Hill Residential Site and Foster's Mill (CB1), Cambridge

An Archaeological Investigation.

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Lawrence Billington

CAMBRIDGE ARCHAEOLOGICAL UNIT
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Summary

A archaeological investigation at the Hill Residential CB1 development site, South Cambridge, revealed two distinct phases of archaeology. The first consisted of a dispersed cluster of small pits, dated by a single sherd of pottery and a small associated flint assemblage to the Early Neolithic. Later activity was restricted to evidence for a 16th/17th century agricultural field system and two large 19th pits, potentially resulting from activities associated with the earliest development of the Cambridge Railway Station.

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INTRODUCTION

Between the 13th and 20th February 2012 the Cambridge Archaeological Unit (CAU) undertook an archaeological investigation on the site of the Hill Residential CB1 development, south Cambridge, in advance of the construction of a basement and road, over an area of 837m². This work followed on from several phases of evaluation and excavation (Mackay 2005; 2006; Slater 2010). The Development Area had previously been the site of 19th and 20th century buildings associated with Foster's Mill corn depot (later Rank Hovis, Spiller's Mill) and the Cambridge Railway Station; these were demolished in the months prior to the archaeological investigation. The site was allocated code number CRR12, and occupied level ground at around 15m OD on the third terrace gravels of the Cam system, overlying Lower Chalk, centred on NGR 546072 257182.

Archaeological and Historical Background

Detailed background to the archaeology and history of the immediate locale and its surrounding environs has been presented in a number of desktop assessments (Dickens 1999; Dickens *et al* 2003; Dickens 2007; see also Slater 2010). The following is a brief overview of the background most relevant to the present discussion.

Prehistoric

Evidence for prehistoric activity has been noticeably limited in previous investigations. Less than 200m south of the development area four struck flints were noted during a test pit survey in 2005 as residual within quarry pits associated with Romano-British pottery (Mackay 2005); two of these flints were identified as Neolithic. A further 15 worked flints were recovered during an open area excavation of the pits (Slater 2010), dating no earlier than the later Neolithic, and perhaps spanning into later periods. Later prehistoric activity has been reported approximately 400m to the west of the development area with a small pit containing sherds of later Bronze Age, post-Deverel Rimbrey pottery (Cooper 2004: 14), and a second pit found to contain later Iron Age pottery (Kenny 2000). The proximity of these pits to undated ditches may indicate broader prehistoric activity. This is supported by another ditch of possible prehistoric date identified during evaluation trenching at Homerton College, from which burnt flints were retrieved (Alexander 1997).

Romano-British

With traditional understanding of Roman Cambridge the primary centre of settlement was located at Castle Hill. However, recent investigations across Cambridge supports a different picture of a number of comparatively dense Romano-British settlement sites both to the northwest and south of the city's outskirts interlinked by a network of road systems traversing a hinterland (Evans *et a*l. 2008). This is significant to the development area given that the present course of Hills Road is believed to broadly follow the trajectory of one of these Roman roads: the Via Devana, or Colchester to

Godmanchester road. The exact nature and course of this road is not fully certain, although it is believed to have been established by the mid-1st century AD (Walker 1910). Three published notes claim to have observed different elements of this road at the Botanic Gardens and the grounds of the Perse School (Babington 1883; Walker 1910: 166-7; RCHM 1959: 6). Verification of these sources remains outstanding, although quarry pits that might be expected alongside a Roman road as aggregate for construction and repair have been excavated to the southwest of the current development at the Old Cattle Market and the CB1 site (Mackay 2001: 24; Slater 2010). Moreover, early Romano-British field boundaries, dating to the 1st-2nd century AD, have been recorded along Brooklands Avenue (Kenny 2000; Armour 2002), and an agricultural soil horizon containing pottery and other material of a Romano-British date was found at the Marshall Garage site on the corner of Cherry Hinton Road and Hills Road (Newman 2009).

Medieval

The few medieval finds from around the development area probably indicate little more than general agricultural activity (see Dickens *et al*. 2003). The recent excavations immediately to the south of the development area identified a Medieval agricultural horizon overlying the natural gravels of the site together with remnant traces of ridge and furrow. Several of the quarry pits excavated at the site have also been attributed to the Medieval period on stratigraphic grounds (Slater 2010).

Post-Medieval

The area surrounding the site appears to have remained in agricultural use until the mid 19th century, when sidings and buildings associated with the development of the Eastern Counties Railway were constructed throughout the local area, circa 1845 (see Dickens *et al*. 2003: 7-9). In 1864 two large granaries were built over the northern limit of the development area by the Foster Brothers company, with the addition in 1894 of a steam-driven mill and tall chimney to the east. Railway sidings were purpose built for the Foster's Mill.

METHODOLOGY

Deposits overlying the archaeological horizons were removed by a tracked 360º excavator under constant archaeological supervision. The occurrence of post-Medieval features cut into subsoil deposits occasioned a second phase of machine excavation following sampling of these features in order to expose the natural gravel substrate; it was at this lower horizon that the Neolithic features were encountered. The site was located using an advanced Global Positioning System (GPS) with Ordnance Datum (OD) heights obtained. Archaeological horizons were hand planned at a scale of 1:50 and sections were drawn at a scale of 1:10. A written record of all archaeological features was created using the CAU recording system (a modification of the MoLAS system). All archaeological features and deposits were sample excavated or 100% excavated as required and a full photographic record was made of relevant sections and features. Environmental bulk soil samples were taken from selected features.

RESULTS

Impact upon the underlying archaeology by the construction of aforementioned 19th and 20th century buildings was extensive. This included a sunken brick-lined floor of a basement aligned north-south to a depth of 80cm below the ground surface, and thirteen 1.2m² concrete pile footings with at least seven smaller (c. 30-40cm) brick-laid pile footings at regular intervals across the site. As a consequence of the demolition of these buildings the development area was 'framed' by cuts to a depth of 1m filled with demolition debris. Nonetheless, this enclosed an 'island' of relatively undisturbed upper natural gravels with an overlying compacted subsoil and thin topsoil. This was sealed by a brick floor laid upon an artificial sand foundation that was partially impressed into (and perhaps lightly truncating) the underlying 'buried' topsoil. This area measured 38.6m by 16.5m, and comprised two distinct archaeological horizons. The first horizon encountered was a subsoil deposit approximately 10-20cm thick through which post-Medieval features had been cut. This deposit sealed the natural gravel substrate into which a cluster of pits and postholes of early Neolithic date were cut. Fortuitously, all of the pile footings seemed to avoid the prehistoric archaeological features (unless, of course, they served to completely remove individual examples). These are described below.

