T V A S SOUTH

A Late Iron Age Settlement at Station Road, Plumpton Green, East Sussex

An Archaeological Excavation

by Sean Wallis and Steve Ford

Site Code: SRP14/174

(TQ 3649 1672)

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TVAS South

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Summary

Site name:	Land to	the east	of Station	Road,	Plumpton	Green,	East Sussex

Grid reference: TQ 3649 1672

Planning reference: LW/17/0873

Site activity: Excavation

Project manager: Sean Wallis

Site supervisor: Sean Wallis

Site code: SRP14/174

Summary of results: An excavation following up on the findings of an earlier evaluation explored a small settlement site of Late Iron Age (1st century BC to 1st century AD) date. The chronology was established by two radiocarbon dates and an absence of Roman pottery. The settlement comprised a rectangular enclosure containing a miscellany of pits and postholes, and two roundhouses, with a post-hole structure being replaced by a ring-gully one. No faunal remains were recovered but unusually for this region, sieved samples recovered charred cereals and crop processing waste, presumably from wheat and oats grown nearby. This excavation adds to the small corpus of sites now recorded for the Weald claylands.

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by Sean Wallis and Steve Ford with contributions by Luke Barber, Ceri Falys and Rosalind McKenna

Report 14/174d

Introduction

An archaeological excavation was carried out to the east of Station Road, Plumpton Green, East Sussex (TQ 3649 1672). The work was commissioned by Mr Adam Light of Sigma Homes Ltd, 44-46 Springfield Road, Horsham, West Sussex, RH12 2PD.

Planning permission (LW/17/0873) had been granted by Lewes District Council to develop the site for housing. The consent was subject to standard planning conditions (27 and 28) relating to archaeology and the historic environment, which required the implementation of a programme of archaeological work prior to the commencement of the new development. As a consequence of the possibility of archaeological deposits on the site which may be damaged or destroyed by the development, following initial desk-based assessment (Baljkas 2017) and geophysical survey (Dawson and Lewins 2014) field evaluation was carried out to provide information on which to base a mitigation strategy (Wallis 2020). Although the geophysical survey found nothing of obvious archaeological interest the trenched evaluation demonstrated the site's potential and showed it to contain a significant number of features of Iron Age date. As these features would be damaged or destroyed by the construction work, an open area excavation was required to mitigate these effects and to enhance understanding of the nature of these features.

The field investigation was carried out to a specification approved by Mr Neil Griffin, the East Sussex County Council Archaeological Officer, who advises Lewes District Council. The fieldwork was undertaken between 15th and 26th February 2021, and the site code is SRP 14/174. The archive is presently held at TVAS in Reading and will be deposited with a suitable depository in due course. The preferred depository for the site archive and finds is Lewes Museum.

Location, topography and geology

The site is located to the east of Station Road, close to the historic core of Plumpton Green (TQ 3649 1672), to the north of Brighton and north-west of Lewes (Fig. 1) in the Low Weald close to the north edge of the South Downs. The majority of the development site consists of three grassy fields which have been used for grazing sheep until recently, and are accessed via a narrow track leading from Station Road. It is largely bounded by further fields (Fig. 2). The excavation area was in the north-east of the overall development site and slopes gently down towards a stream in the

east and lies at a height of approximately 33m aOD. The underlying geology consists of Weald Clay deposits (BGS 2006) which comprised a light yellow brown sandy clay.

Archaeological background

Prior to this project, the environs of the site contained relatively few recorded sites or finds of archaeological interest. The majority of entries within the county Historic Environment Record are for the Medieval and Post-medieval periods, usually for listed buildings. There have been a small number of finds of prehistoric flint work of Mesolithic and Neolithic date. Most relevant to the current site, an evaluation to the south-west on Riddens Lane, (Thompson 2014) had revealed Iron Age and Roman features indicative of occupation partly overlapping in date with our site here: there was also undated evidence for iron smelting.

The Evaluation

Preliminary work on the site comprised desk-based assessment (Baljkas 2017), geophysical survey (Dawson and Lewins 2014) and a sixteen-trench evaluation (Wallis 2020) (Fig. 2). The geophysical survey revealed no anomalies of archaeological interest but two of the evaluation trenches (13 and 14) revealed a ditch, pits and Iron Age pottery. This area was therefore targetted for the excavation.

Objectives and methodology

The aim of the project was to excavate and record any archaeological deposits and features within the site where features had been discovered during the evaluation.

The Excavation

The excavation area was stripped down to the top of the underlying natural geology, which necessitated the removal of between 0.21m and 0.48m of topsoil (50) and subsoil (51) deposits. The area was stripped by a mechanical excavator fitted with a toothless ditching bucket, under constant archaeological supervision. The excavation area covered an area of approximately 1220 sq m (Figs 2 and 3).

Appendix 1 provides a summary of all of the excavated features, with dating evidence, including the features from the evaluation.

The site is regarded as belonging to a single phase of activity of Late Iron Age date. The two radiocarbon dates obtained (Table 6) do not overlap but come from two structures (1002 and 1001), one thought to be a replacement of the other. At the extreme range of the dates, the site could span from the Middle Iron Age through into early Roman

times. There is a 30% chance that occupation commenced significantly earlier than 200BC but if structure 1002 is replaced by 1001 then a shorter chronology, starting at c. 100BC might be more likely. This chronology is broadly in line with the pottery chronology. With regards to the abandonment of the site, no Roman pottery has been recovered indicating that the site had gone out of use before Roman pottery was available.

Enclosure Ditch 1000

Ditch 1000 is considered to be an enclosure though only two sides forming an L-shape were recorded in the excavation trench with the full extent of the ditch in either direction not known (Pls 5 and 6), though it was not visible in trench 12 to the east. Some later Bronze Age enclosures are recorded of L-shape form but here the plan is simply a product of the restricted area of excavation. No entrance was recorded and in plan, the ditch was very sinuous. It was examined by eight slots (8, 9, 18, 19, 107, 108 and 110). This revealed that the ditch was of variable width, 0.66–1.8m wide, and more uniform in depth 0.16–0.4m deep. It usually contained just a single fill. It contained 196 sherds of pottery along with 1268g of fired clay/daub, with most of the pottery and all of the daub coming from the two excavated slots adjacent to roundhouse 1002. A few sherds of possible Saxon pottery were also recovered from slots 18 and 19 but are considered at best intrusive if not misidentified.

Roundhouse 1002

This post-built roundhouse lay immediately to the south-west of ring gully 1001. It consisted of 11 postholes (14, 16, 20-4, 26-7, 31-2), forming a good circle with a diameter of 8.3m. There were two gaps in the circuit on the east and west sides though the latter gap may be due to the presence of a later treehole (29/30). The postholes forming the circuit were quite variable in size and form ranging in diameter from 0.3m to 1m and depth from 0.09m–0.41m. Although described as postholes, several of the features, if found in isolation, would have been described as pits or scoops. Feature 32 was unusual in having 4 fills, with a large volume of cereal chaff (Pl. 4). These features combined contained 73 sherds of pottery with internal postholes producing another 11 sherds. Some 486g of fired clay/daub came from five of the circuit postholes, most of which (446g) was daub from posthole 21. Just 2g came from one of the internal features.

There were three internal postholes (15, 17, 25) of uncertain function.

A sample of ash charcoal from pit 32 (87) returned a radiocarbon date of 208-92 cal BC (Table 6: UBA45313) but at a probability of only 68% and with a 25% chance of being a century earlier.

Ring gully 1001

This structure comprised c. 60% of a circular gully with a diameter of 9.2m (Pls 8, 11, 12). It formed a C-shaped plan on the western side of the structure and terminated at either end. A further 2m length of ring gully (47-8) lay on the eastern side. The northern terminal (103) cut another 2m length of gully (106/104). The ring gully was variably 0.12—

0.69m wide and 0.06–0.28m deep, with a single fill. A sample of carbonized residue from a pot in slot 42 (97) returned a radiocarbon date of 45 cal BC - cal AD79 (Table 6: UBA45314).

