Further Excavations at Striplands Farm
West Longstanton, Cambridgeshire

Duncan Mackay with
Mark Knight

CAMBRIDGE ARCHAEOLOGICAL UNIT
UNIVERSITY OF CAMBRIDGE

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Duncan Mackay with Mark Knight
With Contributions by
Matt Brudenell, Andrew McLaren, Maisie Taylor, Simon Timberlake, Rachel Causier, Chris Swaysland, Anne de Vareilles and Steve Boreham

Illustrations by Vicky Herring and Andrew Hall

Cambridge Archaeological Unit
UNIVERSITY OF CAMBRIDGE
March 2007
Report No.764

ECB2575

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Introduction

The Cambridge Archaeological Unit (CAU) conducted a small archaeological excavation at Striplands Farm, Longstanton, between the 20th June and 8th August 2006. Primarily consisting of a single open area just 15 metres square, the focus was a large, circular Bronze Age pit-well discovered during excavation work the previous year (Patten and Evans 2005). Through the excavation of several similar features during this previous work, it was known that the feature was likely to contain well-preserved organics, including worked timbers, in the lower, waterlogged layers. Commissioned by WSP Environmental on the behalf of Gallaghers Ltd, the work was undertaken in accordance with a CAU specification document and in agreement with Cambridgeshire County Council.

Striplands Farm lies on the north-western edge of Longstanton, *c*. 9km north of Cambridge (NGR 539330 267900 (TL 394 673)). The geology consisted of Third Terrace river gravels overlying Ampthill clay. The open area was located on disused arable farm land.

Archaeological Background

The Longstanton landscape has been the focus for extensive fieldwork carried out by the CAU in recent years, in conjunction with the Cambridge Guided Busway (Cessford and Mackay 2004) and Northstowe projects (Evans and Mackay 2004; Evans *et al.* 2006, 2007). The most pertinent work to this report, however, was carried out on Striplands Farm during the Striplands Farm West excavations of 2005 (Patten and Evans 2005), during the course of which the object of the present study was evaluated, and the surrounding site excavated. The reader is referred to this report in the first instance, the present study in many ways forming an addendum to it.

The 2005 excavations revealed intermittent domestic occupation of the site during the Late Bronze Age, Roman and Saxo-Norman periods. Five other Late Bronze Age pit-wells were excavated during that phase of fieldwork, producing an impressive assemblage of preserved wooden items, including log ladders and axe hafts. Broadly contemporary with these were post-hole buildings and a ditched enclosure, all lying within a dispersed settlement.

Methodology

A geophysical survey had been carried out, by Oxford Archaeotechnics, north of the main areas of the 2005 excavation up to the proposed line of the Cambridgeshire Guided Bus, highlighting a possible ring ditch. On the strength of this, and previous trenches, two areas were therefore highlighted for further work, firstly the unexcavated pit-well, which would suffer greatly from any drop in the water-table associated with future development (Area 1), and the ring ditch on the geophysical plot (Area 2).

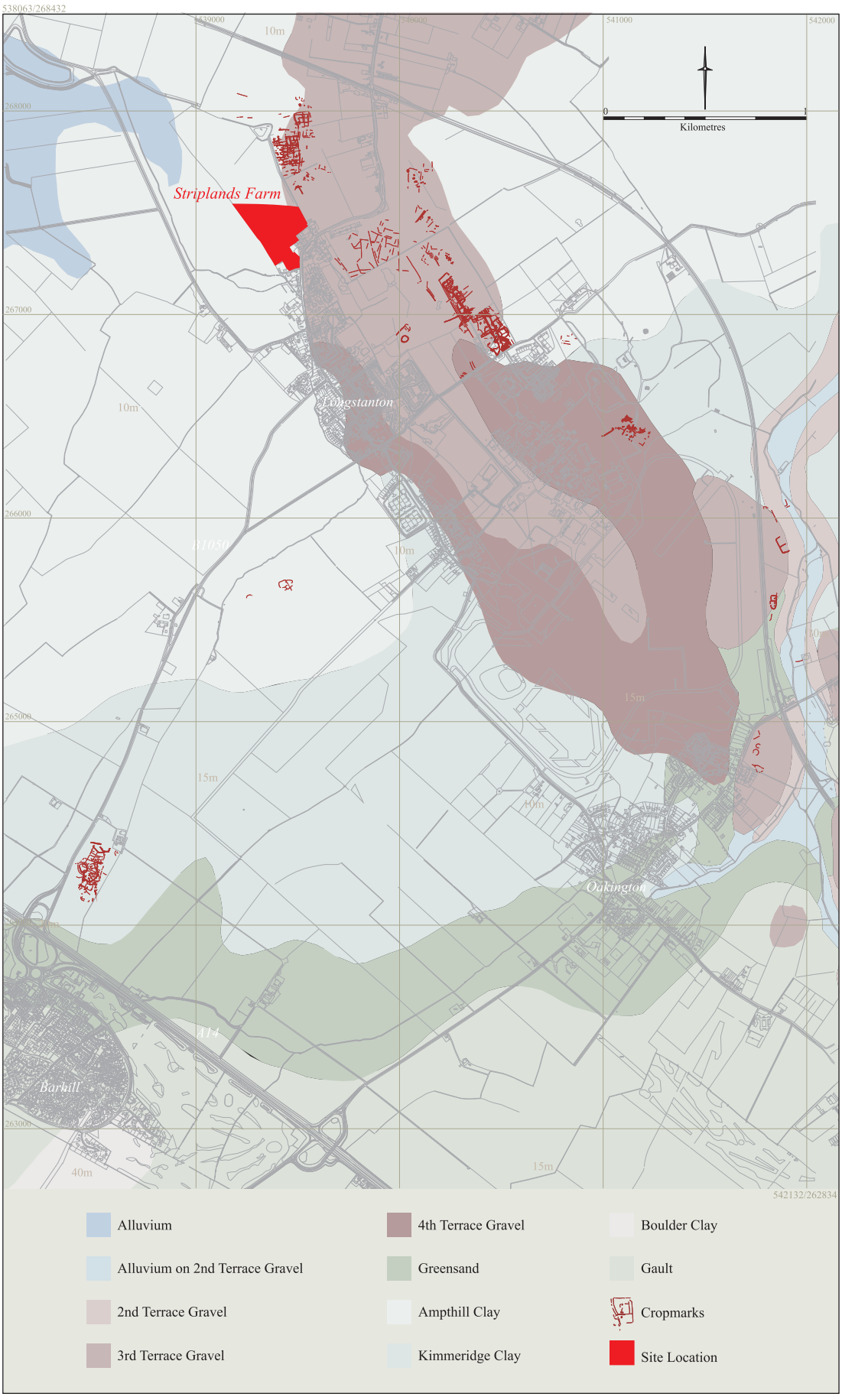

Figure 1. Site Location and Geology

Figure 2. Location of the 2006 trenches and previous work

Excavation of the open areas was carried out by a 360º mechanical excavator with a toothless ditching bucket down to the level of the archaeology. Each area was planned at a scale of 1:50 and fixed to the OS grid with GPS. All archaeological features were recorded in profile at a scale of 1:10. Features were photographed on digital and film mediums. Features were metal-detected, although no archaeologically significant artefacts were recovered as a result. The Unit modified version of the MoLAS recording system was employed throughout, with all cut stratigraphic events assigned feature numbers (F. #) and all contexts assigned individual numbers e.g. [a cut] [a fill]. Feature and context numbers were started at 500 for features and 1200 for contexts.

Results

Area 1

Area 1 was a 15 metre square open area (Figure. 3). The focus of this excavation was F.504, a large, oval pit-well measuring 8.5m x 7.25m. Nineteen other features were uncovered, fourteen pits and post-holes, and five linears. The linears, F.506, F.507, F.510, F.511 and F.512, were all very narrow and shallow, the greatest dimensions being 0.50m wide and 0.14m deep, and F.512, although appearing clearly on the surface, was only 0.01m deep, obviously the base of an originally very shallow feature. Although four lay on a parallel northwest-southeast alignment, F.512 lay on an east-west line, but was in every other way similar to the others, and lay amongst them. Indeed, F.510, F.511 and F.512 all butt-ended within 2.00m of each other. All of these shallow ditch bases, except for F.512, lay on the Romano-British ditch alignment recognized in 2005, and F.506 and F.507 both project convincingly to continue as features exposed in the 2005 excavation (Patten and Evans 2006, Area D). Certainly, the only relationships exposed between the linears and the surrounding features showed F.512 to clearly cut both the well F.504, and pit F.508. The only finds recovered from these ditches were small amounts of pot, bone, flint and burnt stone, most of which was probably residual, particularly in F.507, which cut through features containing similar but larger assemblages. The single piece of Roman pottery was actually recovered from pit F.508, but as this originated from a section cut by ditch F.507, its true context remains uncertain; this was a sandy greyware sherd of the 1st to 2nd century A.D. (K. Anderson pers.com).

The pits and post-holes (F.505, F.508-9, F.513-16, F.518-23 and F.532) may have been broadly contemporary with the well, many yielding similar finds and a small assemblage of comparable pottery. Although none of the post-holes were obviously structural, two separate pairs of neat post-holes may have indicated small four-post structures, with the remaining posts no longer existing or obscured (in the case of F.513 and F.532), or lying outside of the excavation area (in the case of F.519 and F.520). Certainly, the distance between these post-holes was similar to the slightly rectangular possible four-poster found in Area 2 (again, with one hole lying beyond the edge of excavation), and F.513, at only 0.04m deep, would certainly indicate that others may not have survived.

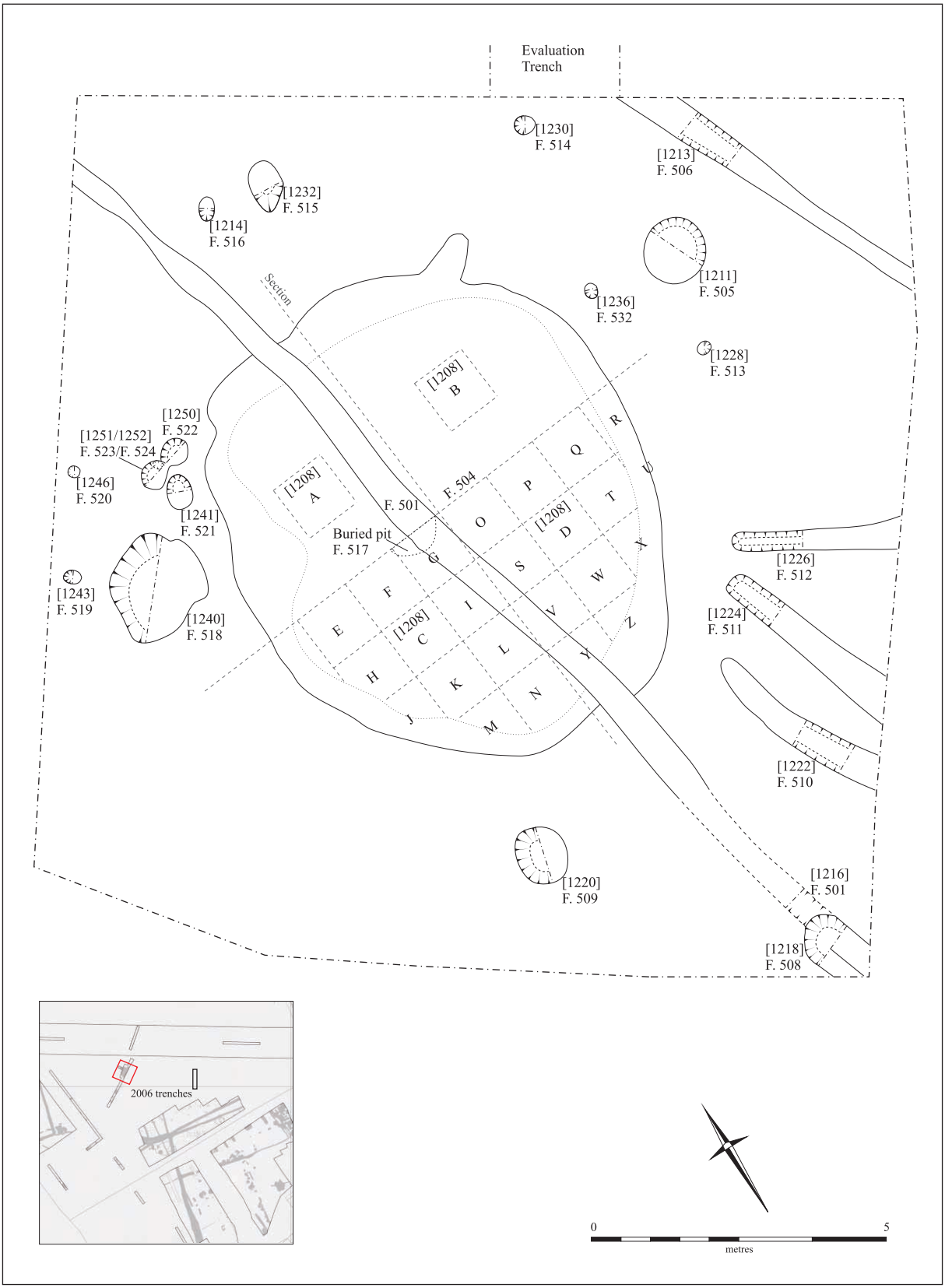

Figure 3. Area 1

The Pit-Well

Feature **F.504** was a very large oval-shaped watering hole punctuated by four smaller re-cuts across its base (**F.525**, **F.526**, **F.530** and **F.531**). Its lowest deposits were waterlogged and contained large amounts of worked wood (including four log-ladders) and clumps of deciduous leaves. A 0.07m thick iron pan horizon marked the division between the waterlogged and 'dry' deposits, occurring at about 6.60m OD.