Neolithic

Eleven small oval or sub-circular pits were found clustered within the southern part of the site. The main characteristics of the features are summarised in Table 1. All of the pits contained a single fill of soft mid orangey brown silty sands with occasional charcoal flecks, and measured between 0.07m and 0.26m in depth. A natural hollow, **F.19**, was also excavated to illustrate the distinction between the pits and the compact, powdery fills and irregular profiles of the natural 'features' found in sporadic patches across the site. The shallow depth of the pits suggests that the features have been exposed to considerable truncation, presumably relating to the Medieval and later agricultural use of the site; for example, pit **F.6** was cut by the later ditch **F.4**. Nevertheless, similarities across the dimensions of the pits enabled identification of four pairings cut within a crescent distribution (**F.9** and **F.10; F.11** and **F.12; F.15** and **F.16; F.17** and **F.18**).

Six pits (**F.6, F.10, F.12, F.15, F.16** and **F.18**) contained small quantities of worked flint, with diagnostic pieces characterised by blade based technologies typical of the earlier Neolithic period. A single plain body sherd of flint-tempered early Neolithic pottery was recovered during excavation of **F.6**, and an additional small sherd with the same fabric was recovered from the heavy residue of the bulk environmental sample. Processing of bulk environmental samples from the pits produced small and poorly preserved plant remains that appear to represent intrusive material (see de Vareilles, below). This is perhaps not altogether surprising given the history of the site and its long-term use for grain storage and processing; this may equally apply to the small fragments of bone recovered from the heavy residues of **F.6**, **F.16** and **F.18** (Table 2), although these would not be inconsistent within other Neolithic pit assemblages.

Two small postholes (**F.13** and **F.14**) were situated either side of pit **F.12**. These had straight vertical sides with concave, slightly tapered bases. **F.13** measured 0.13m in diameter and was 0.12m deep, whilst **F.14** was 0.17m in diameter and 0.13m deep. Both were filled with dark grey clayey sand and were devoid of finds. A Neolithic date is likely through association to the pit assembly.

A surface find (SF 3) of a Neolithic flint end scraper was found situated alongside the north end of the post-medieval ditch **F.2**, and perhaps illustrates later truncation of a northeast continuation of the pit features.

Feature	Diameter (m)	Depth (m)	Pottery no. (weight g)	Struck flint no. (weight g)	Burnt flint no. (weight g)	Paired with
6	0.7	0.26	1 (4.5)	3 (2)	2 (6.2)	
7	0.55	0.09				
8	0.42	0.07				
9	0.82	0.13				F. 10
10	0.75	0.16		1 (0.4)	2 (2)	F. 9
11	0.42	0.1				F. 12
12	0.47	0.12		4 (1352.3)		F.11
15	0.81	0.22		2 (0.7)	2 (73.5)	F.16
16	0.81	0.22		1 (0.5)		F. 15
17	0.58	0.07				F. 18
18	0.52	0.07		2 (7)	1 (39)	F. 17

Table 1. Dimensions and hand recovered find densities of the Neolithic pits.

Feature	Sample no.	Pottery no. (weight g)	Struck flint (weight g)	Burnt flint no. (weight g)	Bone no. (weight g)
6	1	1 (1.4)	1 (0.1)		3 (0.2)
10	3				1 (0.1)
16	5		1 (0.2)	1 (2)	1 (0.1)
18	6				1 (0.1)

Table 2. Artefacts recovered from the environmental sampling of the Neolithic pits

Medieval

Little evidence for Medieval activity was recorded. A single sherd of green glazed medieval pottery (SF 1) dateable to the 13th-15th century was collected from the surface of the upper horizon, which may relate to a remnant of the old land surface impressed through compaction into the subsoil deposit. An additional small abraded sherd from the post-Medieval ditch **F.2** also may date to this period.

Post-Medieval

Five post-Medieval features were identified: two nineteenth century pits, and three 16th or 17th Century ditches.

The three ditches (**F.2**, **F.3** and **F.4**) were each aligned upon an east-northeast orientation. The most substantial of these, ditch **F.2**, was 1.3m wide and 0.45m deep with a V-shaped profile. Two 1m slots showed that it contained a single fill of moderately firm mid-yellowish brown clayey silty-sand with occasional charcoal flecks and several sherds of post-Medieval pottery dateable to the 16th or 17th century. Although containing a fill similar to **F.2** (and with occasional patches of charcoal), ditches **F.3** and **F.4** were considerably smaller and were rounded in profile to a depth of 0.14m. A single 1m slot revealed opposing termini of **F.3** and **F.4**, situated alongside one another and overlapping by approximately 1m. No clear chronological separation could be identified between **F.3** and **F.4**, which along with **F.2** appear to comprise part of a field system of a type that would have characterised the south Cambridge landscape of allotted fields prior to the development of the railway.

Two substantial pits **(F.1** and **F.5)** were excavated to the north of the site. **F.1** was circular, 3.6m in diameter and 0.75m deep, while **F.5** was rectilinear in plan, 8.6m long, 1.75m wide and 1.1m in depth. Both pits were filled with compact dark grey clayey silts and contained quantities of post-Medieval artefacts including pottery, clay pipe, animal bone, glass and metal. Within the pottery assemblage were sherds dateable to the 19th century mixed with residual 16th or 17th century sherds and a 17th century copper alloy farthing. These clearly predate the erection of the buildings associated with Foster's Bothers corn depot (dated to circa.1860s), and are possibly also a remnant of the agricultural landscape (or at least attest to the early stages of its transformation with the arrival of the railways in the 1840s).

DISCUSSION

It was fortuitous that an 'island' of archaeology lay preserved within an area that has experienced fairly intensive construction and demolition since the mid-19th century. Nevertheless, test pitting over the entire CB1 development site since 2005 has identified a 'north-south swathe' of undisturbed ground that is 'unambiguous in its high level of survival' (Mackay 2005:15). The current development area represents the northernmost tip of this extended 'island' that has been noted for its paucity of archaeology, or at least artefactual evidence. Nevertheless, Neolithic, Medieval and post-Medieval archaeology were all identified during the project, the implications of which are discussed in detail below.