There was a central pit (43) and six other internal pits and postholes, not obviously structural but presumably related. Some 93 sherds of pottery came from the ring gully (both segments) along with 21g of fired clay/daub.

Other features

A small number of other features lay outside of these two structures.

Cremation Burial

Cremation pit 35, of the south-east of ring gully 1001, had a diameter of 0.34m and depth of just 0.08m with a single cremated bone-rich fill. It contained 690g of burnt bone and is classified as a burial rather than a deposit of pyre debris. The burial was likely to be the remains of a single adult of indeterminate sex. Some 12g of fired clay/daub were also recovered but no dating evidence.

Gully 105

There was a short length of gully (105) of uncertain function which contained a single sherd of LIA pottery. It was 0.35m wide and 0.13m deep.

Scoop?

A possible pit (2) found in the evaluation was revealed to be a scoop, or possibly a remnant of old subsoil and was 0.14m deep and about 2m across. It contained four LIA sherds and 134g of fired clay/daub.

<u>Pit 1</u>

Elongated pit 1 was 2m long and 0.5mwide 0.16m deep with a shallow bow-shaped profile. It contained 17 pottery sherds and 40g of fired clay/daub.

Other pits and postholes

There were seven other pits (10-13, 28, 33, 36) and a posthole (34) on the site. All except features 11 and 12 produced Iron Age dating evidence. These usually oval pits were of modest size between 0.56-0.9m in maximum length but shallow, being 0.08-0.24m deep, all usually with bowl-shaped profiles. Several of the features forming the roundhouse are similar in form and size to these pits.

Table 1: Summary of pits/postholes

Cut	Fill	Diameter (m) or Length x breadth (m)	Depth (m)	Finds
10	62	0.9	0.10	4 sherds
11	63	0.78	0.08	1 sherd
12	64	0.62	0.18	
13	65	0.92	0.22	57g daub
28	80	0.42	0.19	24 sherds
33	88	0.50	0.24	9 sherds
34	89	0.30	0.24	3 sherds, 3g fired clay
36	91	0.90 x 0.69	0.09	3 sherds, 4g fired clay

Finds

The Pottery by Luke Barber

The archaeological work recovered 503 sherds of pottery, weighing 3152g, from 40 contexts (Appendix 2). These totals include 22 sherds (61g) from sieved samples. An Excel spreadsheet contains full listing as part of the digital archive. Overall the pottery consists of small to medium-sized sherds with slight to heavy abrasion and/or signs of the adverse affects of a fairly acidic subsoil. As such although some of the pottery clearly has not been significantly reworked some has been. Despite this overall the assemblage forms a fairly homogeneous group. A number of different, often related, fabric groups are represented. These, along with their quantities, forms and decorative traits are summarised for the whole assemblage in Table 2.

<u>Table 2: Summary of Pottery assemblage (all contexts)</u>

M/LIA – Mid/late Iron Age; LIA – Late Iron Age; LIA-ER – Late Iron Age to Early Roman; MLS – Mid/Late Saxon)

Fabric	Period	No	Wt (g)	Comments (including estimated number of different vessels represented by form. ? = undiagnostic of form)
F1a Coarse red/grey grog (Cat. Nos 1, 2, 11, 12)	LIA-ER	127	942	Jars x5; (x10 simple everted rims, x1 simple out-turned rim, x3 foot- ring bases; ? x29 (x1 simple rim edge, x1 flat base, x1 slightly splayed foot-ring base, x1 applied thumbed strip)
F1b Fine/medium grog (Cat. Nos 3, 6-10, 13)	LIA-ER	286	1585	Jars x22 (all simple everted, tapering everted, out-turned, simple upright, simple beaded or simple in-turned rims. Flat and splayed/footring bases. Some burnished, x1 incised horizontal line decoration on shoulder, x1 stamped circle and incised arced line decoration); Beaker/jar x4 (in-sloped rim with small external bead); ?x73 (flat, flared or foot-ring bases, x1 simple rim, some burnished, x1 decorated with rows of dots between flanking arced incised lines)
F1c Grog with sparse /moderate calcined flint	LIA-ER	2	2	?x1
F1d Hard off-white grog Cat. No. 4	LIA-ER	37	205	Jar x1 (simple everted rim); ?x2
F2a Fine/medium quartz	LIA-ER	1	4	?x1
F2b Medium/coarse quartz	LIA-ER	1	6	?x1
F3a Pisolithic sand, sparse fine calcined flint	M/LIA	1	4	?x1
F3b Pisolithic sand, fine quartz Cat. No. 5	M/LIA	22	212	Jar x1 (simple out-turned rim); ?x9 (x1 externally burnished)
F3c Pisolithic sand with some red grog	LIA	23	176	Jar x1 (flaring flat base); ?x6 (x1 curved basal angle)
M1a Alluvial flint, some grog	MLS?	3	16	?x3

Late Iron Age to Early Roman

Virtually the entire assemblage can be placed into this period. Although the main grog tempered fabrics (particularly F1b), the simple rims and many of the decorative traits continued well into the Roman period, there is nothing in the assemblage that need post date *c*. AD50, a point reinforced by the complete absence of more Romanized wares. Similarly although a few of the fabrics (eg F3) could belong in the Middle/Late Iron Age there is nothing that has to be prior to 50BC. Indeed the notable dominance of the F1 grog tempered fabrics is typical of the 50BC–AD50 period as has been noted at Bishopstone (Bell 1977).

Parallels are common in the local Late Iron Age assemblages both in forms, rim/base types and decorative traits (Barber 2016; Bell 1977). Although most individual context groups are small, they can be combined into three main stratigraphical groups. The assemblages from these are summarised in Table 3.

Table 3: Pottery assemblages from main groups

Fabric/group	Enclosure ditch 1000		Ring-gully 1001		Post-hole roundhouse 10	
	No	Wt (g)	No	Wt (g)	No	Wt (g)
F1a Coarse red/grey grog tempered	66	488	19	148g	12	62g
F1b Fine/medium grog tempered	58	583	63	225g	61	281g
F1c Grog with sparse/moderate calcined flint	2	2	-	-	-	-
F1d Hard off-white grog tempered	37	205	-	-	-	-
F2b Medium/coarse quartz	1	6	-	-	-	-
F3b Pisolithic sand, fine quartz	13	174	5	22g	-	-
F3c Pisolithic sand with some red grog	16	114	6	60g	-	-
M1a Alluvial flint, some grog	3	16	-	-	-	-
Totals	196	1588	93	455g	73	343g

The enclosure ditch (1000) has the widest range of fabrics and includes small quantities of the earlier types (ie F3) as well as fresh pieces of the F1 grog tempered wares. This suggests there may be some residual pieces in the fills perhaps relating to the earliest occupation of the site in the first half to the 1st century BC. All of the earlier type sherds (ie F3) were recovered from cuts 107 and 108 on the south side of the enclosure (Cat. No. 5). However, the grog tempered wares dominated all of the excavated slots on both the west and south sides, the latter slots producing by far the largest assemblages of the group (cut 107 - 92/594g and cut 108 - 93/925g) demonstrating domestic refuse was dumped here in much higher quantities, possibly as a result of the positioning of the internal structures of the enclosure. The fragmentary nature of most of the material means often forms were not recognisable but jars totally dominate though decoration is not common (eg Cat. Nos 2 and 8).

The assemblage from ring gully (1001) is much smaller (Table 3) and composed of more fragmented sherds, most of which are featureless. The few present are virtually all in one of the grog tempered fabrics and of similar jars with simple rims. Although the group has a less diverse suite of fabrics in comparison to the enclosure ditch the two assemblages roughly correlate as the earlier type F3 fabrics also make up a small proportion of the whole.