The re-cut sequence at the base of F.504 began with F.530, a sub-rectangular pit, which contained what appeared to be a collapsed wooden tripod structure. The tripod comprised three worked logs (<012>, <013> and <014>), two of which had roughly made mortise holes. The mortise through <013> was pierced by a pair of roundwood withies or ties which may have once held the tripod together. A small pit, F.531, was cut into the northern edge of F.530.

The fills of F.530 were truncated by F.526, a deeper and narrower shaft-like pit located within the southern half of F.504. Ovoid in plan, F.526 was 1.75m deep with a base that reached the 4.85m OD mark. The current water table was encountered at 5.15m OD, making the bottom fills difficult to excavate. The infill sequence of F.526 comprised pale grey, or sometimes silver, sandy silts interrupted by lenses of dark black or brown organic silts. Its lower perimeter was also 'lined' with clumps of preserved leaves. Three log-ladders (<003>, <010> and <011>) and a large branch with possible side-branch steps (<006>) were inserted into these basal silts with their bases stopping at or around the 5.25m OD horizon. This succession of access ladders (one replacing the other) must presumably be indicative of both the extended maintenance of the watering hole as well as the disposability of log-ladders.

A fourth log-ladder (<002>) was found within the adjacent re-cut F.525. Situated to the north-west of F.526, F.525 was a smaller, shallower hollow of similar depth to F.530 (*c*. 6.05m OD). The log-ladder was positioned centrally to the hollow giving access from the north-western edge whilst the north-eastern edge was pierced by a small wooden stake (<024>).

A 'boggy' spread of preserved wood fragments ([1265]) made up mostly of small branches and twigs, but including a crudely worked wooden trough (<001>), as well as the articulated lower legs of a wild boar, covered the tops of the re-cuts. This in turn was covered by a 0.35m thick band of re-deposited orange clay ([1275]) of similar composition to the surrounding natural. This band of clay effectively sealed in the waterlogged deposits.

The late re-cut **F.517** cut into the waterlogged deposit, exposing the top of the wooden stake (<024>) located within F.525. F.517 was cut from high up in F.504's profile, but prior to the artefact-rich capping deposit [1208].

The uppermost deposits of F.504 were split into quadrants along its most symmetrical axes, and a single 1m square test pit excavated in each to the base of the rich capping layer [1208]. This gave an indication of artefact densities, which were clearly greatest in the southern half. The southern quadrant was laid out in a 1m square grid and excavated by square to the base of [1208]. The north quadrant was hand-excavated,

but not subjected to further 1m square sampling. Both of these quadrants were then hand excavated to the top of the waterlogged levels. At this depth it was necessary to reduce the upstanding quadrants for safety reasons. The eastern quadrant was sampled by 1m squares to the base of [1208], and then machined down to the top of the waterlogged layers. The western quadrant was not subjected to further sampling of the capping layer, and was machine-excavated to the waterlogged levels.

The capping layer, [1208], covered the entire surface of the well except for a *c*. 0.50m strip around the edge of the feature. This layer was a dark grey and black clay silt with an ashy texture and frequent charcoal flecks. Although thin bands of charcoal-rich silt were sometimes visible in section, this layer was relatively homogenous, and whilst unlikely to have been a single depositional event, seemingly had no great longevity or complexity to it. This layer was rich in artefacts, containing a total of 21,126g of pottery and also contained impressive quantities of bone, flint, burnt flint, burnt stone and burnt clay from the three quadrants hand-excavated (including the single test-square in the west quadrant).

By far the richest assemblage came from the eastern quadrant, containing the largest quantity of each artefact type. The south quadrant produced the next largest amount in all types by weight, although the northern quadrant contained a greater number of pieces of bone, despite containing a lower weight. The western quadrant, which was not hand-dug, had only the single metre square box to compare with the others. Interestingly, it contained no pottery or bone at all, but the quantities of flint, burnt clay, burnt stone and burnt flint were comparable with squares in the other three quadrants (Figure. 8).

The conclusions that can be drawn from this distribution are necessarily vague. Certainly, the concentration of artefacts, and pottery in particular, increased towards the southeast, facing the mass of post-holes and several known structures found in the 2005 fieldwork. In this instance, the concentration of artefacts would not simply be a case of more items naturally working their way into the feature the closer it lay to a settlement, but that deliberate dumping from the settlement would be likely to enter the feature from the same side. With artefacts tending to remain on the side they are dumped on more than the soil, ash and lighter waste that came with them, the artefact concentration should hint at this point of origin.

Layer [1208] sealed a less substantial layer, [1255], which was very different in character, being a mid yellowish grey-brown fine silt-clay of moderate compaction, and with comparatively few finds. The fine, well-settled and homogenous quality of this layer may suggest that it was not a deliberate dump and may have accumulated over time, with no great deposits or slumps of material. This seems to have been the continuation of an ongoing process, the more clayey and iron-panned deposit below, [1256], being distinct only because of its proximity to the water-table, both when it was laid and in the intervening period. During the machining down of the east and west quadrants a saddle quern with associated rubbing stone were recovered from [1256], located at the approximate centre of the feature. Given the good condition of the pieces, and lying together, it would be reasonable to suggest that these were ‘placed’ within the relict feature and deliberately left.

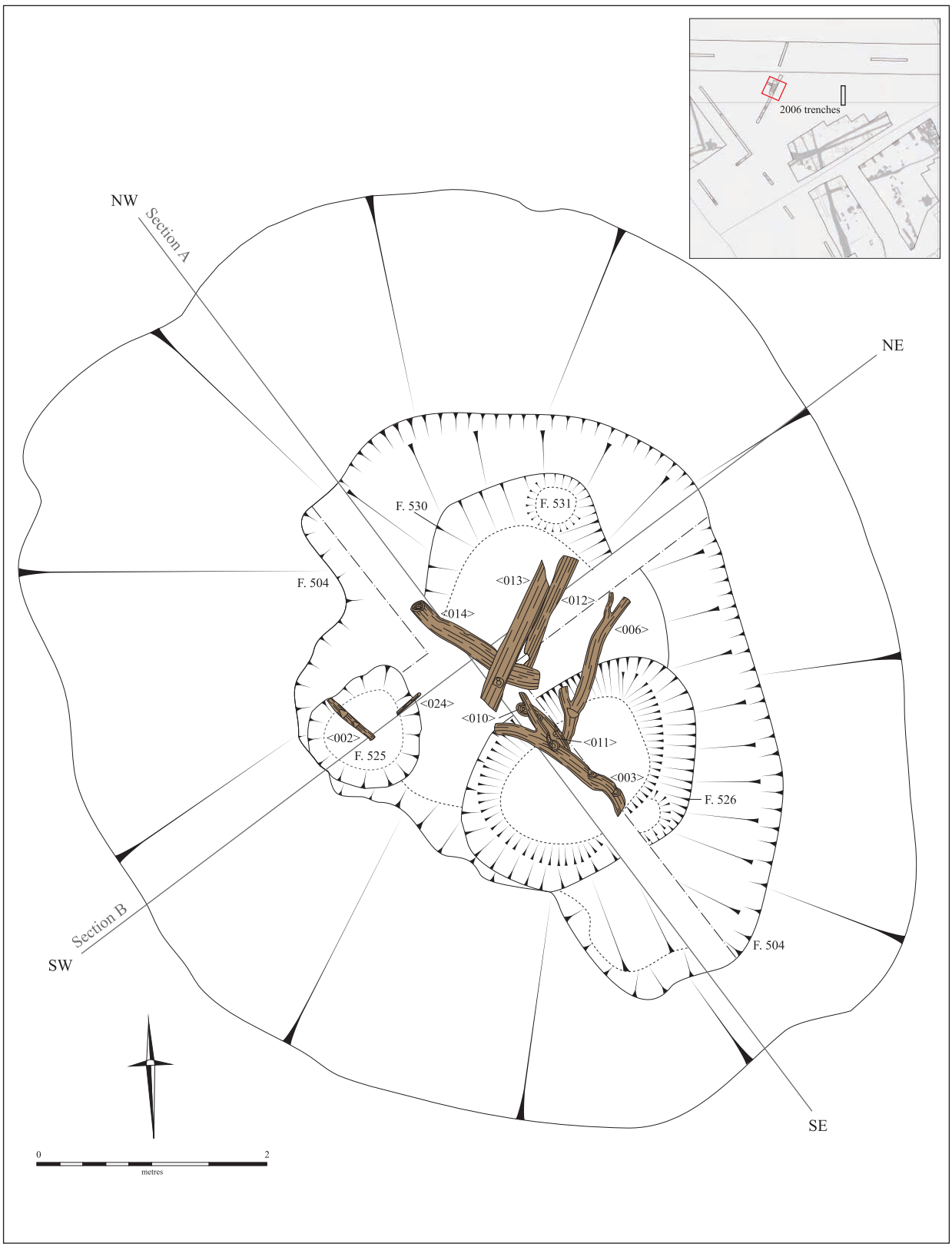

Figure 4. Plan of pit-well

Collapsed 'Tripod' <012>, <013>, <014>

'Tripod' mortise <013> with 'withy'