Neolithic

With the exception of 19 later Neolithic worked flints found residual to Romano-British quarry pits a few hundred metres southwest of the development area (Mackay 2005; Slater 2010), there was little expectation for Neolithic activity during the investigations. Indeed previous investigations have understandably considered

residual finds as representative of 'background noise' of an otherwise quiet archaeological landscape (Mackay 2005: 18). However, the rarity of clustered features or in situ deposits from the earlier centuries of this period across the region is testament to the significance of this particular finding. Discussion of the character and purpose of pits and the deposits therein, along with the formation of pit group sites has in recent years become increasingly central to studies of Neolithic settlement and mobility. Interpretation has predominantly represented these features as (perhaps along with tree-throws and a few other exceptions) the only archaeologically visible remains of the settlements of relatively mobile communities inhabiting the river valleys of mainly woodland dominated landscapes of lowland Britain (Richards and Thomas 1984; Thomas 1999: chapter 3; Garrow *et al*. 2005; Garrow 2006; 2007; Anderson-Whymark and Thomas 2012). Discussion here will therefore focus upon the nature and context of the eleven early Neolithic pits and two post holes found within the development area, with consideration of their implications to broader understanding of regional pit groups from this period.

Notwithstanding the potential truncation of features by later agriculture, the finds assemblage from the pits encountered in the lower archaeological horizon was small. Of the eleven pits encountered at this horizon, six contained between 1 and 4 worked flints, totalling 13, which included a large core (1352g) that is likely to have derived from a non-local (upper-chalk) source. Five of these same pits also contained burnt unworked flint, four contained very small fragments of burnt and unburnt bone, and the addition of two sherds of pottery is attributed to just one of these pits. The similarities across the pit morphologies and fill types suggest that the pits that did not contain any artefacts may also be attributed to this period. Moreover, the morphological similarities were particularly noted within eight of the pits that appear to have been dug side by side in four pairs within a loose east-west linear or slight crescent distribution that would probably have continued in either direction if not for the truncation by 19th century construction and more recent demolition activity.

There is considerable regional variation in the spatial arrangement of early Neolithic pit clusters (see Garrow 2006: 27). At some East Anglian sites, notably Kilverstone (Garrow *et al*. 2006) and Hurst Fen (Clark *et al*. 1960), some pit clusters appear to be arranged in relative formality with multiple closely set pits forming groupings within sub-rectangular or linear arrangements. The pits within the development area appear to be comparable with less formally arranged clusters, such as those excavated in the lower Ouse valley at Barleycroft Paddocks (Evans and Knight 1997), where looser clusters with seemingly paired pits were encountered. Here three ovoid post- or stakehole settings were found near to or within the areas of early Neolithic pitting. Whilst two post holes found within the development area do not in themselves make a structure as such, their proximity to, and respect for the pits is an unlikely coincidence, and perhaps represents the remnant of a larger setting, perhaps to the south of the pit group.

Individually the pits are typical of Early Neolithic examples excavated elsewhere in the region. These display regular and shallow morphologies and few homogenous fills that together are generally seen to provide evidence of rapid backfilling with the purpose of receiving 'midden-like' deposits rich in domestic waste, perhaps indicating the clearance of occupation refuse (Thomas 1999: chapter 3; Garrow 2006). In this light, the low density of finds assembled within the pits from the development area

would be regarded as somewhat unusual. The impact of later agricultural truncation should not be overlooked, although there were no signs of ridge and furrow cultivation. Likewise, removal of potentially artefact-rich pits within the area by more recent construction or demolition activity is a realistic possibility. Whatever the case, nearly half of the pits did not contain finds, and with the exception of a single large core the finds assemblage is dominated by low numbers of mainly small and fragmentary artefacts. These could have become inadvertently incorporated into the deposits filling the pits. The pit group therefore belies any simple interpretation of pits acting purely as receptacles for artefact rich midden-like fills representative of short-lived occupation episodes. This instance is not unique to the region. At the Colmworth Business Park in Eaton Socon, north Cambridgeshire, ten small pits were attributed to the early Neolithic on grounds of morphology, fill and their proximity to one another, and yet only two yielded material culture, albeit in fairly significant quantities, which also included round-based plain early Neolithic bowl (Swaysland 2005). Likewise, at Sutton Gault, also in north Cambridgeshire, 43 pits were assigned an early Neolithic date, with 18 producing significant finds assemblages, but 25 containing little or no material culture (Tabor 2011). More intensive research would be necessary to speculate as to the comparative 'normality' of artefact-rich pit assemblages (likewise, see Evans *et al*. 2009: 177-8 for discussion of 'empty' Neolithic pits), but the eleven pits from the development area are clearly problematic for the received view.

Recent overviews of the Early Neolithic of Eastern England have emphasised the importance of the major river valleys as major landscape corridors with a wealth of evidence for Neolithic settlement and ceremonial activity on the gravel terraces of these river systems (Evans and Hodder 2006; Harding and Healy 2007; Healy *et al*. 2012). Although the record of the uplands and interfluves of these river systems include monuments such as long barrows and enclosures, as well as situated and dispersed artefact scatters, the activities represented appear to be somewhat peripheral to the focus upon the valleys proper and may often reflect more specialised and episodic occupation and activity. This broad pattern resonates with the available evidence for Early Neolithic activity in the Cam/Granta valley. Transient settlement/domestic activity is best attested on the gravel terraces such as that represented within the development area. Here sites containing dispersed individual pits have been identified at the Hutchinson site, Addenbrookes (Evans *et al*. 2008: 28), and small pit groups at Glebe Farm, Trumpington (Collins 2011), and nearby in association with a springhead at Trumpington Meadows (Patten, forthcoming). Elsewhere, for example at Stow Cum-Quy (Thatcher 2007), large assemblages of Early Neolithic pottery and flint have been recovered from natural hollows (see also Evans *et al*. 2008: 187). The spectacular and extensive lithic scatters on the fen edge, on terrace gravels and sands adjacent to the Cam at Lode and the Swaffhams, offer a glimpse of the true potential scale of Neolithic settlement in certain areas of the valley (Hall 1996). Neolithic monuments along the gravel terraces include the recently excavated Early Neolithic ring ditches at Trumpington Meadows (Patten, forthcoming) and a probable causewayed enclosure at Landbeach (Oswald *et al*. 2001), and two human burials have been identified from a utilised solution hollow at Fordham (Connor & Mortimer, forthcoming).

Whilst the context of the pits found within the development area is difficult to situate in terms of its immediate vicinity the growing evidence for activity during this period

within the Cambridge environs is proving to display particular research potential, and clearly any future investigations along semi-urban Cambridge terrace gravels should take this into account with the likelihood for rare and situated preservation.