The post-hole structure 1002 produced a slightly different fabric suite (Table 3) in that the combined assemblage of 73 sherds is solely composed of grog tempered wares with no F3 fabrics present at all. Although this may be the result of dealing with fairly small assemblages it may also suggest this structure replaced the ring gully 1001 structure. Its position would also be convenient for the disposal of domestic waste into the enclosure's southern side ditch, perhaps when the need for the ditch was declining. Although the majority of feature sherds are again from jars with simple rims, all the beaker-type vessels in the assemblage are also from this group.

Figure 9. Illustrated pottery

- 1. Jar with simple out-turned rim. Reduced. Fabric F1a. Fill [162], ditch cut [107] (G1000).
- 2. Body sherd with applied thumbed horizontal strip. Reduced. Fabric F1a. Fill [162], ditch cut [107] (G1000).
- 3. Jar with simple stubby everted rim. Reduced/oxidised. Fabric F1b. Fill [162], ditch cut [107] (G1000).
- 4. Jar with everted rim. Reduced. Fabric F1d. Fill [162], ditch cut [107] (G1000).
- 5. Jar with simple out-turned rim. Reduced. Fabric F3b. Fill [163], ditch cut [108] (G1000).
- 6. Jar with simple out-turned rim. Reduced. Fabric F1b. Fill [163], ditch cut [108] (G1000).
- 7. Jar with simple out-turned rim. Reduced. Light external burnish. Fabric F1b. Fill [163], ditch cut [108] (G1000).
- 8. Jar with simple everted rim. Reduced. Light external burnish with row of stamped circles bordered by incised horizontal lines above incised arced ('eye-brow') lines on shoulder. Fabric F1b. Fill [163], ditch cut [108] (G1000).
- 9. Beaker/jar with beaded in-sloped rim. Reduced. Fabric F1b. Fill [83], pit cut [31] (G1002).

- 10. Beaker/jar with beaded in-sloped rim. Reduced. Fabric F1b. Fill [83], pit cut [31] (G1002).
- 11. Jar with simple everted rim. Reduced. Fabric F1a. Fill [87], pit cut [32] (G1002).
- 12. Jar with simple everted rim. Reduced (light grey). Fabric F1a. Fill [87], pit cut [32] (G1002).
- 13. Body sherd decorated with rows of dots between flanking incised arched lines. Reduced. Fabric F1b. Fill [91], post-hole [36] (ungrouped).

Post-Roman

There are three small sherds (16g) in the assemblage tempered with multi-coloured alluvial flint grits. All of these are somewhat worn and were recovered from slots 18 and 19 across the western enclosure ditch. It is unfortunate that no feature sherds are present, but the alluvial flint grit and general firing suggests the sherds to be of Mid/Late Saxon date, perhaps dating between c. 575 and 850. Their presence in the enclosure ditch suggests some intrusion, possibly the result of arable cultivation of the land at this time.

Ceramic Building Material by Luke Barber

The site produced 216 pieces of brick, tile and burnt clay (2223g) from 26 contexts (Appendix 3), which includes eight pieces are from 18th- to 19th- century brick and tile from the evaluation. The burnt clay, which appears to relate to the excavated features at the site, is briefly considered in this report. The burnt clay is summarized in Table 4.

Table 4: Fired clay and daub,

Fabric	No.	Wt (g)	Forms	Groups
D1a Silty pale red/orange/buff	108	1463	Amorphous apart from 2 with flat faces & 5	1000, 1001, 1002
			wattle impressions	
D2a Silty, sparse iron oxides	49	388	1 flattish face, rest amorphous	1000, 1001, 1002
D3a Fine sugary quartz, some iron oxides & 'marl'	34	189	All amorphous	1002 only
D4a Silty dull orange with moderate iron oxides	17	47	All amorphous	1000 only

The burnt clay is present in four different fabrics though all could be considered 'naturally' tempered and from the locality of the site. Although D1a and D2a were recovered from groups 1000 to 1002, D3a and D4a were only present in single groups (1002 and 1000 respectively). The vast majority of pieces consist of amorphous lumps that are undiagnostic of function. Although they could be daub from structures none of these have diagnostic features such as flat faces or wattle impressions and they could derive from other functions. However, ditch 1000 produced two pieces of D1a with flattish faces (slots 107 and 108) and post-built roundhouse 1002 D1a fragments with flat face (2) and wattle impressions (5) to 30mm diameter strongly suggesting the majority of the assemblage does derive from daub associated with the structures. The only piece of D2a with a flattish face was recovered from gully 1001 and indeed, of the nine pieces of associated burnt clay, six are in D2a while three are in D1a though they never appear in the same feature together. Structure 1002 also has the same two fabric types (76/460g and 23/21g respectively but again always in separate features) but is joined by three pieces (4g) of D3a suggesting this may represent a later variant daub mix used in the repair of roundhouse 1002.

Struck Flint by Steve Ford

Just 3 struck flints were recovered from the excavation fieldwork, none of which are likely to be contemporary with the Iron Age deposits on the site (Appendix 4). The pieces comprised a flake, a spall (piece less than 20x20mm) and a segment of narrow flake that had been burnt. The latter is probably of Mesolithic date but the other two can only be broadly dated to prehistoric times, such as the Neolithic or Bronze Age.

Burnt Bone by Ceri Falys

A single human cremation burial was recovered from feature 35 (90) (Pl. 7). The burnt bone was whole-earth recovered in a series of five, 0.02m thick spits. During post-excavation processing, the surrounding soil and bone were floated and wet-sieved to a 1mm mesh size, with all burnt bone and other associated artefacts separated for further analysis.

Prior to osteological analysis the bone from each spit was sorted using a sieve stack comprising 10mm, 5mm, and 2mm mesh sizes. The relative weights from each of the sieves was recorded, along with the colour(s) and overall preservation of the burnt bone, in addition to the maximum post-excavation fragment measurement of cranial and post-cranial elements, and the maximum thickness of the bones of the cranial vault (Table 5).

Quantity of Bone

In total, 690.0g of burnt human bone was recovered from feature 35. The quantity of bone varied greatly between the spits, with the upper spits containing less bone than the lower spits (i.e. 40.0g and 38.0g of bone was recovered from spits 1 and 2, respectively, compared to 246.0g from spit 4 and 229.0g from spit 5) (Table 5). Based on the results of a study of remains from modern crematoria, McKinley (1993) found the expected amount of bone from the cremation of a complete, adult individual to range between 1001.5g-2442.5g, with an average of 1625.9g. Although burial (90) contained less than half of this average expected weight, the reduced quantity of bone may reflect the practice of burying only some of the calcined bone of the cremated individual, representing a symbolic or token internment (McKinley 2006), disturbance of the burial after internment, or the result of poor preservation of the skeletal remains.

Preservation

Overall, the bone was of "fair" preservation. Despite demonstrating a general chalky texture, the cortical bone surfaces retained their characteristics, and post-excavation fragment size of the majority of pieces of bone (62.3% of total weight of the recovered bone) measured larger than 10.0mm in length (Table 5).

Both the maximum post-excavation lengths of long bone shaft fragments and portions of cranial vault increased towards the lower spits. Maximum shaft lengths were recorded between 21.7mm (spit 1) and 64.4mm (spit 4). Cranial remains had recorded maximum lengths between 17.8mm (spit 2) and 30.4mm (spit 3).