Log Ladder <003> in F. 526

Log Ladder <002> in F. 525

Figure 5. Worked timbers

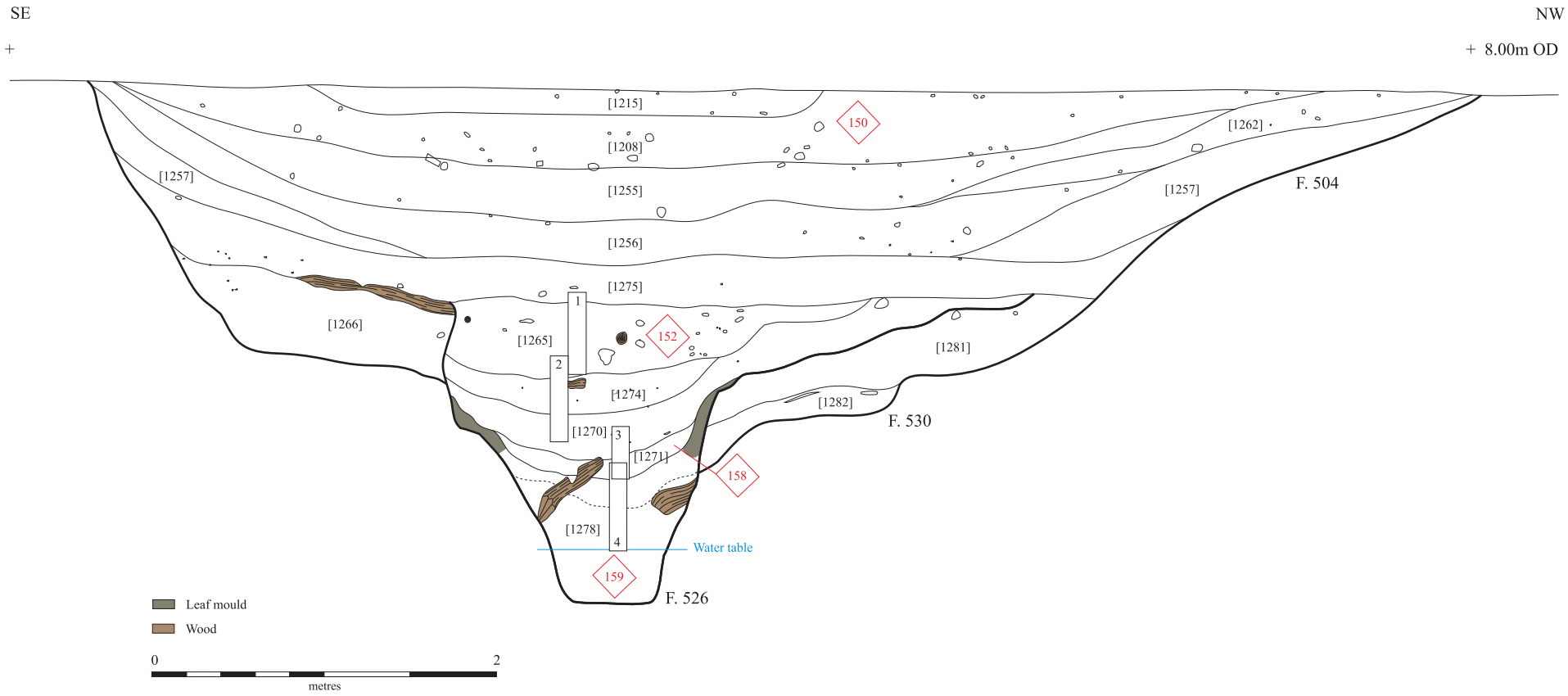

Figure 6. Section A

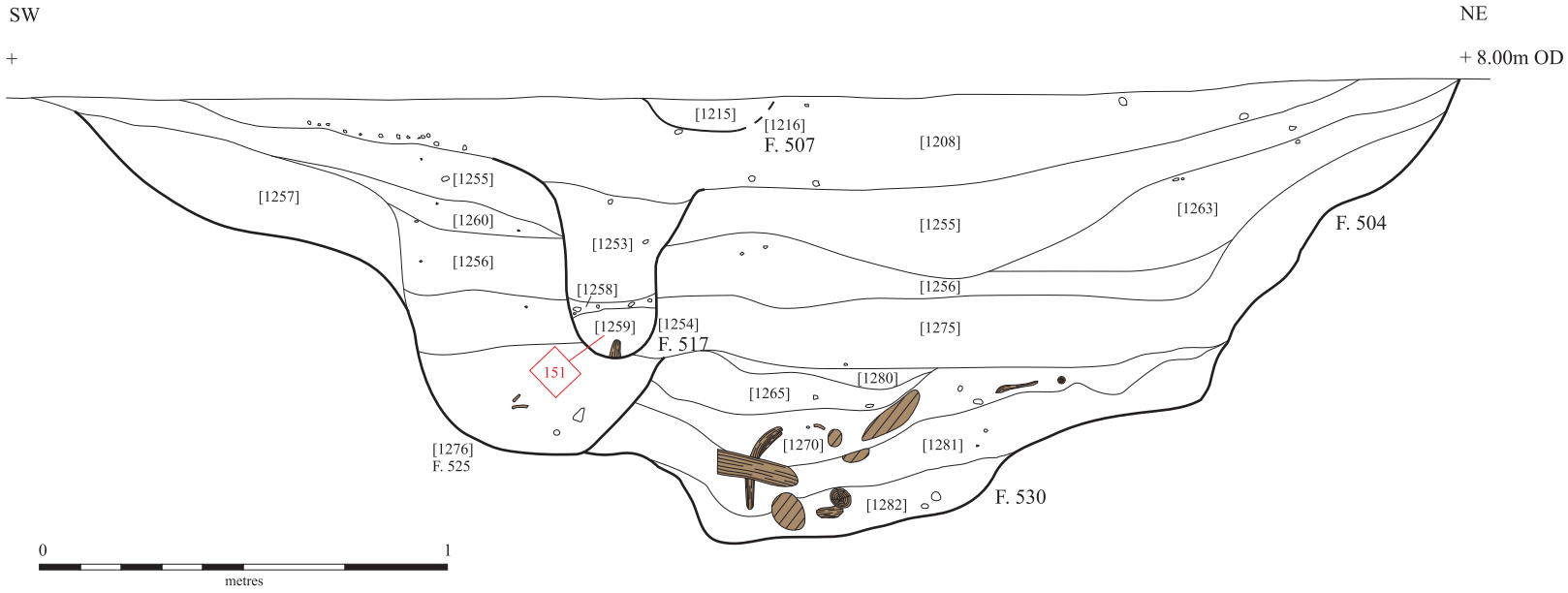

Figure 7. Section B

Figure 8. Distributions of Flint, Pottery and Bone within [1208] F. 504.

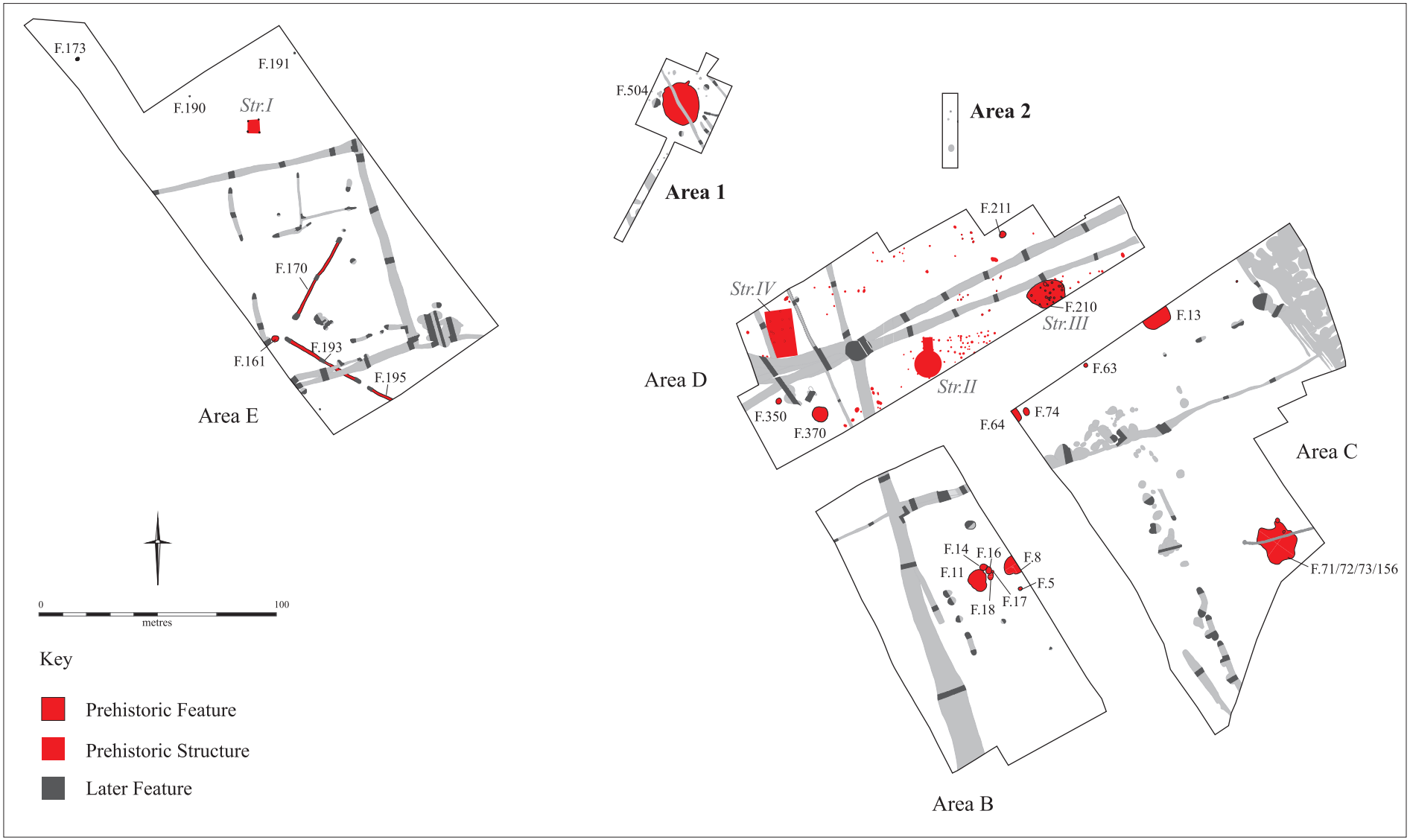

Figure 9. Prehistoric Features

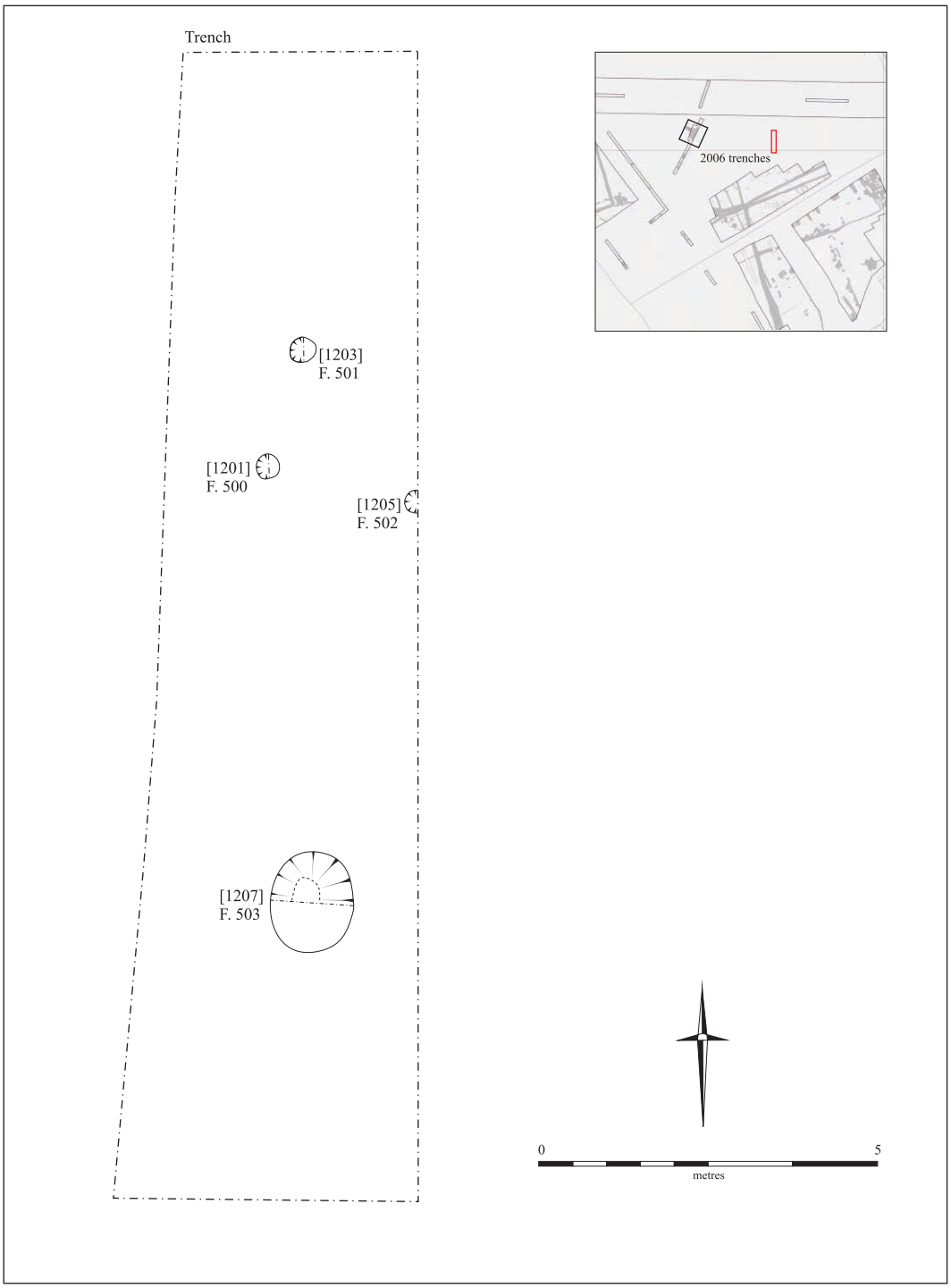

Figure 10. Area 2

Feature Descriptions

F.504 Pit-well. Fills [1208, 1255-7, 1260-3, 1265-9], cut [1287]. Capped by dark grey-black clay-silt with frequent charcoal [1208]. This sealed [1255] and [1256], mid yellow grey-brown clay-silts overlying the top of the water-table. [1265] was the uppermost level of waterlogged material, below which was much intercutting of pits recutting and deepening the feature.

F.505 Pit. Fills [1209, 1210, 1214], cut [1211]. Fill a mid brown-grey sandy clay-silt sealing a dark grey silt-clay with frequent charcoal and a mid brown-grey silt-clay basal fill. Circular, 1.10m diameter, depth 0.50m with a U-shaped profile.

F.506 Ditch, NW-SE alignment. Fill [1212], cut [1213]. Fill a pale yellow-grey clayey silt, occasional pea grit. Width 0.43m, depth 0.14m with a shallow, rounded profile.

F.507 Ditch, NW-SE alignment. Fill [1215], cut [1216]. Fill a dark brown-grey silt-clay. Cut over the top of pit F.508 and well F.504. Width 0.50m, depth 0.08m with a shallow, rounded profile.

F.508 Pit. Fill [1217], cut [1218]. Fill a dark brown-grey silt-clay. Only partially exposed. Elongated, 0.88m wide, depth 0.29m with a rounded V-shaped profile.

F.509 Pit. Fill [1219], cut [1220]. Fill a mid grey-brown orange-mottled silt-clay, occasional pea grit. Oval, 0.99m x 0.82m, depth 0.17m with a wide bowl-shaped profile and gently rounded base.

