhoe, Devon

TITLE

Fig. 3: View of the excavation area, showing the three Iron Age ring gullies, looking northwest (AC archaeology)



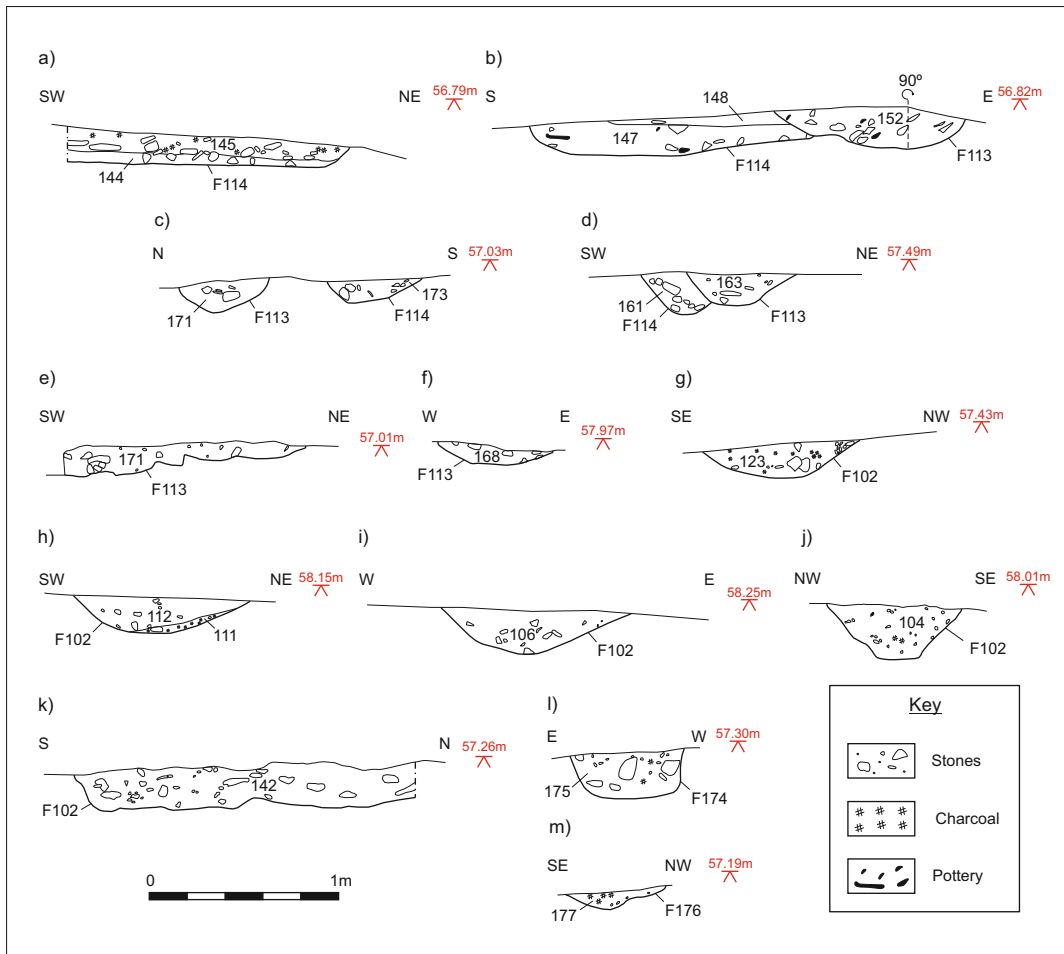


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Fig. 4: Plan of excavation area



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Fig. 5: Selected sections

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