Colour of the Bone

Burnt bone fragments can display a variety of colours, due to the efficiency of the cremation process. Conditions such as the quantity of fuel used to build the pyre, the temperature and oxidizing/reducing conditions attained in various parts of the pyre, and length of time over which the cremation was undertaken is reflected by the resultant bone colour (McKinley 2004:11). The majority of bone from burial (90) was white in colour, however, three fragments of charred-black long bone shaft fragments were observed in spit 3. Holden and colleagues (1995a and b) suggest white coloured bone, as displayed in this assemblage, is produced through exposure to temperatures in excess of 600 °C, as the organic components of the bone have been completely oxidized. The presence of charred (black) fragments in spit 3 suggest those portions of the body were subjected to lower overall temperatures during the cremation process, approximately 300 °C (Holden *et al.* 1995a and b)

Osteological Analysis

All pieces of bone were analysed following the procedures suggested by Gejvall (1969), Brickley and McKinley (2004), and Mitchell and Brickley (2017). The purpose of osteological analysis is to determine the nature of the burnt bone (i.e. human and/or animal). If human, a demographic profile of skeletal assemblages can be investigated through the assessment of age-at-death and sex of the individual(s) present, in addition to pathological conditions that have affected skeletal elements. The minimum number of individuals (MNI) represented within the inhumation was determined through the identification of duplication of the same skeletal element, or by the presence of age-related development of teeth and/or skeletal elements.

<u>Inventory</u>

Osteological analysis initially aimed to divide fragments into five main areas of the body: cranial, axial, upper limb, lower limb and non-descript long bone (unidentifiable to specific limb). A more detailed identification of fragments to specific skeletal element and side was also undertaken, where possible. The most frequently identified fragments were portions of the long bones (humerus, ulna, femur, and tibia), and non-descript portions of the cranial vault. Two fragments of trochlea of distal humerus (unsided and unable to be refit) were recovered from spits 1 and 2, in addition to a portion of rib shaft (spit 5), and a superior articular face of a thoracic vertebra (spit 4).

Minimum Number of Individuals

A lack of element duplication or identification of differing stages of skeletal development suggested the presence of a single individual in burial (90).

Assessments of Sex and Age-at-death

The accuracy of osteological methods to identify the biological aspects of the human skeleton, such as estimations of age-at-death and sex, greatly reflect the quantity and quality of observable standard traits. It was not possible to assess the sex of the individual within burial (90), due to the lack of the required portions of the skull and pelvis. The trochlea

fragments recovered from spits 1 and 2 were insufficiently preserved to assess the sex of that portion of the distal humerus. As a result, the sex of the individual is indeterminate.

Age-at-death was also not able to be investigated using standard criteria. Based solely on the overall thickness of the cortical bone of the long bone shafts present, and the thickness of the cranial vault, it is suggested the individual was an adult (i.e. 18+ years) at the time of death. It was not possible to provide a more specific age range.

No pathological alterations or non-metric traits were identified on the fragments present.

Summary

In conclusion, the osteological analysis of this human cremation burial suggests a single adult individual of indeterminate sex was interred in feature 35. Although the remains were of fair preservation and displayed a generally large fragment size, the required skeletal regions for assessment of sex and more precise age-at-death were not identified within the assemblage of bone.

<u>Table 5: Summary of burnt bone post-excavation fragmentation.</u>

	Context		Max Frag	Size (mm)	Cranial vault	Cranial vault 10mm		5mm		2n		
Cut	Deposit	Spit	Cranial	Lbsf	thick.	Wt (g)	%	Wt (g)	%	Wt (g)	%	Total (g)
35	90	1	21.1	21.7	5.0	17.0	42.5	8.0	20	15.0	37.5	40.0
35	90	2	17.8	22.0	4.1	14.0	36.8	9.0	23.7	15.0	39.5	38.0
35	90	3	30.4	37.3	5.0	82.0	59.9	22.0	16.1	33.0	24.1	137.0
35	90	4	28.0	64.4	5.6	172.0	69.9	36.0	14.6	38.0	15.4	246.0
35	90	5	26.2	36.6	4.4	145.0	63.3	41.0	17.9	43.0	18.8	229.0
35	90	Total	30.4	64.4	5.6	430.0	62.3%	116.0	16.8%	144.0	20.9%	690.0

Macrobotanical plant material and charcoal by Rosalind McKenna

A programme of soil sampling implemented during the excavation included the collection of soil samples from 29 sealed contexts (33 sub-samples) which were processed by floating and wet-sieving using a 0.25mm mesh. The flots were examined under a low-power binocular microscope at magnifications between x12 and x40. Charred plant macrofossils were present in just three of the samples (Appendix 5 Table A5.1). Taxonomy and nomenclature follow Stace (1997) for charred plant remains other than charcoal, Schweingruber (1978) and Hather (2000) for charcoal. Identification was carried out using published keys (Jacomet 2006; Biejerinck 1976; Zohary and Hopf 2000), the author's own reference collection, and online resources (http://www.plantatlas.eu/za.php).

Results 1

Charred plant macrofossils were present in only two of the samples. The results of the plant macrofossil analysis can be seen in Appendix 5: Table A5.1. The preservation of the charred remains was poor.

Indeterminate cereal grains were recorded in both of the samples. These were identified based on their overall size and morphological characteristics, which may suggest a high degree of surface abrasion on the grains, indicative of mechanical disturbances that are common in features where rubbish and waste are discarded.

If cereal processing were occurring at the site, it would be expected that some remains (most probably in high numbers) of cereal chaff – a by-product of the crop processing sequence (Hillman (1981; 1984a and b) would be found. There was chaff present in both of the samples, and in one in extremely high numbers in comparison to the grains recorded with over 400 spikelet forks and glume bases recorded. Given that grain survives charring better than chaff it is reasonable to suggest that this domination by chaff has not been affected by preservation conditions, and the deposits therefore are likely to represent the by-product of de-husking hulled wheat (the removal of the glumes or hulls). Such chaff waste is frequently used as a source of fuel (Campbell 2008, 71) and its presence in pit 32 is presumably related to such a practice.

Charcoal fragments were present in the majority of the samples and sub-samples. The majority of the fragments were too small to enable successful fracturing that reveals identifying morphological characteristics. Where fragments were large enough, the fragments were very brittle, and the material crumbled or broke in uneven patterns making the identifying characteristics difficult to distinguish and interpret, and so only a limited amount of environmental data can be gained from the samples. Identifiable remains were however present in small numbers in 16 samples (20 subsamples). (Appendix 5: Table A5.2).

All of the samples produced varying but generally small amounts of charcoal. The total range of taxa comprises oak (*Quercus*), willow/poplar (*Salix/Populus*), and ash (*Fraxinus excelsior*). A local environment with a relatively wide range of trees and shrubs is indicated from the charcoal of the site. Oak is the most frequently recorded remain within the samples, being the dominant, or only recorded species in all of the samples. Willow/poplar and ash were each recorded as a minor component in two samples. It is possible that these were the preferred fuel woods obtained from a local environment containing a broader choice of species.

Of the samples from the cremation, oak was the only species identified. The typical composition of cremation wood assemblages in general, shows that oak was predominantly used for the main structure, with other species used as brushwood (Davies and Mates 2005). Whilst oak tends to be the most recorded remain from these features, it may be over represented in the record due to its robust heartwood. The high temperatures reached during the cremation process would have burnt up the majority of other species, thus favouring the preservation and recording of oak.

Summary

The samples produced some environmental material of interpretable value, with plant macrofossils from two samples, and identifiable charcoal remains from 16 of the samples (20 sub samples). The deposits from which the samples derive, probably represent the intentional deposition or accumulation of domestic waste associated with fires, alongside a cremation.

The remains of plant macrofossils recovered from the samples showed the utilisation of indeterminate cereal grains and chaff fragments. The charcoal remains showed the exploitation of dryland wood species indicates the

presence of an oak-ash woodland close to the site. This would have consisted of oak, which would be the dominant large tree species (Gale and Cutler 2000, 120, 205). Willow and poplar are trees that thrive in waterlogged and damp soils, particularly in areas close to streams or with a high water table (Stuijts 2005, 143; Gale and Cutler 2000).