F.510 Ditch, NW-SE alignment. Fill [1221], cut [1222]. Fill a mid to dark brown-grey clayey silt. Width 0.40m, depth 0.05m with a shallow, rounded profile.

F.511 Ditch, NW-SE alignment. Fill [1223], cut [1224]. Fill a mid to dark brown-grey clayey silt. Width 0.50m, depth 0.03m with a shallow, flat profile.

F.512 Ditch, NW-SE alignment. Fill [1225], cut [1226]. Fill a mid to dark brown-grey clayey silt. Width 0.32m, depth 0.01m with a shallow, flat profile.

F.513 Post-hole. Fill [1227], cut [1228]. Fill a mid to dark brown-grey clayey silt. Circular, 0.18m diameter, depth 0.04m with a wide U-shaped profile.

F.514 Post-hole. Fill [1229], cut [1230]. Fill a mid grey clayey fine silt-clay, moderate charcoal. Circular, 0.26m diameter, depth 0.14m with a U-shaped profile.

F.515 Pit. Fill [1231], cut [1232]. Fill a mid grey silt-clay, occasional gravel. Oval, 0.93m x 0.52m, depth 0.14m with a rounded profile.

F.516 Post-hole. Fill [1233], cut [1234]. Fill a pale grey silt-clay. Oval, 0.34m x 0.18m, depth 0.14m with a U-shaped profile.

F.517 Pit. Fills [1253, 1258, 1259], cut [1254]. Fill a grey-black silt clay with moderate charcoal. The basal fills, [1258] and [1259] were similar but much smoother and mottled, lying at the edge of the water-table.. Cut through well F.504, seemingly sealed by the capping layer [1208]. Sub-circular, 0.80m diameter, depth 0.90m with a deep U-shaped profile.

F.518 Pit. Fills [1237-9], cut [1240]. Fill a mid yellow-grey silt-clay, occasional charcoal. Amorphous oval, 1.83m x 1.70m, depth 0.22m with a wide, flat profile.

F.519 Post-hole. Fill [1241-2], cut [1243]. Fill a mid brown silty clay over redeposited natural. Sub-circular, 0.35m x 1.23m, depth 0.17m with a V-shaped profile.

F.520 Post-hole. Fill [1244], cut [1245]. Fill a mid grey clay-silt and redeposited natural. Sub-circular, 0.25m x 0.21m, depth 0.07m with a U-shaped profile.

F.521 Pit. Fill [1247], cut [1248]. Fill a pale grey silt mixed with redeposited gravel. Oval, 0.70m x 0.37m, depth 0.06m with a shallow, rounded profile.
F.522 Post-hole. Fill [1249], cut [1250]. Fill a pale grey silt mixed with redeposited gravel. Sub-circular, 0.39m x 0.30m, depth 0.13m with a rounded V-shaped profile.

F.523/4 Post-hole. Fill [1249], cuts [1251-2]. Fill a pale grey silt mixed with redeposited gravel. Sub-circular, but possibly two joining cuts, 0.60m x 0.50m, depth 0.17m with a double U-shaped profile.

F.525 Pit within F.504. Fill [1279], cut [1276]. Fill a dark grey-brown gritty clay-silt. Sub-circular, 1.10m x 1.00m, depth 0.50m with a U-shaped profile.

F.526 Pit within F.504. Fill [1270-5, 1278], cut [1277]. Fill a series of mid and dark grey silt-clays with surviving wood and organics overlying rich brown and grey organic-rich basal layers. Oval, 2.40m x 1.90m, depth 1.80m with a U-shaped profile.

F.530 Pit within F.504. Fill [1280-5], cut [1286]. Fill a dark and mid grey sandy clay. Sub-circular, partially obscured, relatively shallow cut into base of F.504, c. 2.00m diameter, depth 0.39m with a U-shaped profile.

F.531 Pit within F.504. Fill [1288], cut [1289]. Fill a pale grey organic, greasy, sandy clay. Sub-circular, c.0.50m diameter.

F.532 Post-hole. Fill [1235], cut [1236]. Fill a dark brown-grey clay-silt, occasional pea grit. Sub-circular, 0.23m x 0.20m, depth 0.10m with a U-shaped profile.

Area 2

Area 2 was a small open area measuring 17m x 4m. Four features were uncovered, consisting of three post-holes (F.500-2) and a pit (F.503). The three post-holes appeared to form three corners of a slightly rectangular four-post structure, although the fourth post-hole lay beyond the edge of excavation. The apparent structure of the post-holes could be coincidental – Area D in the 2005 excavation, and lying beside this area, contained many post-holes grouped in small clusters, and these were generally difficult to give any form or structure to. Such clusters of post-holes are typical of the Late Bronze Age, and a structural form is often impossible to ascribe.

The pit lay 6m to the south of the structure. A small quantity of bone was recovered from the pit, but no other finds were recovered from this area.

F.500 Post-hole. Fill [1200], cut [1201]. Fill a mid brown sandy silt, occasional charcoal flecks and pea grit. Sub-circular, 0.31m x 0.24m, depth 0.13m with a U-shaped profile.

F.501 Post-hole. Fill [1202], cut [1203]. Fill a brown-grey clay-silt, occasional charcoal flecks and pea grit. Sub-circular, 0.31m x 0.30m, depth 0.06m with a U-shaped profile.

F.502 Post-hole. Fill [1204], cut [1205]. Fill a brown-grey clay-silt, occasional charcoal flecks and pea grit. Only partially exposed. Sub-circular, 0.29m wide, depth 0.14m with a U-shaped profile.

F.503 Pit. Fill [1206], cut [1207]. Fill a mid brown-grey clayey sandy silt, occasional pea grit. Sub-circular, 1.50m x 1.21m, depth 0.33m with a U-shaped profile.

Discussion

Pit-well F.504, whilst being very much a part of the Striplands 'group' of these features (Patten and Evans 2005), was nonetheless distinct. Its scale, in both circumference and depth, was the most substantial of the group, and the assemblage of log ladders quite exceptional for a site, let alone a single feature. Despite this, it lacked the (albeit limited) range of wooden artefacts seen elsewhere, most notably axe hafts. It did, however, contain the rough-out (or perhaps just crudely made) trough, but the paucity of utensils or vessels, as in the rest of the group, does hint at a lack of interest in wood beyond its obvious utilitarian uses. Although clearly dating to the period immediately post well, the sheer quantity of nearly contemporary ceramics from the capping fill of this feature is striking by comparison, albeit cautiously made. The lower, waterlogged layers that contained so little in the way of wooden tools or utensils likewise contained comparatively few finds of other categories, and pottery in particular. The capping layer, which contained so much material, was not waterlogged, and the original worked wood content of the layer is therefore unknown.

This, of course, must raise a question mark over the artefactual wealth of these closing deposits, and of that sealing F.504 in particular. As discussed elsewhere (see Brudenell, below) it may be that the depressions left by these wells were utilised for middening, the depression itself allowing an exceptional degree of archaeological survival. Not only is this demonstrated by comparing the assemblages of the wells with other features, but by comparison with other sites without hollows to protect the midden deposits, which might otherwise have been mounded and subsequently lost. This would make the Striplands Farm site exceptional not for being an atypically ceramic-rich Late Bronze Age site, but for the chance survival of an ordinary midden base on an otherwise modest site. If this is so, then the quantity of pottery itself tells us little about the status of the site. More striking is the make-up of the assemblage, with a very low proportion of fine wares. This was noted in the original study, and the results from F.504 show a very similar pattern. A lack of fine wares, with their associated time and care of manufacture, undoubtedly reflect a lack of status on some level, but may also be a product of the site's usage, particularly if seasonal, or related to large episodic gatherings. The dominance of coarser cooking and storage wares could suggest the 'bringing in' of stored foodstuffs from elsewhere, along with the means of preparation.

A seasonal occupation or intensity on the site is difficult to demonstrate categorically, and as suggested in the previous phase of work (Patten and Evans 2006: 76), this need not have involved any formal system of transhumance, but seasonality is hinted at. That the largest of the pit-wells had a number of recuts would not be surprising in any circumstances, but a major recut from the top of the waterlogged sequence, more than halfway up the profile of the whole feature, suggests a reoccupation on some level, be it a seasonal return to a site, or a shift of focus from one part of the site to another. Also worthy of note, although inherently ambiguous, is that despite being a huge physical undertaking in itself, there is little about the well that hints at any sort of intention of longevity. The presence of four log ladders, which themselves have an almost 'disposable' character, attests to this – they were not meant to last or to be reused, and this is in a feature with no other obvious means of access. Although other pit-wells in the group had surviving revetments, F.504 did not; the geological clay beneath the capping gravel was relatively stable and not prone to slumping.

The environment surrounding the pit is worthy of mention. Whilst the flotation sample for [1208] notes the possibility of threshing waste being dumped, few cereal grains were collected from the feature, and the combined results of flotation and pollen analysis suggested a lightly wooded, pasture-rich environment with a small amount of arable farming.

Acknowledgements

The excavations were funded by Gallaghers Estates and overseen by Sally Randell of WSP Environmental. The excavation staff were Dan Britton, Kathy Grant, Dave Williams, Martin Thorenson, Nigel Randall, Tim Vicars and Katie Campbell, and greatly assisted by the voluntary work of Robert Shepherd of Striplands Farm. The project was managed by Chris Evans, and overseen by Andy Thomas of Cambridgeshire County Council. The finds were processed by Gwladys Monteil and her team. The graphics were produced by Vicky Herring. Once more, the Shepherd family have shown enormous interest and hospitality in the annual invasion of their farm.

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Specialist Reports

Later Prehistoric Pottery (Matt Brudenell)

A substantial quantity of Late Bronze Age pottery was recovered from the excavation, totalling 2275 sherds weighing 21332g. The pottery was recovered from seven features, the vast majority deriving from Well F.504 (Table 1).

Feature	No. sherds	Weight (g)	No/Weight burnished	No. different rims	No. different bases
F.504	2238	21045	96/563	113	44
F.505	6	20	-	-	-
F.507	7	77	-	1	1
F.510	1	1	-	-	-
F.515	2	2	-	-	-
F.517	19	182	-	-	-
F.518	2	5	-	-	-
TOTAL	**2275**	**21332**	**96/563**	**114**	**45**

Table 1: Assemblage quantification

With the exception of four sherds (6g) of residual Middle Bronze Age (?) pottery from F.505, and a possible Beaker (?) sherd (4g) from F.504, all the pottery appears to date from the Late Bronze Age. The following statement is based on the rapid examination of the assemblage, with more detailed recording of the rims and bases, together with burnished and decorated sherds. The methodology follows that used for the analysis of the SFW05 Later Prehistoric pottery (Brudenell 2005). As is now standard procedure, all sherds weighing under 1g have been excluded from the analysis.

The material was in good condition with a relatively high MSW of 9.4g. The pottery consists largely of coarsewares with ill-sorted burnt-flint tempered fabrics, and occasional burnished finewares with well-sorted fine calcined flint inclusions. Fossil shell fabrics were also present, along with the occasional sherd with grog, quartz-sand, vegetal matter and quartzite (Table 2).

Fabric	No. sherds	Weight (g)	No/Weight burnished	% of assemblage (by weight)
Flint	1811	17412	93/541	81.6
Shell	384	3226	2/11	15.1
Quartz-sand	57	406	1/11	1.9
Grog	19	254	-	1.2
Quartzite	3	22	-	<1
Vegetal	1	12	-	<1

Table 2: Quantification of basic fabric groups

Although few complete or partial profiles were present, the dominant forms were bipartite ovoid vessels, including vessels with weakly shouldered ovoid bodies and upright or out-turned rims; jars with hooked rims; jars with high-pronounced or rounded shoulders with concave or inward sloping necks and short upright or out-turned rims; and biconical jars with simple short upright rims. Bowls forms were rarely present, being limited to tripartite bowls or vessels with simple open or convex profiles lacking a distinct shoulder or neck.

Decoration was relatively rare in the assemblage. Only 45 (522g) sherds were decorated (2.3%) from a maximum of 23 different vessels (Table 3).

Type of decoration	No. sherds	Weight (g)	MNV
Rim-top cabled	15	231	3
Rim-top slashed	3	16	3
Rim-top finger tip	8	103	3
Perforated neck	8	67	3
Finger-tip on neck	1	9	1
Finger-tip on shoulder	5	42	5
Cabled girth cordon	1	31	1
Finger tip/nail	1	10	1
Incised	3	13	3
TOTAL	**45**	**522**	**23**

Table 3: Type and frequency of decoration

8% of rims were decorated in the assemblage (9 from 114), equivalent to levels at SFW05 (Brudenell 2005), Toll House and Hill Lane, Broom (Brudenell forthcoming), and the levels calculated for the lower stratigraphic units A-H/J at Runnymede Bridge Area 16 (Needham 1996; 112).