Medieval and Post-Medieval

Medieval activity is represented by two sherds of pottery, neither of which was securely stratified, and is perhaps the remnant of a Medieval ploughsoil. The post-Medieval features included ditches containing 16-17th century pottery forming part of a field system that likely relate to small holdings and the agricultural use of the site until the development of the railway in the mid 19th century. Other, possibly pre-Railway activity might be represented by the large 19th century pits which are similar to features identified to the north of the development area within the Great Eastern House excavations that were cutting a relict agricultural soil (Slater 2011). Whilst an agricultural purpose is likely, these might equally result from activity associated with the establishment and use of the early rail system.

CONCLUSION

The discovery of an early Neolithic pit group in an area that has seen considerable agricultural, construction and demolition activity since at least the 17th century was unexpected and is undoubtedly fortuitous, but nonetheless highlights the capacity for localised preservation in semi-urban, and perhaps even intensively developed environments. The nature of both the Neolithic features and finds assemblage emphasises the local and regional variability seen in the practices associated with pit digging and deposition. This has significant implications for our understanding of the tempo and character of Early Neolithic activity which has yet to be articulated in detail. The additional post-Medieval findings appear to conform with current understandings of the CB1 area, attesting to its agricultural use prior to the development of the railway and its subsequent development.

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Many thanks go to Hill Residential Ltd for commissioning the project and for their support throughout its duration. The excavations were carried out by Marcus Brittain, and the CAU Project Manager was Alison Dickens. The site was surveyed and digitally planned by Brian Crosson, who also produced the additional graphics.

APPENDICES – SPECIALIST REPORTS

Appendix 1 - Prehistoric pottery
with Mark Knight

Two plain body sherds of handmade pottery weighing 6g were recovered from pit F.6. The fabric, consisting of poorly sorted flint inclusions, indicates an early Neolithic date, with the sherds probably deriving from a round based vessel of bowl form.

Appenix 2 - Flint
Lawrence Billington

A total of 17 worked flints and 11 unworked burnt flints were recovered from the excavations. The assemblage is quantified in Table 2.

Feature	Type	Chip/spall	Flake/fragment	Blade/fragment	Core	End scraper	Total worked	Burnt unworked
3	ditch	1					1	
6	pit	1	2	1			4	2
10	pit		1				1	2
12	pit	3			1		4	
15	pit	2					2	5
16	pit	1		1			2	1
18	pit			2			2	1
surface find						1	1	

Table 3. Quantification of the flint assemblage.

The majority of the flintwork was recovered from a group of pits, one of which (F.6) also contained a sherd of early Neolithic pottery. The flintwork from these features, six of which produced small quantities of flint, is consistent with an early Neolithic date, composed largely of blade based debitage. No retouched forms or obviously utilised pieces were recovered from the pits although an end scraper collected from the surface of the site is probably broadly contemporary with the activity represented by the pits. The most interesting component of the pit assemblage was the recovery of a large core, consisting of a large flint nodule with a single striking platform from which a series of somewhat irregular blades and blade based flakes have been removed. The core weighs 1352g and is largely unworked, retaining its nodular form with irregular rounded protuberances and is mostly covered by a relatively unweathered, abrasive cortex. It is very unlikely that a nodule of this form and condition could be collected from the local gravels and it is probable that it was

recovered from deposits associated with the flint bearing upper chalk which outcrops a minimum of 5km to the south of the site.

Appendix 3 – Medieval and Post-Medieval finds
with Craig Cessford and Andrew Hall

The excavation of the post-medieval ditches and pits as well as the collection of surface finds resulted in the recovery of small assemblages of pottery, animal bone, tile, brick, shell, glass, metal and clay tobacco pipe, quantified in Table 4. With the exception of two sherds of glazed Medieval pottery collected from the surface of the site, all of this material is of post-medieval date, with the pottery dominated by 18th and 19th century material. A copper farthing of James I or Charles I (dating to the first half of the 17th century) was recovered as a residual element within pit F.5.

Material	Feature	Context	Feature type	No.	Weight (g)	Comments
animal bone	F. 1	[2]	Pit	2	3.3	Post-Medieval
animal bone	SF.1			3	16.8	
brick	F. 1	[2]	Pit	1	29.8	Post-Medieval
brick/tile	F. 5	[12]	Pit	2	12.5	Post-Medieval
brick/tile	F. 5	[13]	Pit	1	3.7	Post-Medieval
brick/tile	SF.1			1	8.1	
burnt stone	F. 12	[30]	Pit	2	38	Neolithic
burnt stone	F. 6	[18]	Pit	1	4.2	Neolithic
burnt stone	SF.1			1	31	
Cu alloy	F. 5	[12]	Pit	1	0.5	Post-Medieval context. Copper farthing of James I or Charles I, 17th century
Fe	F. 1	[2]	Pit	4	36.1	Post-Medieval. Three nails, one nail(?) fragment
Fe	F. 4	[9]	Ditch	1	0.7	Post-Medieval. Nail(?) fragment
Fe	F. 5	[12]	Pit	1	29.6	Post-Medieval context. Unidentified bent iron strip
Fe	F.2	[5]	Pit	1	0.7	Post-Medieval. Nail(?) fragment
Fe	SF.1			3	3.5	two unidentified fragments one

						nail/tack
Fe	SF.2			1	5.4	Nail
glass	F. 1	[2]	Pit	2	12.1	Post Medieval
glass	F. 5	[12]	Pit	1	16.4	Post Medieval
pottery	F. 1	[2]	Pit	5	51.6	Post Medieval. Includes C19th sherds
pottery	F. 2	[5]	Ditch	2	1.4	Post Medieval. One C16th-17th, one possibly C13th-15th
pottery	F. 2	[15]	Ditch	1	2.1	C16-17th
pottery	F. 5	[12]	Pit	14	102.2	Post Medieval. Includes C19th sherds
pottery	F. 5	[13]	Pit	1	12.8	Post Medieval. Includes C19th sherds
pottery	SF.1			4	18.8	One sherd of C13-15th
pottery	SF.2			4	5.4	
shell	F. 1	[2]	Pit	5	5.1	Post Medieval. Fragments of oyster shell
shell	SF.1			3	3.9	Fragments of oyster shell
tile	F. 1	[2]	Pit	2	55.2	Post Medieval
tobacco pipe	F. 1	[2]	Pit	9	18.1	Post Medieval. Stem fragments
tobacco pipe	F. 5	[12]	Pit	14	32.5	Post Medieval. Stem fragments
tobacco pipe	F. 5	[13]	Pit	3	11.4	Post Medieval. Stem fragments