Radiocarbon dating

Two samples were submitted to the Chrono Lab at Queen's University, Belfast, for radiocarbon dating, one fragment of Ash charcoal and one sample of carbonised food residue on a pottery sherd. The results are detailed in Table 6, where the probability is expressed as relative area under the curve at 2-sigma (95.4% confidence). The laboratory calibrated the results with CALIB rev 8.2 (used in conjunction with Stuiver and Reimer 1993). The plot of the results against the calibration curve (Chart 1) used OxCal v4.4.4 (Bronk Ramsey 2021, with data from IntCal 20 (Reimer *et al.* 2020). The two calibration methods differ only by a year or so.

Table 6: Radiocarbon dates. All given at 2-sigma (95.4% confidence). Most probable dates shown in Bold

Lab ID	Feature	Context	Material	F14C	Radiocarbon Age (BP)	Calibrated Age	Probability (%)
UBA45313	Posthole 32	87	Ash charcoal	0.7656±0.0026	2146 <u>+</u> 28	351-289 BC	25.0
						227-221 BC	0.7
						208-92 BC	68.5
						78-54 BC	5.7
UBA45314	Ring gully 1001 Slot 42	97	Residue on pot	0.7799±0.0024	1997 <u>+</u> 24	45 BC -AD 79	98.4
						AD 100-107	1.6

Calibrated using CALIB REV8.2 (in conjunction with Stuiver and Reimer 1993) with data from Reimer et al. 2020.

Conclusion

The archaeological excavation has recorded a modest settlement site of Late Iron Age date. The site would appear to be enclosed by a simple rectilinear ditch (not fully demonstrated in the area exposed) with two structures within. The two structures are both considered to be houses but are markedly different to each other, one being a post-in-hole form and the other of ring-gully form. It is possible that the ring gully is a foundation trench for the house wall, but more likely that the house stood within and did not have earthfast walls. Both types are common in the Iron Age, but with a trend towards ring gully houses replacing post-in-hole built ones. This trend appears to be present here with the two radiocarbon dates suggesting that the ring gully is the later structure.

The site is considered to be of a single phase of use in the Later Iron Age being abandoned before the effects of Romanization are evident in the pottery supply. The date of commencement of occupation is less clear cut and possibly the beginning lay in the Middle Iron Age proper, as some of the pottery may be this early, but more likely within the earlier part of the Late Iron Age. The lifespan of post-built houses could be of the order of 2 centuries. A span of site use from c. 150 BC to 40 AD may be plausible.

Iron Age and Early Roman occupation of the Weald, other than for the production of iron, is not well recorded with the historic references to extensive woodland (OE *wald* - 'forest'- Cameron, 1996, 197) being transferred

backwards into Roman and prehistoric times to account for this lack of occupation evidence (Cleere and Crossley 1995; Rudling 2000; Allen 2016). In fact, several clayland regions, such as in the London Basin were equally regarded as lightly settled (Ford 1987) until the results of development-led fieldwork began to redress the balance (e.g. Pine 2012). It is therefore of particular interest that development-led fieldwork is consistently providing evidence to challenge this negative overview of the Weald demonstrating both the presence of Iron Age and Roman settlement and characterising its nature. The sites revealed so far are quite variable in nature.

At Broadbridge Heath, Middle Iron Age settlement, mainly comprising just a single ring gully house, was radiocarbon dated to 509-379 cal BC (UBA32240) (Taylor 2017). At East Grinstead Iron Age occupation was represented only by a few pits but possibly associated with iron production. It was radiocarbon dated to 415-356 cal BC (UBA45315) (Wallis 2021) which until recently would have appeared inconsistently early, but other Middle Iron Age iron production sites have been recorded at Haywards Heath radiocarbon dated to 370-180 and 350-200 cal BC (Beta 430475-6) (Sheehan 2020) and Hawkhurst, Kent, with a similar date range (Stevens 2021)

By way of contrast, at Wickhurst Green, Horsham, several Middle and Late Iron Age occupation sites have been recorded. A larger settlement (ST1) comprising four unenclosed ring gully houses, replaced on several occasions, along with a 4-post structure, with two further ring gully houses further away (Margetts 2018, 41). The cluster (ST1) was radiocarbon dated to 370-160 and 360-110 cal BC (SUERC 61295-6) with one of the other structures dated to 400-200 cal BC (SUERC 61300). At some distance two further ring gully houses were recorded, one of which was associated with elements of a field system (Margetts 2018, 48) and dated to 350-50 and 380-170 cal BC (SUERC 61301-2).

Several recently excavated sites span the transition from Late Iron Age into Roman. At Icklesham a site comprising pits and boundary features continued into early Roman times and appears to be related to an enclosed cemetery or shrine (Fuentes and Wallis 2020). At Wickhurst Green, Horsham, a further three ring gully structures artefact-dated to the LIA/ER transition were associated with a ditched settlement enclosure which continued into Early Roman times (Margetts 2018). Similarly, a more substantial settlement was recorded at Alfold, Surrey, where a LIA ring gully was associated with a field system which developed into an enclosure complex in early Roman times (Rouard 2017). A similar site was recorded at Cranleigh, Surrey where again a single LIA ring gully preceded an enclosure complex in early Roman times (Hayman 2008).

There are no faunal remains with which to examine the animal husbandry component of the subsistence economy at the site. However, despite only two of the 29 samples taken containing charred plant remains, one of these contained a large volume of cereal processing waste (and a few seeds), which is strong evidence for the processing of grain on the site, presumably grown nearby. There are no obvious facilities for the storage of substantial amounts of grain either in below ground storage pits nor in above ground granaries (eg 4-post structures) and thus it appears that the grain produced was just for home consumption. Surprisingly, none of the other comparable sites in the region have produced

carbonized grain, or only in very low quantities: it appears, however, that this might reflect the paucity of samples taken at those sites (apparently only 13 contexts were sampled from the extensive project next to the A24, Horsham, for example (Sheehan 2016, 26) and only 10 at Haywards Heath (Sheehan 2017, 23)).

It is also worth noting that the site produced no evidence for iron working: coupled with the evidence for arable farming, this is at odds with the traditional perception of the Weald as an area that was heavily wooded and exploited only for its iron ore. There can now be seen to be at least some cleared and settled (and farmed) areas: how widespread will require further work, as the data remain scarce compared to other regions (Margetts 2018, 121–3).

Acknowledgements

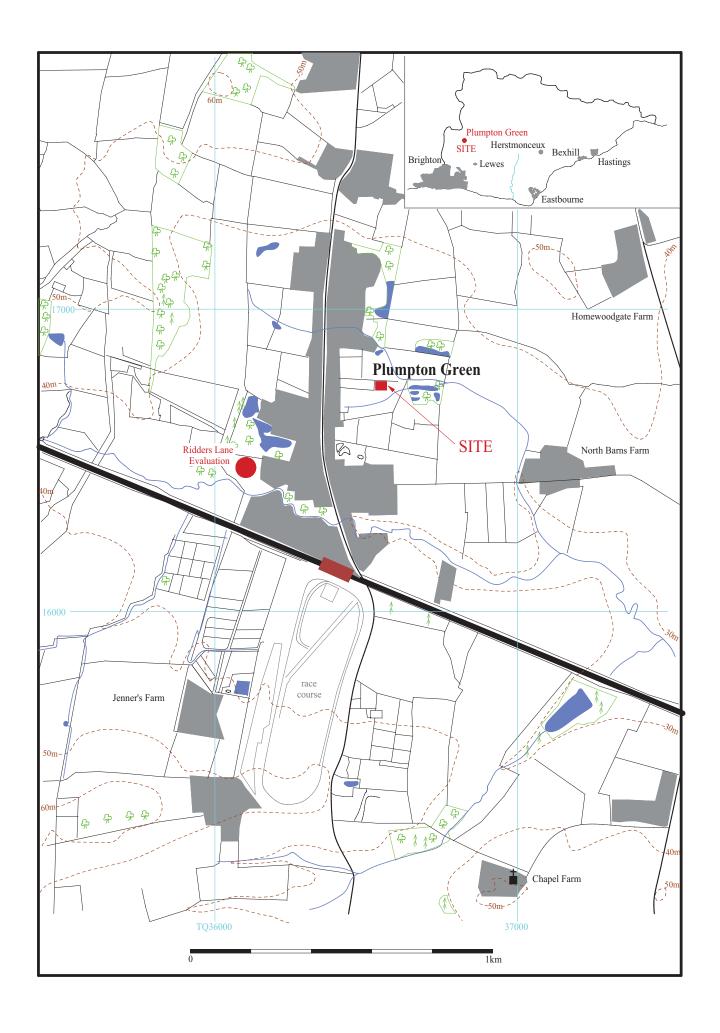
The excavation was funded by Sigma Homes with the fieldwork being monitored by Neil Griffin, the East Sussex County Council Archaeological Officer. The excavation team consisted of Virginia Fuentes-Mateos, Amelia Hopkins and the author. Illustrations were produced by Virginia Fuentes-Mateos, Andy Mundin and the author.