Based on the total number of different rims and bases, the assemblage represents a minimum number of 159 vessels, with a rim EVE of 2.5.

Well F.504

Well F.504 contained 98% of the sherds in the assemblage. 2244 sherds (20927g) came from the upper capping deposit [1208], with only scraps found below this layer (Table 4).

Context	Square/quadrant	No. sherds	Weight (g)
1208	A	86	618
1208	B	80	685
1208	C	67	496
1208	D	144	1637
1208	F	24	277
1208	G	102	758
1208	H	17	137
1208	I	104	1436
1208	K	67	700
1208	L	189	2002
1208	M	13	105
1208	N	26	255
1208	O	156	1355
1208	P	264	3032
1208	Q	198	1408
1208	R	11	105
1208	S	197	1595
1208	T	58	447
1208	U	3	19
1208	V	39	461
1208	W	48	374
1208	X	14	102
1208	Y	35	230
1208	Z	5	23
1208	North Quad	277	2670
1255		1	4
1255	South Quad	7	61
1256	North Quad	1	3
1265	North Quad	3	33
1265		2	17

Table 4: Quantification of F.504 pottery

The pottery from [1208] represents an exceptionally large dump of ceramics. A limited programme of matching rims from the same vessel suggested that vessel fragments could be widely dispersed across the deposit. In most instances, non-refitting sherds from the same vessel were found in adjacent squares. However, on occasion, non-refitting sherds were also found across larger distances, for example between squares K and B, squares S and K, and squares S and B. This distribution indicates that ceramic material was mixed within the deposit, and that vessel were not simply broken, gathered up, and then dumped in a particular location in the hollow. In other words, vessel fragments probably had complex post-breakage histories, with varying periods of delay between breakage and final discard.

Overall, the quantity of pottery from F.504 is unusually large, containing fragments from at least 157 different vessels. This figure is considerably higher than the totals achieved from whole settlement sites recently excavated. For example, at Broom, Bedfordshire, three LBA settlements sites yielded totals of between 65-183 vessels. Whilst the totals from the Broom sub-site, Gypsy Lane, are comparable to F.504, this had a large swathe of LBA occupation, including three roundhouses and a scatter of contemporary pits and postholes. In contrast, totals from the Broom sub-sites Hill Lane and Toll House were nearly half that from SFW06. Considering that 157 of the 159 vessels from SFW06 came from a single feature, and that the area exposed was relatively small, the pottery totals are extraordinarily high.

The quantity of pottery recovered from Striplands is probably a product of the way material was deposited. The dark organic capping deposits which formed in the top of the near full-silted wells appear to constitute a generalised household refuse, representing a 'midden-like' deposit. The hollows left by the partially silted wells may have been a convenient place for the disposal of rubbish on the settlement. On other sites where similar convenient locations were unavailable, refuse may simply have been heaped into small surface rubbish piles. However, in terms of archaeological survival, the choice of rubbish heap location has had a significant impact on recovery. Only in exceptional circumstances do surface deposits remains intact, the vast majority being ploughed-out or destroyed through other forms of later activity. However, because material was deposited in a hollow at Striplands, at least part of these refuse heaps lay in hollows. The Striplands assemblage may therefore be larger, purely because parts of particular rubbish heaps survived destruction by being 'caught' in the top of the silted wells. The apparent 'ceramic poverty' of other contemporary sites is therefore likely to be a product of differential depositional processes and archaeological survival, not a meaningful reflection of site status or ceramic need. However, if it is to be accepted that the well capping deposits are fortuitous survivals, it has to be concluded that only a minute faction of the pottery used, broken and discarded on most sites becomes incorporated into the archaeological record. It is therefore debatable how reliable ceramic data is, given the unavoidably low recovery rates which can be expected from most sites.

Given the evidence, it would be easy to be pessimistic about the analytical value of most site-assemblages. In particular, it is questionable how representative recovered assemblages are of the 'living' ceramic population, and whether this population can be reconstructed or modelled sufficiently through the very low sample sizes archaeologists inevitably deal with. Some answers to these questions can be addressed by the combined SWF05 and SW06 material, given that the well assemblages can be contrasted with that recovered from the rest of the site. Preliminary analysis of the SFW05 pottery suggested that the character of the F.210 well assemblage was similar to that from the combined assemblages from other features, indicating that pits and post-hole pottery may broadly reflect the character and composition of surface deposits not normally encountered (Brudenell 2005). These results now need to be checked against the SWF06 material. Sherd size analysis should also be conducted on both assemblages to assess the other ways in which the well assemblages may or may not be different from the rest of the material.

Coarseware assemblages

Intriguingly, some of the 'unusual' characteristics of the SFW05 assemblage are repeated in the SFW06 material. As with the SFW05 assemblage, the frequency of finewares was extremely low, with only 96 sherds burnished. Although some traces of burnishing may have been removed through attrition and abrasion, the levels are still remarkable when compared with other LBA-EIA sites in the region recorded in the same way.

Site	No. burnished	Weight (g)	% of assemblage
Striplands SFW06	**96**	**563**	**4.3**
Striplands SFW05	**87**	**829**	**5.0**
Toll House, Broom	100	407	7.7
Hill Lane , Broom	87	548	9.4
Gypsy Lane, Broom	386	2236	15.8

Table 5: Comparative levels of burnishing at Striplands and Broom.

Secondly, and clearly relating to the first point, coarseware jars dominate the assemblage The high incidence of jars can be represented graphically by ascribing form assigned vessels to Barrett's (1980) five vessel classes (Figure 11). Out of the 159 different vessels present in the assemblage, 40 were sufficiently intact for ascription to the PDR form series developed by the author (Brudenell forthcoming). Only these vessels are used in the following analysis.

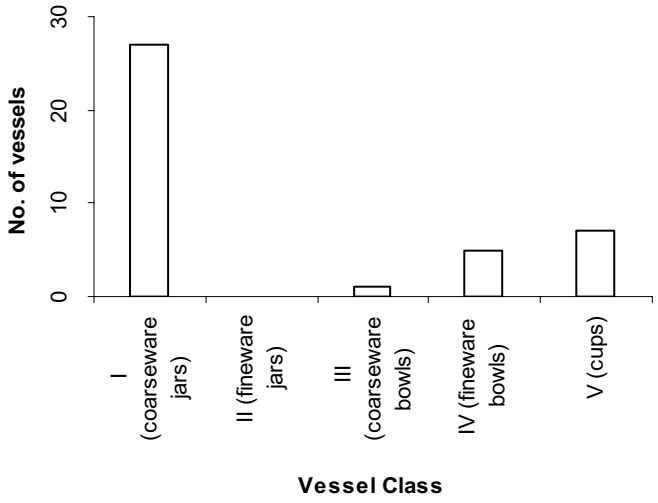


Figure 11: Form assigned vessels represented as Barrett's five vessel classes.

Barrett's vessel classes are linked to a functional distinction between fine burnished table wares used for serving and eating (Classes II and IV), and unburnished coarsewares used for cooking and storage (Class I and III). The unusually high occurrence of the latter (in particular Class I vessels) matches the pattern from the SFW05 assemblage. In the previous assessment it was argued that the finewares were either removed from the site and deposited elsewhere, or that the site had a different function to 'normal' settlements, and therefore the usual 'service' of pottery was not needed or desired. The pottery from SFW06 continues to support both hypotheses. Of relevance is the ongoing work at Must Farm, Peterborough, which is demonstrating that fineware dominated assemblages dating to the Bronze Age-Iron Age transition also occur (though the conditions of deposition at the two sites is very different). The contrast between this assemblage and that from Striplands implies that different *types* of assemblage, composed of either coarseware dominated or fineware dominated sherds, co-existed. Differences between assemblages may therefore throw light on the status of the site or its occupants.

The time and skill needed to produce highly burnished thin-walled fineware vessels suggests they were of greater significance than mere serving/eating receptacles. It is arguable, therefore, that some of these vessels were status objects; their use and deposition perhaps being carefully controlled or restricted. Certainly, the fineware bowl seems the most likely candidate as a 'status' ceramic, becoming increasingly standardised in form and decoration in the period after 800 BC, leading to the recognition of styles-zones (Cunliffe 1974). This sense of standardisation is of interest, for is it contrasts to other vessels classes which continued to be produced around broad themes rather than strict types. However, the emergence of fineware traditions is likely to have its origins in the Late Bronze Age, although these are not readily identifiable until the Early Iron Age. The relative absence of finewares at Striplands could be interpreted as an indication of low status, reflecting the inability of the community members

to either participate or wish to participate in displays of wealth, particular forms of consumption practice such as feasting, or 'elite' exchange networks.

The Striplands assemblage represents a large and important collection of Late Bronze Age pottery, with clear affiliations to the Post-Deverel Rimbury (PDR) ceramic tradition. In Eastern England, the forms and fabrics which characterise this tradition have a long currency, transgressing the conventional Bronze Age/Iron Age divide with some formal characteristics persisting from *c*. 1100-400 BC. Closer dating within this time bracket is often difficult, and the transition from early 'plainware' PDR (*c*. 1100-800 BC) to later 'decorated' PDR (post-800 BC) is not fully understood in the region (Knight 2002).

Overall, the vessel forms and frequencies, together with the very low incidence of decoration, suggest that the assemblage belongs to Barrett's Plainware PDR phase, and should be dated 1100-800 BC. In general, the nature of the SWF06 assemblage is similar to that from SWF05, being characterised by a relative absence of finewares. However, it is arguable that the assemblage is slightly earlier than that recovered from the SFW05 excavations. This assemblage was believed to straddle the Late Bronze Age/Early Iron Age divide, and based on typology, was assigned a date centred on the 9th century BC. An earlier date for the SFW06 assemblage needs to be confirmed by radiocarbon dating, though if this proves to be the case, the Striplands assemblages would provide a much needed, regionally important, ceramic sequence through the Late Bronze Age.

Lithics (Andrew McLaren)

The site yielded 1413 (16842g) flints; 459 are unburnt and worked, 11 are worked and burnt and the remaining 943 are unworked but burnt. The flints were recovered from six discrete features dated to the Late Bronze Age with the vast majority (n1333; 94%) coming from a single context [1208] in F. 504. The flints are listed by feature, type and quantity in Table 6.

F.504 - The 458 worked flints recovered from F. 504 represent a classic Late Bronze Age (LBA) domestic flint assemblage with a very minor residual Neolithic component. The paucity of small waste pieces in this assemblage and a lack of refits suggest that it is a dump of knapping debris and implements from associated settlement rather than the product of in-situ knapping.

Turning first to the residual material identified during analysis, the Neolithic is definitively represented by a blade core fragment, a single bladelet, two utilised flakes and two waste flakes bearing signs of careful core preparation and/or soft hammer percussion. This material is potentially all earlier Neolithic in date. Isolating material of possible later Neolithic/Early Bronze Age date amongst the expediently produced cores and flakes in this assemblage is much more problematic. Whilst the presence of such material cannot be discounted, taking into account the somewhat unique context of this assemblage, its overall technological character and the fact that no later Neolithic/Early Bronze features, pottery or technologically distinctive tool types were found during excavation, this seems unlikely. The presence of Neolithic flintwork in this assemblage is not surprising; Beadsmore's (2005) assessment of the lithics recovered during earlier excavations at Striplands Farm flagged up a Neolithic presence in the area.

A total of 49 cores were recovered from F. 504. These were made on locally available gravel cobbles, cobble fragments and flakes. 30 core fragments were also identified. The average maximum linear dimension and weight of the recovered cores was 43mm and 27gm respectively, a reflection of the generally small size of the available raw material. Diacritical flake scar analysis on the recovered cores

provides a valuable insight into the knapping sequence being employed. Of the 49 cores recovered, 33 have been classified as multi-platform. Of these, 17 have three or more platforms and are best described as multi-directional or opportunistic cores. These were worked in a rather haphazard fashion, the core continually turned in the hand and flakes struck from multiple unrelated platforms. Other multi-platform cores were worked in a slightly more systematic manner, in so much as three to four flakes were removed from one platform before the core was rotated (often 90º) and the process repeated from a second platform. A single opposed platform core and four bifacial cores were also identified. The latter were produced by striking alternate flakes (from a single platform) around the edge of a flake or cobble fragment.