Table 4. Medieval and post-Medieval finds

Appendix 4 - Assessment of Bulk Environmental Samples

Anne de Vareilles

Methodology

Six bulk soil samples from Neolithic pits were processed using an Ankara-type flotation machine. The flots were collected in 300µm aperture meshes and the remaining heavy residues washed over a 1mm mesh. The flots and heavy residues were dried indoors prior to analysis. The >4mm fractions of the heavy residues were sorted by eye by Jacqui Hutton; a few, very small and abraded finds were recovered and have been added to Table 5. Sorting of the flots and identification of macro remains were carried out by the author using a low power binocular microscope (6x-

40x magnification). Identification was made using the reference collection of the G. Pitt-Rivers Laboratory, University of Cambridge. Nomenclature follows Zohary and Hopf (2000) for cereals and an updated version of Beedham (1972) for molluscs. All environmental remains are listed in Table 5.

Preservation

The flots were all very small, consisting of the occasional cereal grain and small, frequently vitrified charcoal. Amongst the wood charcoal 'bubbly' vitrified parenchyma (plant storage tissue) was present, potentially from seeds and tubers though identifications could not be made. The blind-burrowing snail *Ceciloides acicula* was present throughout. The physical nature and composition of the recovered assemblages suggests that remains are not *in situ*; all interpretations and meaning drawn from them must therefore remain tentative.

Results

A single grain of hulled barley was found in F.6 (*Hordeum vulgare sl*.). Another unexpected find is the probable grain of spelt wheat from F.3 (*Triticum spelta*). Spelt is not documented for the Neolithic and finds of naked barley are far more common than hulled (cf. Grieg 1991, Garrow *et al*. 2006). The two grains are likely to be intrusive from a later period and should not be used to understand or date the features. The third and final grain came from F.16. Wild seeds and nuts were not present.

Conclusion

The artefacts and ecofacts from the bulk soil samples were in very poor condition and a rare occasion. They seem to have travelled a lot since deposition and are certainly not *in situ*. Information from these finds about the nature and purpose of the Neolithic pits must remain elusive.

Sample number		**1**	**2**	**3**	**4**	**5**	**6**
Context		18	24	26	36	38	42
Feature		6	9	10	15	16	18
Feature type		Neolithic Pits					
Sample volume - litres		11	10	8	12	15	5
Charcoal volume - mililitres, estimates		<1ml.	<1ml.	<1ml.	<1ml.	<1ml.	<1ml.
Flot fraction examined - %		100	100	100	100	100	100
large charcoal (>4mm)					-	-	
medium charcoal (2-4mm)		-	-	-	+	+	+
small charcoal (<2mm)		+++	+++	+++	+++	+++	+++
vitrified wood and storage tissue		++	+++	+++	+++	+++	+++
Cereal grains							
Hordeum vulgare sensu lato	hulled barley grains	1					
cf. *Triticum spelta*	possible spelt wheat grain			1			
Triticum spelta/dicoccum	spelt or emmer wheat grain					1	
Ceciloides acicula Müller –Blind burrowing snail		P	P	P	P	P	P
Other items from >4mm residues							
Bone		-		- burnt		-	-
flint		-				-	
burnt flint						-	
Pottery sherd		-		-		-	

Key: - 1 or 2 items, + ≤10 items, ++ 11-50 items, +++ >50 items. P = present

Table 5: Charred Plant Macro Remains and other Finds from the Bulk Soil Samples.