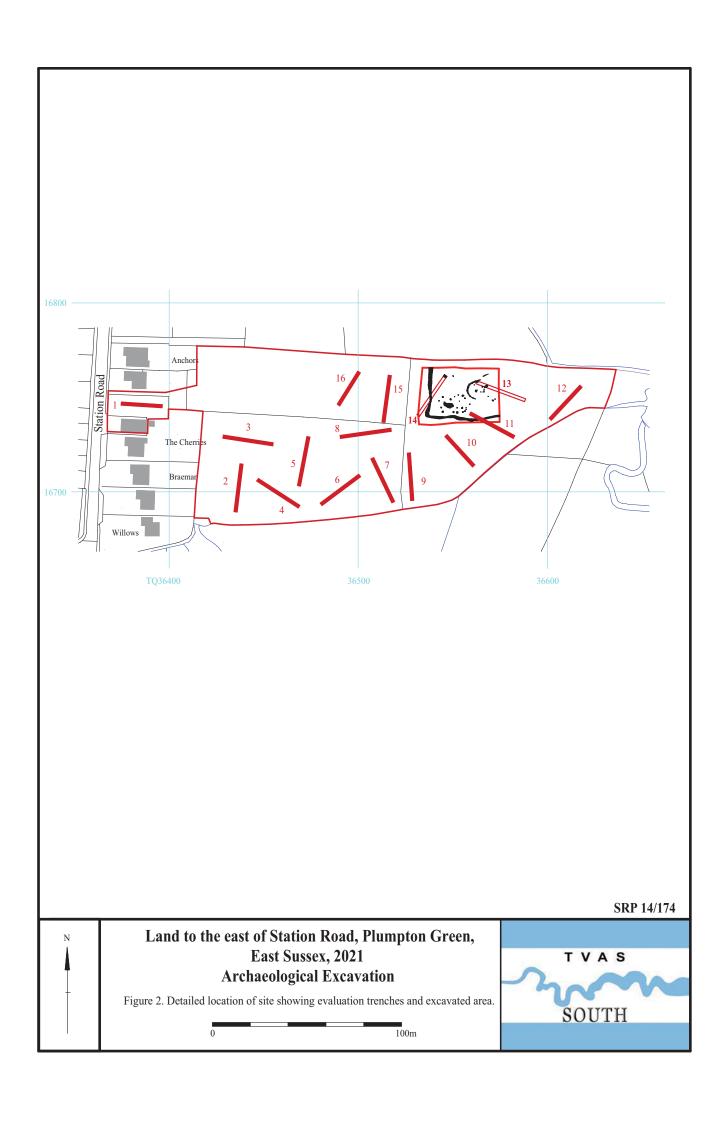
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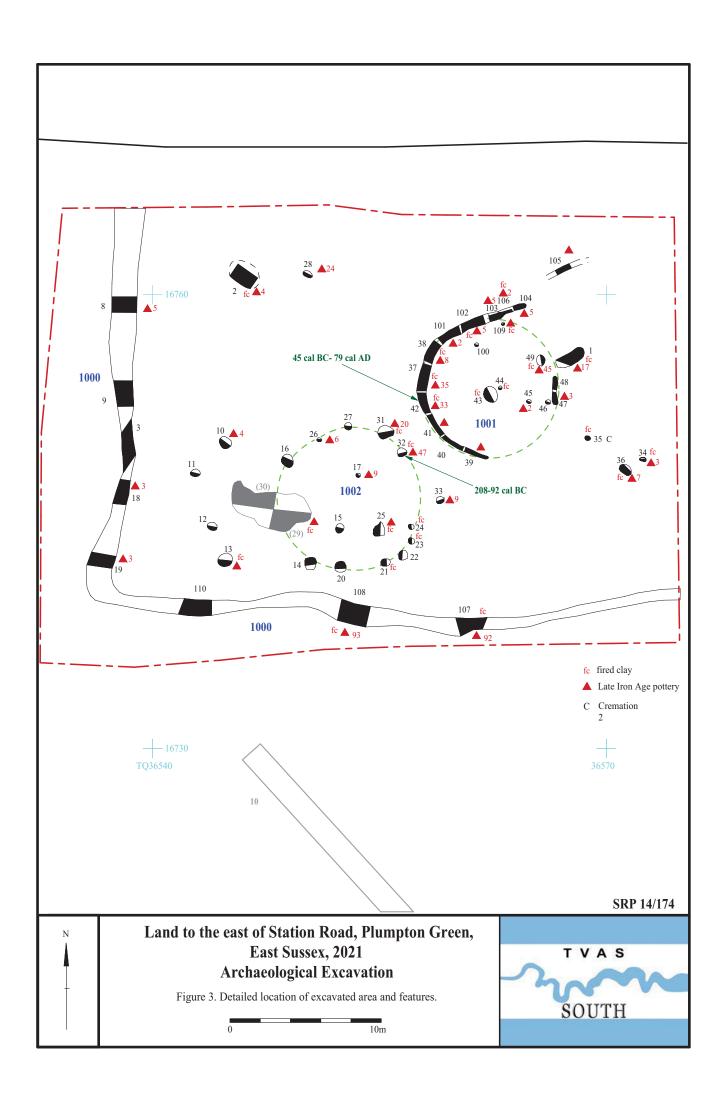
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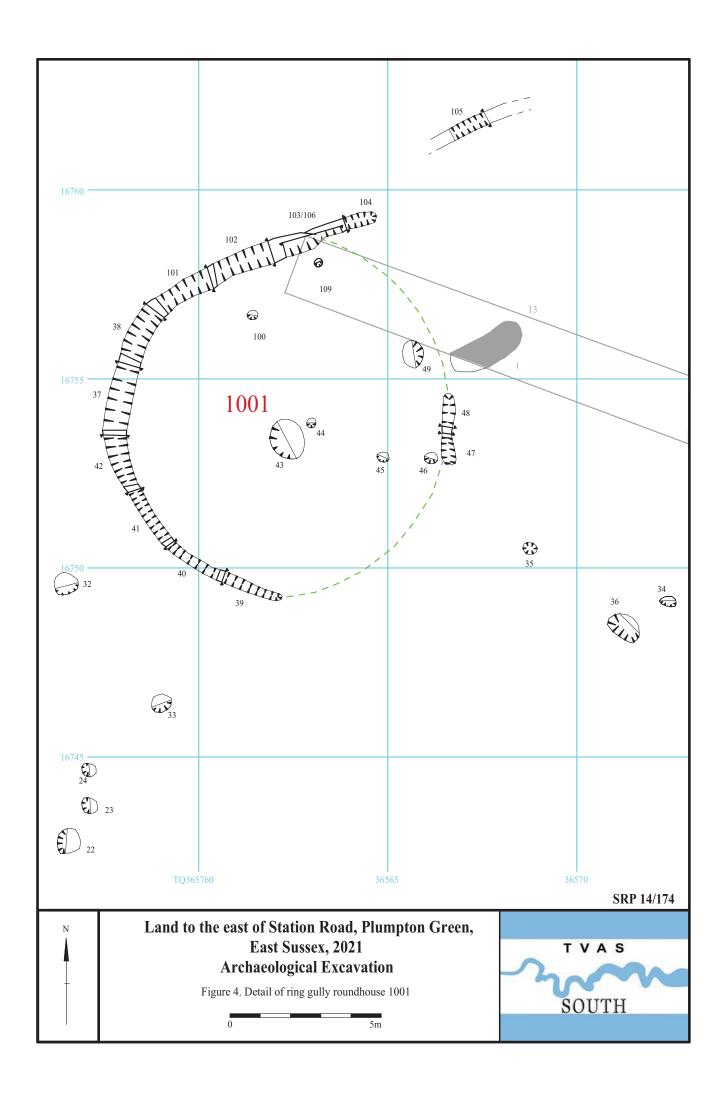