	Feature						
Type	**504**	**517**	**507**	**508**	**510**	**518**	**Sub totals**
Waste flake	224	2		1	1	1	229
Waste blade(let)	1						1
Unmodified utilised flake	2						2
Flake shatter	48	1					49
Angular shatter	76			1			77
Blocky fragment	13			1			14
Misc. retouched flake	6						6
Misc. retouched flake shatter	1						1
Single platform core	11		1				12
Multi-platform core	33	1					34
Opposed platform core	1						1
Bifacial core	4						4
Core fragment	30	1					31
Piercer	2						2
Awl	1						1
End scraper	1						1
Side and end scraper	-	1					1
Notched flake	1						1
Hammerstone	1						1
Hammerstone frag/spall	2						2
Unworked burnt chunk/frag	931	9	1	1		1	943
Totals	1389	15	2	4	1	2	1413

Table 6: Flints from excavated features

More broadly, the recovered cores indicate a lack of knowledge of, or perhaps concern over, the knapping process. Little to no attention appears to have been given to the morphology of the flakes being produced during core reduction, the sole aim being to remove a series of otherwise useable flakes. None of the cores display any form of core preparation, be it platform faceting or overhang removal. No attempt was made to correct the numerous knapping errors visible on many of the cores; those that presented problems appear simply to have been abandoned. Maximising the output of each core was clearly not a priority either; several of the cores from F.504 bear evidence of only one or two removals prior to discard. Well over half of the cores have one or more platforms displaying numerous incipient cones, the product of multiple unsuccessful attempts to detach flakes. In several such instances, the knapper has tried unsuccessfully to remove flakes from blatantly unsuitable platform angles. Taken together, these patterns fit comfortably with the known technological characteristics of later Bronze Age cores (Young and Humphrey 1999).

The technological characteristics of the 221 recovered waste flakes are in keeping with the patterns identified for the cores. The vast majority follow the well established metrical trend of being broad and squat. This was, however, expected for an assemblage based on cobbles collected from the gravels. Although all stages of the reduction sequence are represented, secondary flakes are easily the most

dominant form. With very few exceptions, striking platforms are either flat or cortical (Andrefsky 1998: 94). A significant proportion of flat platforms bear multiple incipient cones from previous unsuccessful flake detachments. Awkward striking platform angles are also very common. Approximately 40% of complete flakes and flake shatter pieces retaining their distal ends exhibit hinged terminations. Once again, these factors point to a general lack of technical control during the reduction process.

Formal tool types are conspicuous by their rarity, accounting for only 1.1% of the total worked assemblage. This is not uncommon for later Bronze Age assemblages, which tend to be dominated by expediently worked cores, miscellaneously retouched and utilised pieces and waste flakes. Formal tool types recovered from F.504 include two piercers, an awl, an end scraper and a notched flake, all of which appear to have been expediently produced, used and discarded. Also recovered were six miscellaneously retouched flakes and a single miscellaneously retouched flake shatter piece. Importantly, the minimal and expedient production and use of retouched implements is a defining characteristic of later Bronze Age flintworking. Form does not appear to have been important by this time; rather, it is the functionality of a piece which was critical (see Herne 1992).

F.517 - A total of six struck flints were recovered from this feature. All are technologically comparable to the LBA material from F. 504. The core and scraper are typical later Bronze Age forms.

F.507 - This feature produced only one struck flint: a minimally exploited single platform core made on a small gravel pebble. Technologically, this core is comparable to those in F.504 and is almost certainly LBA in date.

F.508 - F. 508 produced a single chronologically undiagnostic waste flake along with an unworked blocky fragment and small angular shatter piece.

F.510 - F. 510 produced a single chronologically undiagnostic waste flake. The flake bears extensive edge-damage, most likely from a plough.

F.518 - A single soft-hammer struck waste flake was recovered from this feature. An Early Neolithic date is suggested.

The general technological characteristics of British later Bronze flint assemblages are now well established (see in particular Young and Humphrey 1999; Ballin 2002; Butler 2005: 179-92). So too is the trend towards less technical competence and fewer formal tool types over time (e.g. Ford *et al*. 1984; Ford 1987). Studies have also highlighted important changes in the character of stone artefact procurement and deposition from the Middle Bronze Age onwards (Edmonds 1995: 184-6; Herne 1992). To date, two broad models have been offered to account for the processes highlighted above (Ford *et al*. 1984; Herne 1992: 66-74; Edmonds 1995: 178-89; Young and Humphrey 1999). Ford *et al*.'s (1984) pioneering study emphasised *functional substitution* as the driving force behind technological change in Bronze Age lithic assemblages. More recently, authors such as Herne (1992), Edmonds (1995) and Young and Humphrey (1999) have argued for a better appreciation of the role of the changing social value of flint in the decline of lithic utilisation during the later British Bronze Age. The course of the Bronze Age, they suggest, witnessed an erosion of the central role of flint artefacts in the negotiation and maintenance of social relations and its movement towards a purely functional and utilitarian role in domestic contexts.

The significance of the Striplands Farm assemblage detailed here can be assessed in light of these broader trends. From a purely technological perspective, this assemblage neatly conforms to previous published analyses of later Bronze Age flint

assemblages in Britain. Its general crudity and paucity of formal tool types make it a typical example of a Late Bronze Age domestic flint assemblage. Technology aside, perhaps the real significance of this assemblage rests simply with its presence, in such a quantity, on a settlement dated firmly to the LBA. As assemblages such as this continue to demonstrate, struck flint artefacts continued to play an important functional role in the LBA of Britain, despite the long established presence of functionally equivalent bronze artefacts. It is now generally accepted that the displacement of lithic technology by metallurgy in Britain was a long and complex process. Clearly, it is no longer acceptable to talk about a rapid across-the-board end to flintworking in Britain as this must have occurred at different times in different places in response to wide array of economic, environmental, social and technological forces. Assemblages such as the one presented here are important for the insights they can provide into what was undoubtedly an extremely complex process in British prehistory.

Wood (Maisie Taylor)

30 pieces of wood were examined and wood sheets were completed. There are 20 pieces of roundwood, two of which are log ladders and two which may be log ladders or rough-outs for log ladders. In addition, there are two pieces of bark, four pieces of debris and one strange hacked 'lump'. Finally, there is an artefact which appears to be a rough-out for a small trough.

Using the scoring scale developed by the Humber Wetlands Project (Van de Noort, Ellis, Taylor and Weir 1995 Table 15.1) most of the material scores 3 or 4.

	MUSEUM CONSERV-ATION	TECHN-OLOGY ANALYSIS	WOODLAND MANAGEMENT	DENDRO-CHRONO-LOGY	SPECIES IDENTIFICATION
5	+	+	+	+	+
4	-	+	+	+	+
3	-	+/-	+	+	+
2	-	+/-	+/-	+/-	+
1	-	-	-	-	+/-
0	-	-	-	-	-

Table 7

The assemblage is an interesting group in its own right, but added to the material from SFW05 is particularly important. It would be considered unusual for a site to produce two log ladders. The waterhole excavated in 2006 contained two definite and two possible log ladders. The excavations in 2005 produced a miniature log ladder from one feature, with three full size ones coming from another.

There is little debris, which is interesting in itself. The few pieces are derived from larger wood working (timber), rather than from working roundwood. Other than the log ladders, and the log ladder rough-outs, most of the roundwood is worked. There are many stem which are probably from coppices, and couple of forks. The rough-out for a trough <001> appears to be of a type which has occurred at Yarnton in Oxfordshire, and, in a larger form, from Glastonbury. The log ladders <002> and <003>, and possible rough-outs <010> and <011> should be examined and compared with the ones from earlier excavations on the site as well as the recent finds made in Fengate, Peterborough, Yarnton and Thorney. The strangely shaped hacked about lump should probably be examined again.

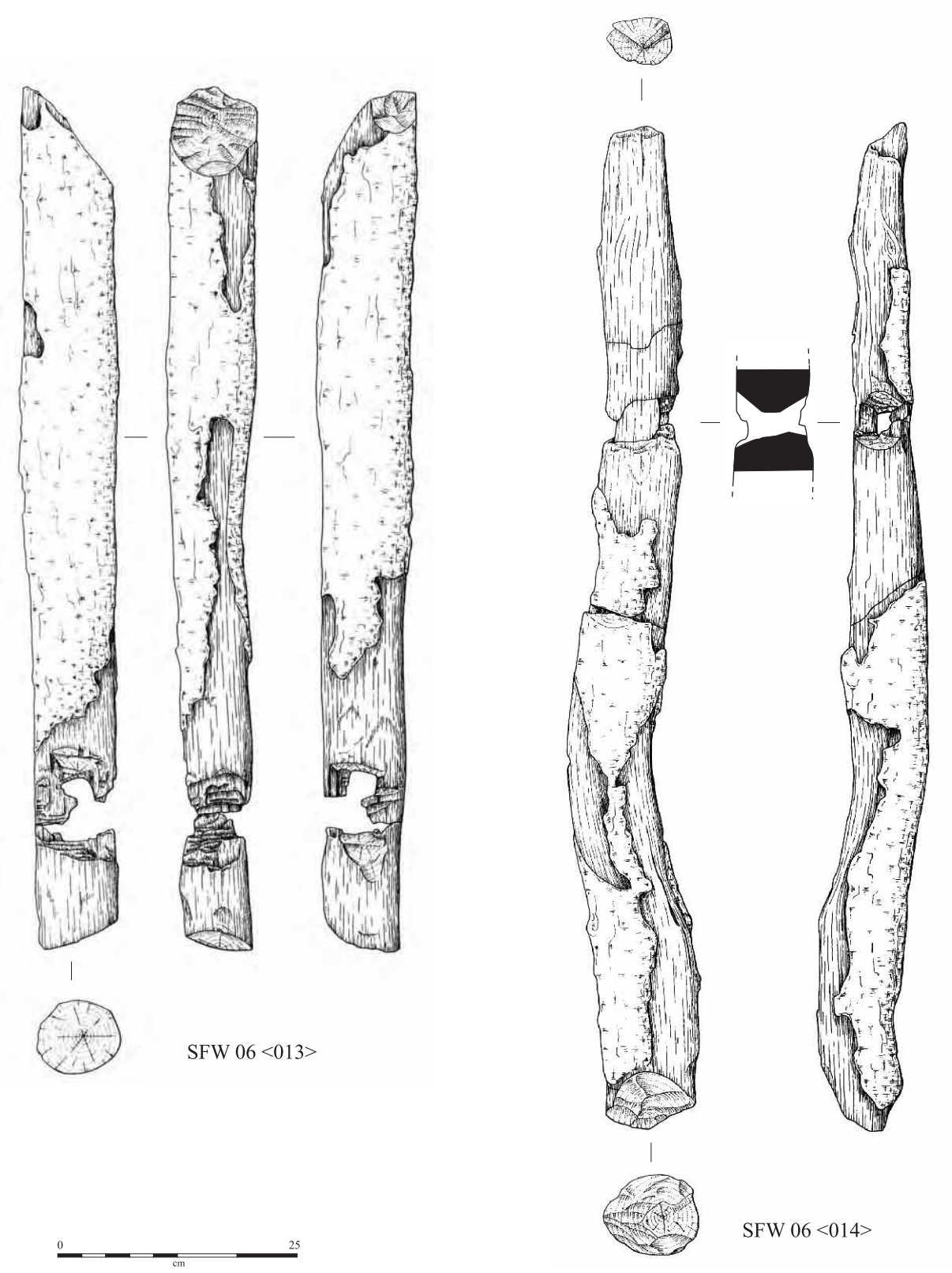


Figure 12.