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Figure 1. Location map

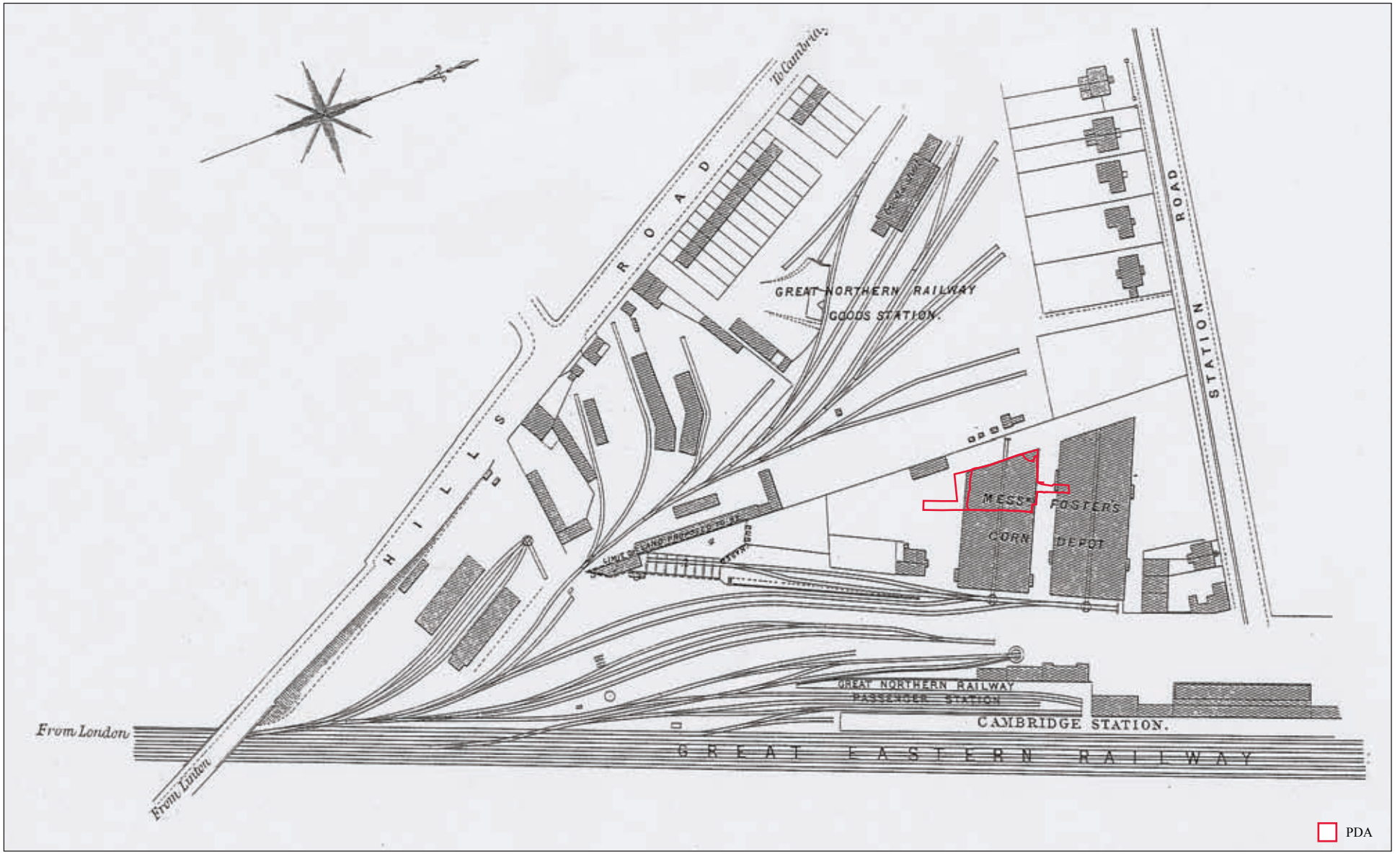

Figure 2. 1880 Quarter Session Plan of Station Area.

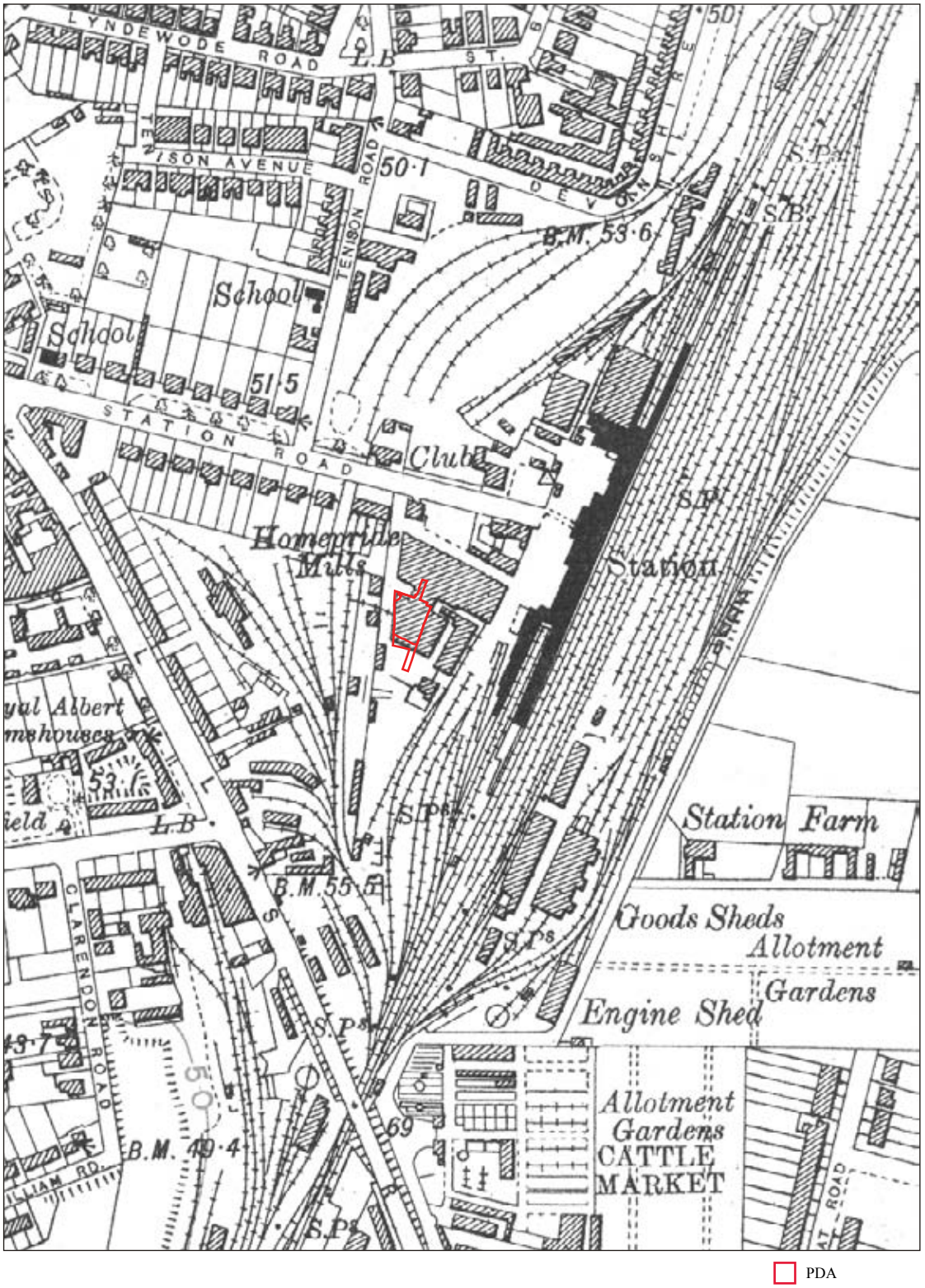

Figure 3. OS 6" series 1927 (detail).