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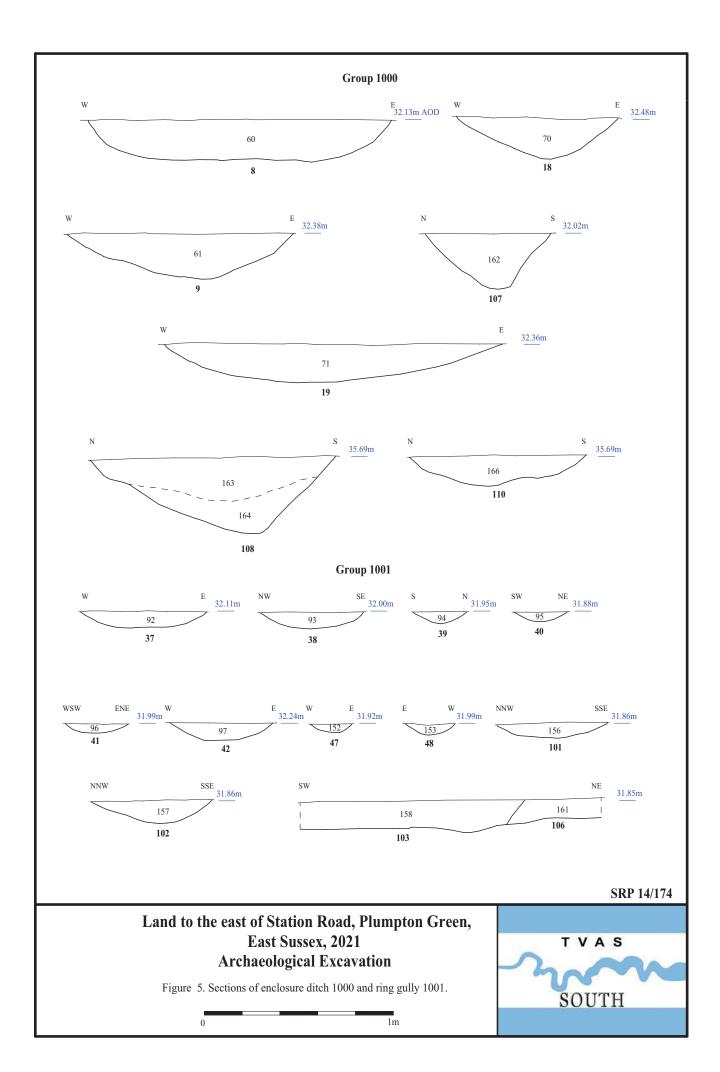
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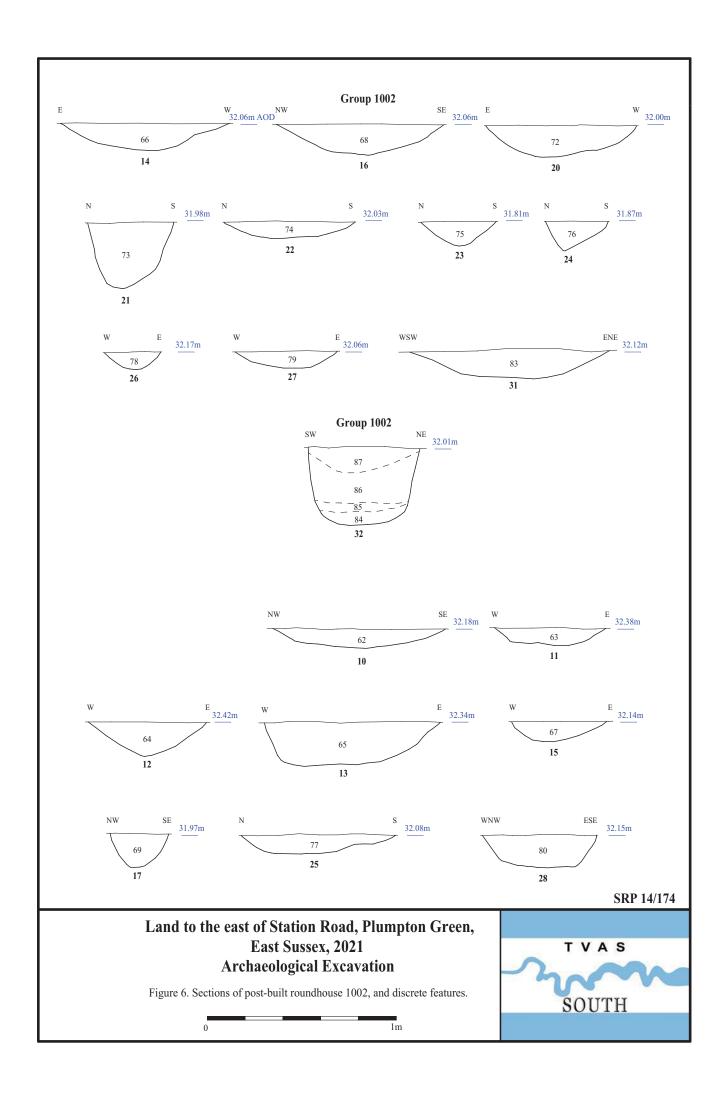