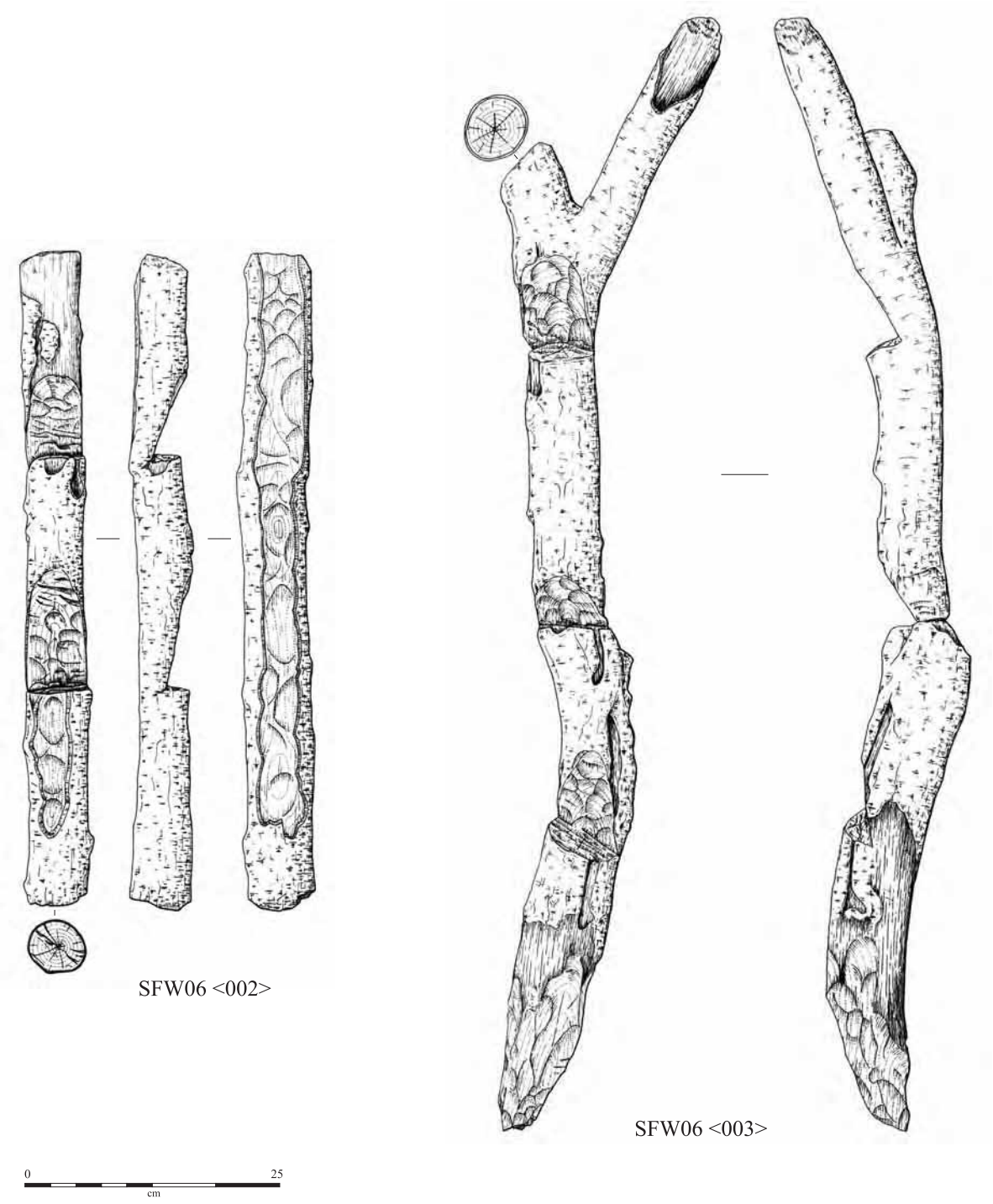
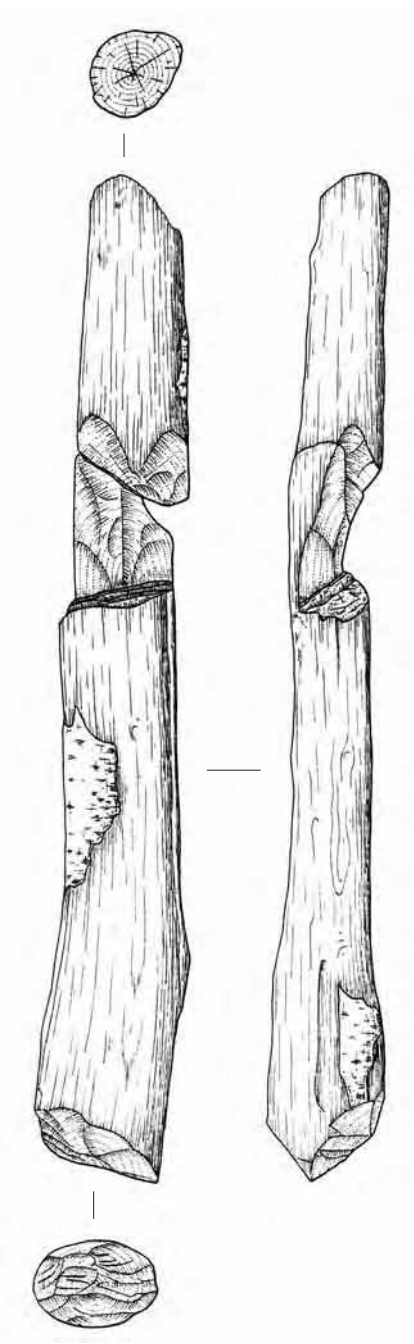


Figure 13.



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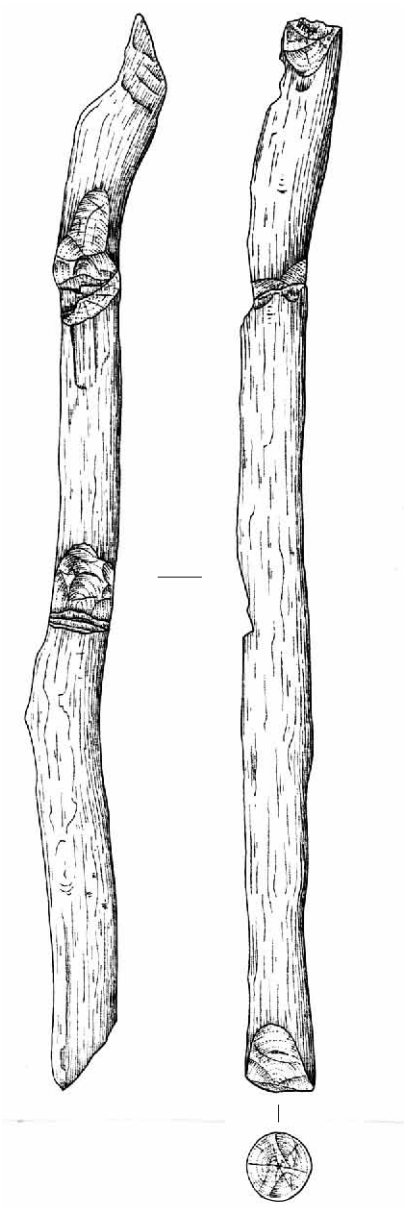

SFW06 <011>

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cm

Figure 14.

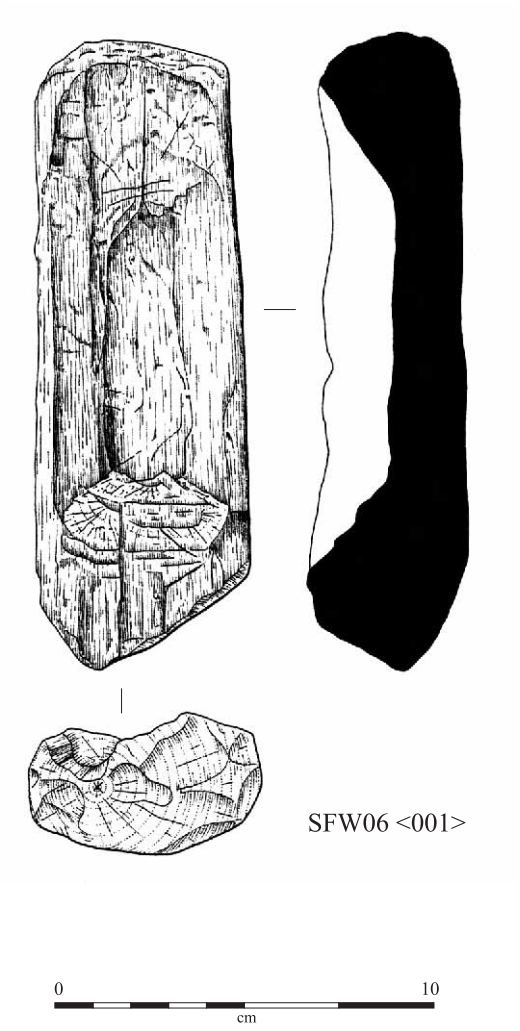

Figure 15.

Partly because of the quality of preservation there are a large number of toolmarks compared to the relatively small number of pieces of wood in the assemblage. More than a quarter of the material had measureable toolmarks (8 pieces). To this can be added 17 toolmarks recorded on wood from SFW05, a total of 25 toolmarks derived from a relatively small assemblage which included partial socketed axe hafts and an unfinished one although no actual axe heads.

Toolmarks can be measured on the rough-out for a trough, and the log ladders as well as <007>, which is roundwood. There are toolmarks on four other pieces of worked roundwood and on a felled tree.

The catalogue needs to be added to the assemblage from SFW05 and a proportion of the material sampled for species identification.

Catalogue

<001> Artefact?, rough-out for small trough, partially charred L.300 x 90 x 50mm
<002> Roundwood, log ladder, broken on 3rd step L.1030 D.45mm
<003> Roundwood, log ladder, 3 steps L.1620+ D.115/120mm
<005> Timber debris, radial split, tapering L.915+ x 65 x 45mm
<006> Roundwood, fork, trimmed 1 end/2 directions L.1420+ D 125mm
<007> Roundwood, possibly coppice, trimmed 1 end/1 diection L.200+ D.54/55mm
Woodchip, tangential L.98 x 32 x 29mm
Roundwood, possible coppice L.270 D.65/76mm
Roundwood, trimmed 1 end.all directions L.410+ D.66mm
Bark L.120 x 30 x 15mm
<008> Roundwood, slightly charred L.268+ D.43/78mm
<009> Timber debris, tangential split and light hewing L.395+ x 45 x 16mm
<010> Roundwood, possible log ladder L.1110+ D 120/160mm
<011> Roundwood, trimed 2 ends/1 direction, poss log ladder L.1210 D.69/71mm
<012> Bark L.340 x 140 x 3mm
<013> Roundwood, trimme 1 end/2 directions L.1410+ D.160mm
<014> Roundwood, trimmed 1 end/2 directions L.1710+ D.170/190mm
<017> Debris, tangential, hacked about L.225+ x 85 x 28mm
<016> Roundwood, 1 end/2 directions L.390 D.22/36mm
<021> Mis-shapen piece
<022> Roundwood, trimmed 1 end/all directions L.75 D.25/33mm
<024> Roundwood, compresed and heavily chopped L.170 D.52/25mm
Roundwood, trimmed 1 end/all directions L.420 D.44mm
<025> Roundwood, trime 1 end/1 direction L.730+ D.84/98mm
<026> Crushed fragments roundwood
<027> Crushed fragments roundwood

Roundwood:
E Roundwood, trimed 1 end/1 direction; 1 end/3 directons L.1505 D 40/44mm
I Roundwood, fork, prongs trimmed 1 direction L.280+ D.38/40mm
Z Roundwood, trimmed 2 ends/flat L.1065 D.95/120mm
AT Roundwood, trimmed 1 end/all directions L.270+ D.43mm

Burnt and Worked stone (Simon Timberlake)

Worked Stone

<372> [1208] F.504 A well-used hand-held hammer stone fashioned from a sub-spherical cobble of fine-grained ortho-quartzite (approx. 70 mm in diameter). The selected stone was probably an ex-Bunter (Trias) cobble eroded from the Bunter Pebble Bed (Midlands source?), transported glacially, then re-deposited within local Boulder Clay . A number of nice facets suggest its use also for grinding,

perhaps as a rubbing stone in conjunction with a saddle quern. The 'corners' of the cobble were used for pounding and crushing, whilst the facets (some up to 5 cm long and round) were worked along the edges between the 'flattish' faces, or else as patches within the centre of each.

<317> [1256] F.504 East quadrant. A saddle-quern consisting of a basal quern (in two pieces) and a probable upper grinding or rubbing stone.

The basal quern is now broken, but placed together the dimensions are 320mm x 200 mm x 90 mm deep. This has been fashioned from a boulder of fine grained ortho-quartzitic sandstone, perhaps originally part of a sarsen stone (Tertiary: Lower Eocene) which may have been collected from the local glacial drift (Boulder Clay). The source of this erratic was probably the south-east of England (Chilterns, Hertfordshire or Kent). An alternative source for stones possessing a rather similar texture and lithology (visible by eye) could have been one of the Upper Carboniferous pale ganister sandstones with their origin in the Coal Measures. These are also found within the local glacial drift, and may have a Northern or Central English Pennine origin. The convex outer and lower surface of the boulder was used for anchoring the quern in the soil, the upper surface having been worn completely smooth over the whole area of the quern. Typically this surface is slightly concave.

The smaller, thinner, flat upper rubbing stone (190 mm x 150 mm x 50 mm deep) fits well on the quern surface, having been extensively ground to shape through use. The granite from which it was made is a denser and heavier rock than the sandstone, as well as being coarser grained, and probably also harder and more abrasive. Not only would this have proved effective in re-juvenating the grinding surface of the quern, but together these would provide an efficient combination for the grinding of grain. The hand-held rubbing stone had been fashioned from a pink orthoclase-plagioclase-muscovite-biotite granodiorite; once again probably an opportunistic find, collected as an erratic from the glacial drift. A possible northern original source for a granite of this type might be Shap in Westmoreland (the most likely option), although Leicestershire is another possibility. A much fuller mineralogical thin-section analysis would be required in order to precisely determine lithology, and hence help to provenance this far-flung glacial erratic to its geological (British) source.

The interpretation of this worked stone assemblage as commonplace settlement domestic items fits well with the overall picture of this being Late Bronze Age well associated with a small-scale agricultural settlement. Both the sarsen saddle quern and the granite upper rubber or grinding stone appear to have been made as a pair and used together, and both were found together within the middle of the well fill beneath the midden layer [1208]. Their close association might suggest that this was a placed deposit, perhaps symbolic of the closure or abandonment of the well. The good condition of the quern (the break appears to be post-depositional or even modern) and the rubber does not suggest a discarded item, the latter being commonest archaeological context for quern stones found during the Roman period.