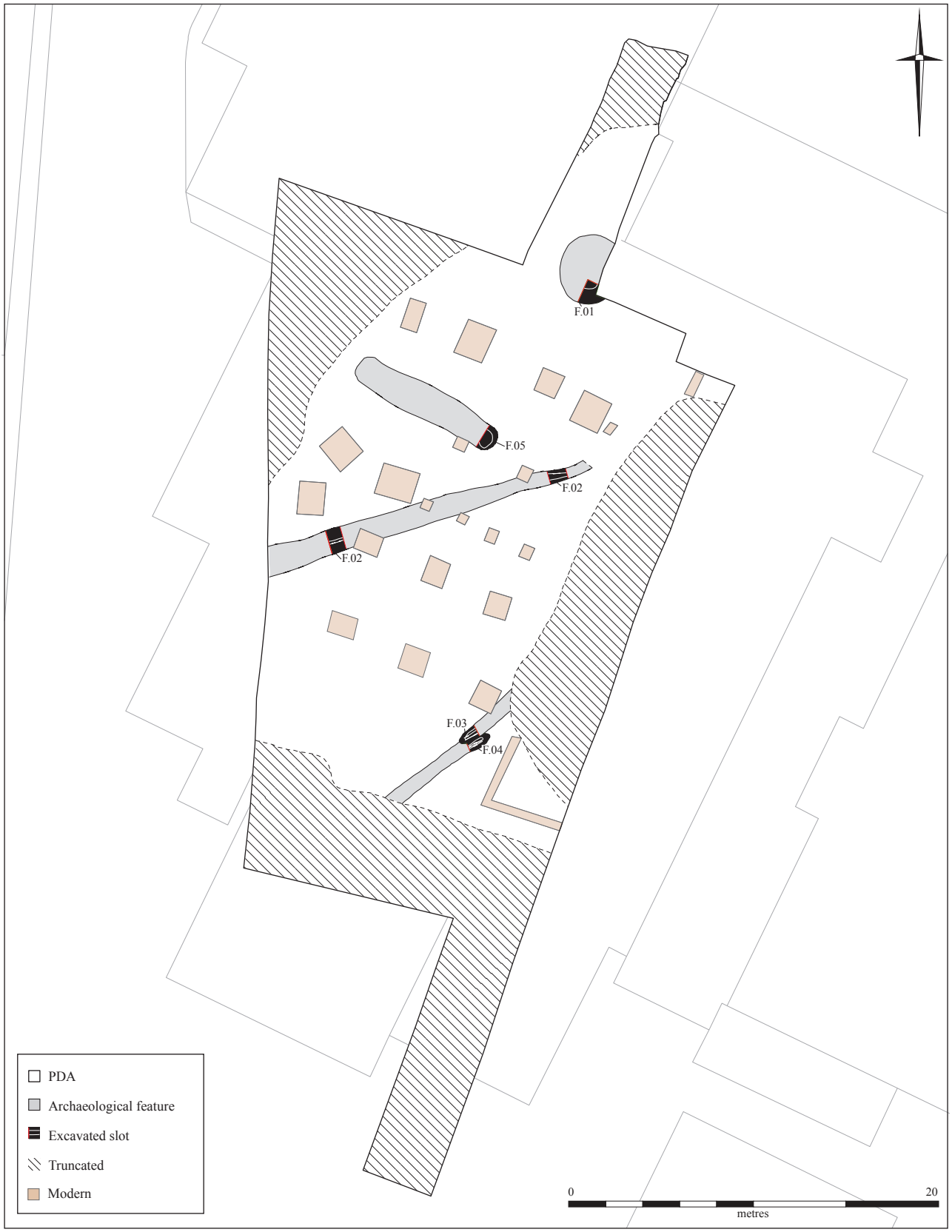

Figure 4. Plan showing post-Medieval features.

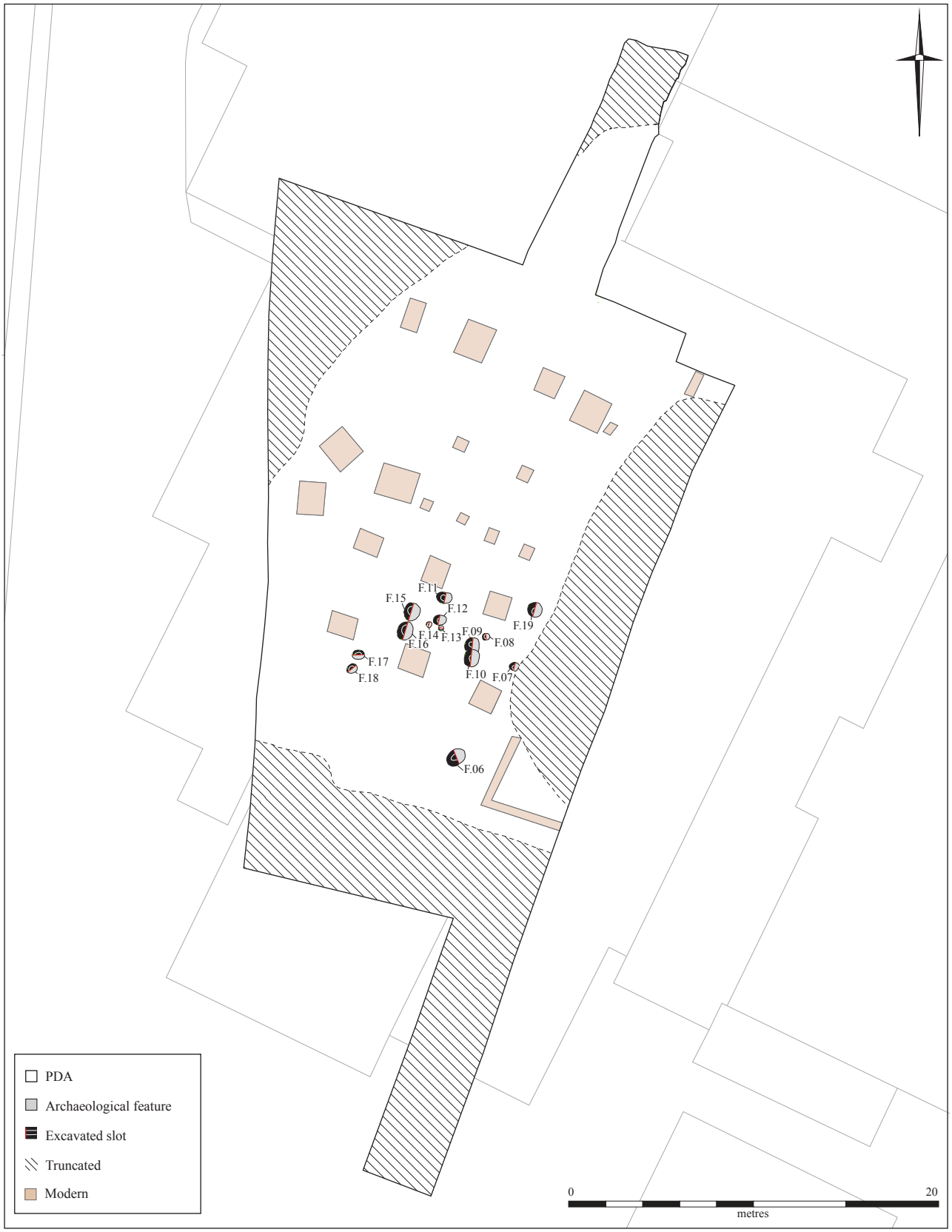

Figure 5. Plan showing Early-Neolithic pit group.