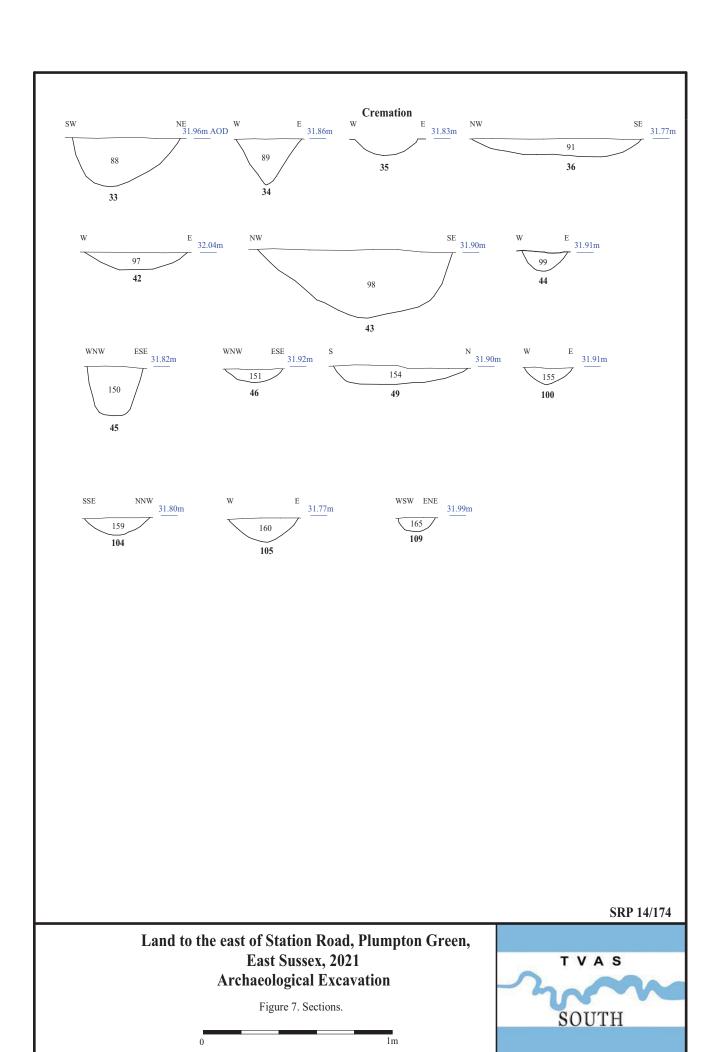


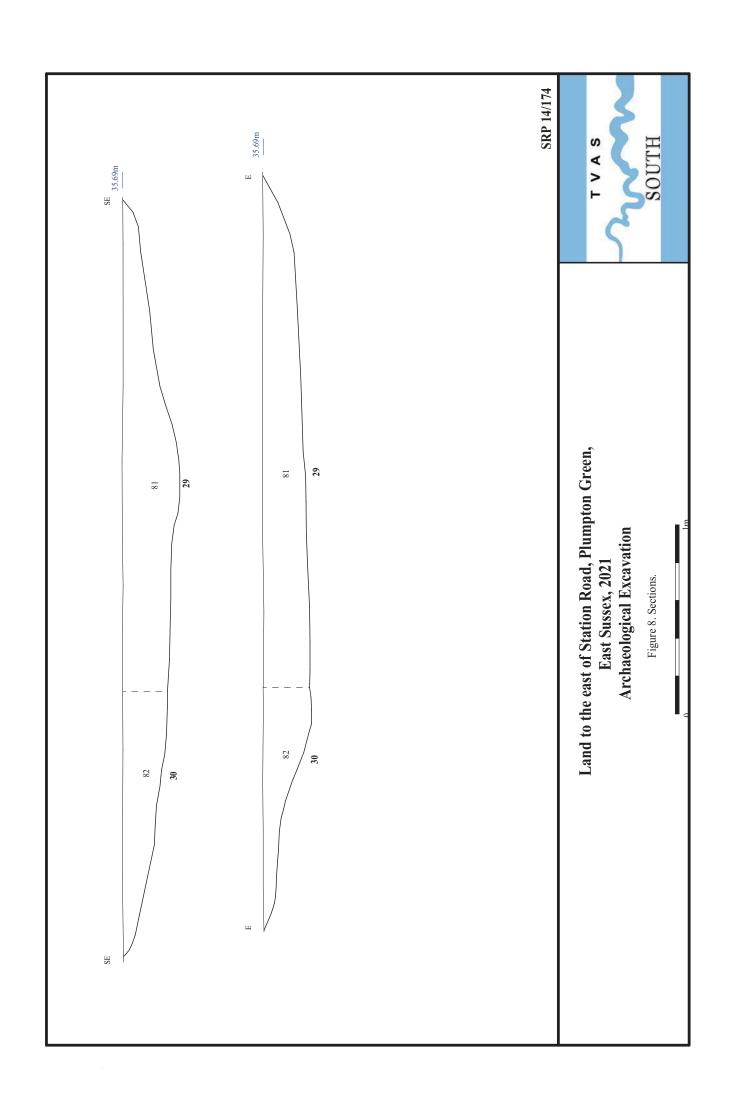












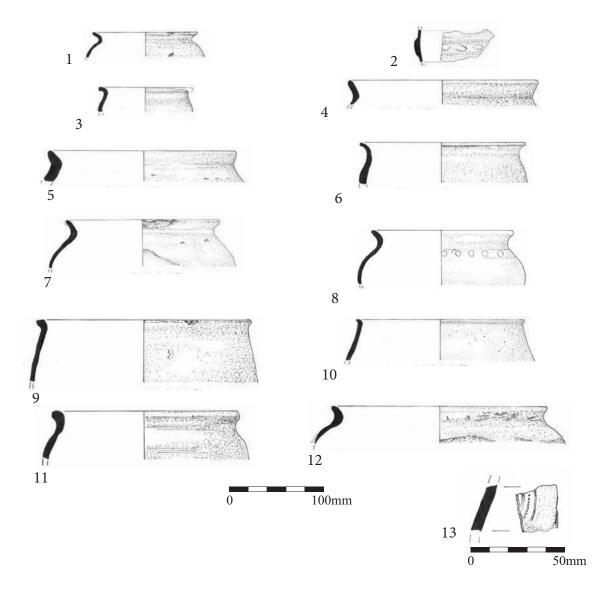


Fig. 9. Pottery

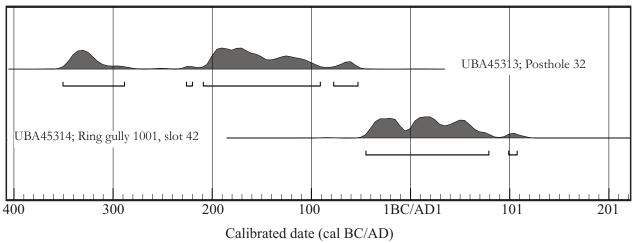




Plate 1. Posthole 20, looking South. Scales: 0.50m and 0.30m.



Plate 2. Posthole 21, looking East. Scales: 0.50m and 0.30m.



Plate 3. Posthole 23, looking East. Scale: 0.50m.



Plate 4. Pit 32, looking North-west. Scales: 0.50m and 0.30m.



Plate 5. Ditch 1000, Cut 9, looking North. Scales: 1m and 0.30m.



Plate 6. Ditch 1000, Cut 108, looking East. Scales: 1m and 0.30m.

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Land to the East of Station Road, Plumpton Green, East Sussex, 2021 **Archaeological Excavation**

Plates 1 to 6.

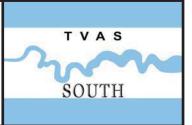




Plate 7. Cremation pit 35, North to top. Scales: 0.30m and 0.30m.



Plate 8. Ring gully 1001, Cut 40, looking North-west. Scale: 0.30m.



Plate 9. Pit 43, looking North-east. Scales: 0.50m and 0.30m.



Plate 10. Pit 49, looking West. Scale: 0.30m.



Plate 11. Ring gully 1001, general shot. Scales: 2m and 1m.

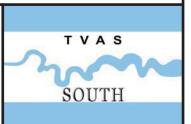


Plate 12. Ring gully 1001, general shot. Scales: 2m and 1m.

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Land to the East of Station Road, Plumpton Green,
East Sussex, 2021
Archaeological Excavation

Plates 7 to 12.



TIME CHART

Calendar Years

Modern	AD 1901
Victorian	AD 1837
Post Medieval	AD 1500
Medieval	AD 1066
Saxon	AD 410
Roman	AD 43
Iron Age	AD 0 BC 750 BC
Bronze Age: Late	1300 BC
Bronze Age: Middle	1700 BC
Bronze Age: Early	2100 BC
Neolithic: Late	3300 BC
Neolithic: Early	4300 BC
Mesolithic: Late	6000 BC
Mesolithic: Early	10000 BC
Palaeolithic: Upper	30000 BC
Palaeolithic: Middle	70000 BC
Palaeolithic: Lower	2,000,000 BC
↓	\



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