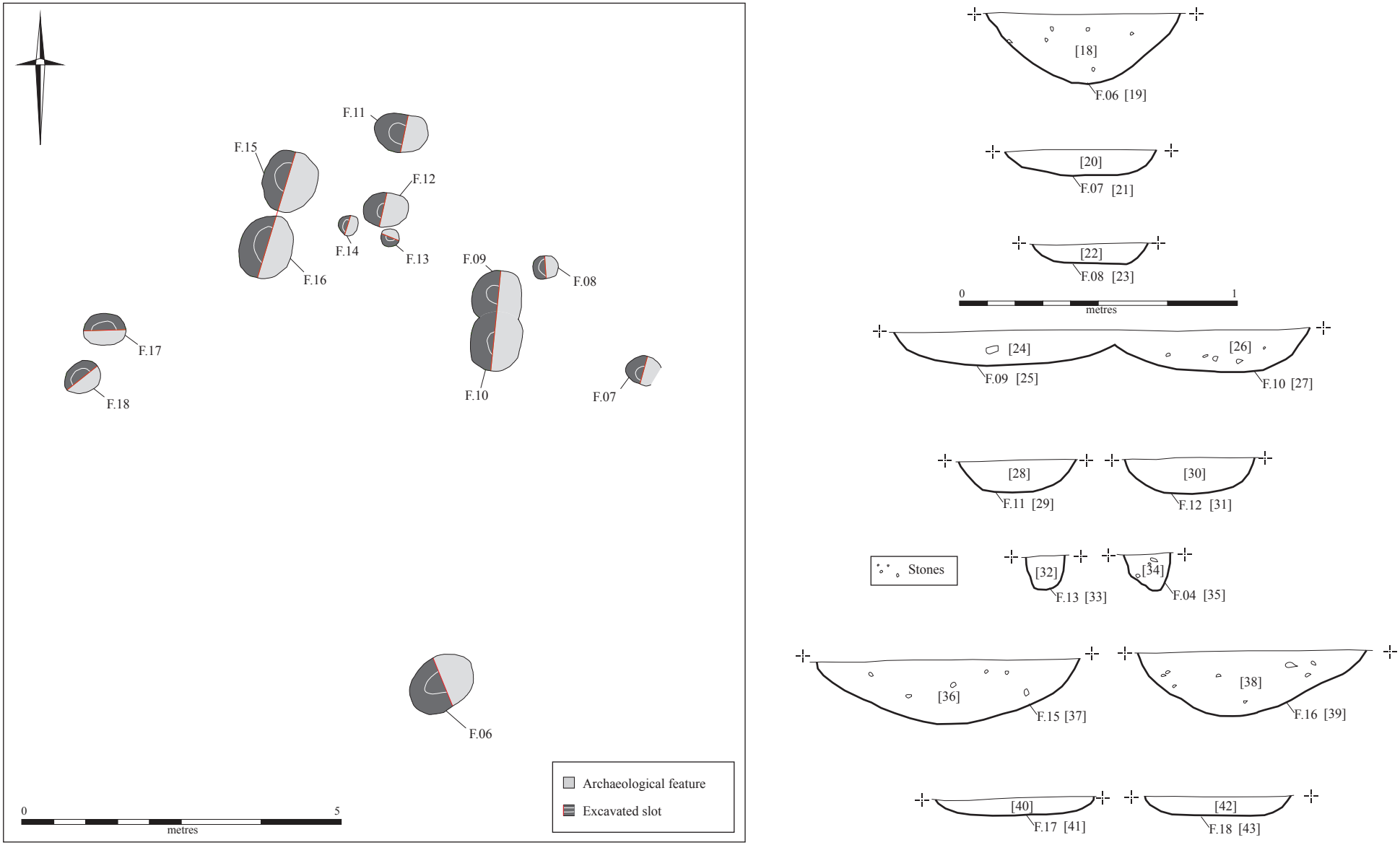

Figure 6. Plan and sections of Early-Neolithic pit group.

OASIS DATA COLLECTION FORM: England

OASIS ID: cambridg3-127464

Project details	
Project name	Hill Residential Site and Foster's Mill (CB1), Cambridge: An archaeological investigation
Short description of the project	An archaeological investigation at the Hill Residential CB1 development site, South Cambridge, revealed two distinct phases of archaeology. The first consisted of a dispersed cluster of eleven small pits, dated to the Early Neolithic. Later activity was restricted to evidence for a 16th/17th century agricultural field system and two large 19th pits, potentially resulting from activities associated with the earliest development of the Cambridge Railway Station.
Project dates	Start: 13-02-2012 End: 20-02-2012
Previous/future work	Yes / No
Any associated project reference codes	CRR10 - Sitecode
Type of project	Recording project
Site status	None
Current Land use	Residential 1 - General Residential
Monument type	PITS Early Neolithic
Monument type	DITCHES Post Medieval
Monument type	PITS Post Medieval
Significant Finds	FLINT Early Neolithic

Significant Finds	POTTERY Early Neolithic
Investigation type	'Full excavation'
Prompt	Direction from Local Planning Authority - PPG16

Project location	
Country	England
Site location	CAMBRIDGESHIRE CAMBRIDGE CAMBRIDGE Hill Residential Site and Foster's Mill
Postcode	CB1
Study area	835.00 Square metres
Site coordinates	TL 546072 257182 51.9080464799 0.247843562122 51 54 28 N 000 14 52 E Point
Height OD / Depth	Min: 15.00m Max: 15.00m

Project creators	
Name of Organisation	Cambridge Archaeological Unit
Project brief originator	City/Nat. Park/District/Borough archaeologist
Project design originator	Alison Dickens
Project director/manager	Alison Dickens
Project supervisor	Marcus Brittain
Type of sponsor/funding body	Developer

Name of sponsor/funding body	Hill Residential Ltd
Project archives	
Physical Archive recipient	Cambridge Archaeological Unit
Physical Archive ID	CRR12
Physical Contents	'Animal Bones','Ceramics','Environmental','Metal','Worked stone/lithics'
Digital Archive recipient	Cambridge Archaeological Unit
Digital Archive ID	CRR12
Digital Contents	'none'
Digital Media available	'GIS','Images raster / digital photography','Spreadsheets','Survey','Text'
Paper Archive recipient	Cambridge Archaeological Unit
Paper Contents	'none'
Paper Media available	'Context sheet','Drawing','Map','Notebook - Excavation',' Research',' General Notes','Photograph','Plan','Report','Section','Survey '
Entered by	Marcus Brittain (mb654@cam.ac.uk)
Entered on	29 May 2012