A glacial origin for the rocks subsequently fashioned into a saddle quern and rubber, and perhaps also a hammer stone, seems most likely. These boulders may have been sourced locally from the very same deposits exploited for use as the burnt stone. However, the procurement of a large sarsen as well as a granite slab suggests a high degree of selection, both on account of the ideal grinding properties that this combination or match of stones would engender, and also the difficulties in finding erratic stone of the right shape and quality.

Burnt Stone

The burnt stone assemblage from midden deposits preserved within the top of this Late Bronze Age well (F.504) needs to be looked at in conjunction with the burnt flint

which has been examined and described separately McLaren, above). Both categories of material probably reflect the same activity, namely the small-scale collection and burning of stone for possible use in cooking. The method of doing this and its association with water perhaps shows certain similarities to the burnt stone mounds of the earlier Bronze Age, although the use of stones as discrete pot-boilers rather than en masse associated with a cooking pit and feasting activities cannot altogether be discounted. From the dark artefact-rich or midden layer [1208] found capping the well, some 31.64 kg of burnt stone (914 pieces) was recovered, compared to only 11.02 kg of burnt flint. Considering the much higher proportion of flint to exotic erratic stone present within the nearby river terrace gravel and boulder clay outcrops, the evidence here for the disproportionate use of exotic erratic rock types compared to burnt flint cobbles for cooking or for some other domestic function is interesting and deserves discussion.

The probable sources of these stones, either way, are liable to have been found close to hand. The 1:50,000 geological map Sheet 187 for Huntingdon (BGS 1993) indicates the presence of a NNW-SSE palaeo-channel cutting the near-surface outcrop of Upper Jurassic Ampthill Clay in between Longstanton St.Michael and Over. This lies parallel to the farm track at Striplands Farm, the edge of which coincides with the site itself (NGR 539330 267900). The channel fill contains gravel (mostly flint) of the 3rd River Terrace, much of which would have been derived directly from the glacial Boulder Clay overlying the chalk which forms the higher ground to the south in between Madingley, Dry Drayton and Lolworth. The considerable area of glacial Boulder Clay till forming this catchment area will include amongst it a small percentage of exotic erratic rock types brought by the Anglian ice sheets from as far afield as Northern England, Scotland and even Scandinavia, yet for the most part will be dominated by chalk pebbles, abundant flint, and local Jurassic limestone rock types including septaria (derived from the local Upper Jurassic clays), and probably also abundant examples of the local Elsworth Rock. Another probable constituent would be the clasts of hard ferruginous cemented 'carstone' eroded out of the Lower Greensand outcrop, the latter forming the break of slope (between *c.*15m – 30m OD) just to the south of Longstanton. Pebbles of this carstone are found within the burnt stone assemblage, although interestingly, there are no examples of local Upper Jurassic septaria or Elsworth Rock limestone.

Less than a kilometre to the north-west of Striplands Farm, and just north of the disused railway line, outcrops of Glacial Gravel overlie Boulder Clay just to the south of Cold Harbour Farm and the village of Over (BGS 1993). The Glacial Gravel bed is distinctive in the Cambridge region for its high proportion of erratic stones. Geological descriptions of the assemblage of exotic erratic rock types found within other outcrops to the west of here in Cambridgeshire (Worssam *et al*. 1969), suggests that these local beds could be a possible source of the stone deposited in feature F.504. From a geological locality near Newmarket, a rather similar mixture of erratics ranging from small cobble to boulders were identified; amongst these various Coal Measures sandstones, Carboniferous Limestone, quartz porphyry, dolerite and basalt, some of the latter recognisably of Scottish or Scandinavian origin. Whilst the Glacial Gravel is a promising source, without a proper mapped assessment of the immediate area we cannot be certain just how close this selection of particular cobbles reflects proportion or actual availability. However, it seems unlikely that what we are witnessing is simply a random collection.

Comparing this assemblage to some of the Early Bronze Age burnt mounds (in effect burnt flint mounds) examined along the edges of the fenland basin in Cambridgeshire and Norfolk (Beadsmoore 2005), most of which seem to have utilised the most abundant stone to hand with little sign of selection or discrimination, the motivation for choosing stone at this site appears a little unusual. Although some of the abundantly available flint available has been collected, it appears there has been some positive selection of the heavier and more rounded pebbles of fine-coarse grained cemented or crystalline rocks. In addition to some local 'carstone' pebbles, this includes a very large number of well-travelled erratic rocks. The most frequently occurring rock types includes a variety of well indurated Carboniferous grits, quartzitic sandstones (including Upper Carboniferous Coal Measures ganister rocks) and crystalline limestones, Palaeozoic quartzites, fractured pebbles derived from the Trias Bunter Pebble Beds of the Midlands (mostly of geologically older rocks – both quartzites, igneous rocks and volcanics), Lower Palaeozoic limestones, sandstones, volcanic tuffs and lavas from the Welsh Borders

and the Lake District, plus the occasional gneisses, schists and igneous rocks from Scotland and Scandinavia. It seems possible that amongst these more competent rocks were a number of desirable properties, particularly amongst the quartzites and crystalline igneous rocks, which may have been noticed with respect to their use in cooking and in boiling water; the ability of certain cobbles to retain their heat for longer, to release their heat more slowly, and to undergo less explosive fragmentation than the flint or slaty rocks in response both to heat and to chilling in water. There have been few studies carried out on the lithological make-up of mixed burnt stone mound assemblages. Crowson (2004) refers to the calcination of flint and its use in heating water and producing steam at sites of burnt flint mounds, yet there seems to be little archaeological data on the use of other types of burnt stone within East Anglia. Some work, both archaeological and experimental, has been carried out on burnt stone mounds in West Wales. Results suggest that certain igneous rock types such as dolerites might preferentially have been selected in the course of collecting cobbles from nearby glacial tills. A certain size or type of pebble might also have been sought in order to undertake small-scale cooking activity, such as that associated with heating food in pots or boiling small amounts of water. Such scenarios perhaps are more likely in the context of Late Bronze Age settlement, by which time the phenomenon of the 'burnt stone mound' has been largely, although not wholly superceded.

<338> [1265] F.504 x4 pieces of fire cracked stone (calcined) from probable glacial erratic source: rhyolites (acid igneous volcanics) and possible Bunter Trias quartzite pebbles.

<347> [1265] F.504 x10 pieces of fire cracked (calcined) glacial erratic pebbles of at least 9 different rock types and probable original sources: includes Upper Carboniferous quartzitic sandstones (probably from Coal Measures, including a dark micaceous ganister and a pale orthoquartzitic sandstone with fossil rootlets) from a Pennine source, two fragments of Lower Carboniferous grey chert, a dark rhyolite, a cracked pebble of quartz porphyry, volcanic (rhyolitic) tuff, plus a single piece of soft red sandstone (the latter may be burnt 'carstone' or Lower Greensand from the Downham Market/ King's Lynn area).

<224> [1208] F.504 x9 pieces of fire cracked (calcined) glacial erratic pebbles of at least 6 different rock types and probable original sources: includes rhyolitic tuff, quartzites, micaceous sandstone, chert and x2 pieces of flint.

<193> [1208] F.504 x40 pieces of fire cracked (calcined) glacial erratic pebbles of more than 12 different rock types: includes Lower Carboniferous Limestone, Lower Carboniferous cherts, Upper Carboniferous Millstone Grit and Coal Measures micaceous ganister sandstones, Devonian ORS sandstones, rhyolites and tuffs, quartz porphyry etc., all from more distant English or possibly Scottish sources. Also some examples of more local limestone from septaria derived from the Upper Jurassic clays, Lower Greensand ('carstone') plus just a few pieces of fired flint.

<177> [1208] F.504 x42 pieces of fire cracked (calcined) glacial erratic pebbles of more than 8 different rock types: includes Lower Carboniferous cherts, Upper Carboniferous Millstone Grit and Coal Measures micaceous ganister sandstones, Devonian ORS sandstones, rhyolites and tuffs, quartz porphyry, microdiorite or dolerite, metaquartzites and vein quartz all from more distant English or possibly Scottish sources. Also some examples of more local limestone from broken septaria derived from the Upper Jurassic clays, Lower Greensand ('carstone') plus just a few pieces of fired flint.

<205> [1208] F.504 top 20 cm x9 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum of three different rock types, some of them fragments of the same cracked cobbles: includes Upper Carboniferous Millstone Grit and/or Coal Measures micaceous flaggy ganister sandstones, rhyolites and tuffs and/or spilitic rocks, and quartz porphyry, possibly from a variety of English (Pennine) or possibly Scottish sources.

<356> [1280] F.504 x3 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum 3 different rock types: includes one fine grained pale quartzite pebble, a micaceous quartzitic sandstone (Upper Carboniferous Coal Measures?), and a soft carbonaceous sandstone.

<307> [1255] F.504 N.Quadrant x3 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum 3 different rock types: part of a fractured quartzite pebble (ex Bunter, Trias?), a pale white ganister sandstone (Upper Carboniferous), and a soft sandstone pebble.

<321> [1259] F.517 x8 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum 8 different rock types: includes large pebble of Carboniferous or Devonian quartzitic sandstone, Upper Carboniferous sandstone/grit, volcanic (andesitic) tuff, quartzite , flint etc.

<301> [1253] F.517 x9 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum 8 different rock types: includes a probable local Mesozoic sandstone (a heavily burnt Lower Greensand or 'carstone), ex-Bunter (?) quartzite and sandstone clasts, Carboniferous Limestone etc.

<023> [1208] F.504 x57 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum of 20 different rock types: Lower Carboniferous cherts, Millstone Grit and Upper Carboniferous Coal Measures sandstone (incl. fossil plant root imprints), fragments of ex-Bunter/ORS clasts of Palaeozoic quartzite, quartz-mica schist, gneiss (from Scotland or Scandinavia), Carboniferous Limestone, rhyolitic tuff, pumice tuff, decalcified basic volcanic tuff, andesitic tuff, granodiorite, diorite or dolerite, local 'carstone', and chert or flint.

<029> [1208] F.504 N quadrant. x 68pieces of fire cracked (calcined) glacial erratic pebbles from a minimum of 20 different rock types: includes fragments of ex-Bunter/ORS clasts of Palaeozoic quartzite, Upper Carboniferous Coal Measures (ganister) sandstone, Millstone Grit (micaceous flags and arkosic grits), possible ORS pebbles, chert, rhyolitic tuff, pumice tuff, andesitic tuff, dolerite or diorite, quartz porphyry, limestone, local 'carstone', chert and grey flint fragments.

<035> [1208] F.504 Sq.A. x 86 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum of 30 different rock types: Lower Carboniferous cherts, Millstone Grit and Upper Carboniferous (Coal Measures) sandstone, up to 10 ex-Bunter/ORS clasts of Palaeozoic quartzite, quartz-mica schist, Carboniferous Limestone, a Mesozoic (Jurassic) fossiliferous limestone, rhyolitic tuff, pumice tuff, decalcified basic volcanic tuff, andesitic tuff, x10 fragments of broken up flint or chert etc.

<042> [1208] F.504 N.Quad. Sq.B. x18 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum of 15 different rock types: includes Upper Carboniferous (Coal Measures) sandstone, ex-Bunter/ORS clasts of Palaeozoic quartzite, Carboniferous Limestone, rhyolitic tuff, and a decalcified basic volcanic tuff.

<051> [1208] F.504 Sq.C 0-10 cm depth. x44 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum of 10different rock types: including Upper Carboniferous micaceous sandstone and grit, ex-Bunter or ORS clasts of Palaeozoic sandstones and quartzite, lumps of limestone including Carboniferous Limestone, vein quartz, a probable andesitic tuff, basic volcanic tuff, and x22 fragments of broken up flint or chert, also half a fire-cracked flint core with striking platform.

<054> [1208] F.504 Sq.C 10-20 cm depth. x25 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum of 20 different rock types: includes fragments of ex-Bunter/ORS clasts of Palaeozoic quartzite, Upper Carboniferous sandstones, chert, rhyolitic tuff, pumice tuff, andesitic tuff and de-calcified tuff, hornfels, and eight fragments of fractured flint or chert,

<066> [1208] F.504 Sq.D lower fill. x37 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum of 15 different rock types: includes a pebble of jasper/chert (amygdaloidal from basaltic lava?), Lower Carboniferous cherts, Millstone Grit and Upper Carboniferous (Coal Measures) sandstone, ex-Bunter/ORS clasts of Palaeozoic quartzite, Carboniferous Limestone, rhyolitic tuff, possible dolerite or diorite, and x18 fragments of broken and heavily burnt lenticular flint or chert. Rarely also, one broken pebble of unburnt fresh black flint.

<060> [1208] F.504 Sq.D. x 43 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum of 20 different rock types: Lower Carboniferous cherts, limestone, Millstone Grit and Upper Carboniferous Coal Measures sandstone, fragments of ex-Bunter/ORS clasts of Palaeozoic quartzite, quartz-mica schist (from Scotland or Scandinavia), vein quartz, dolerite, andesitic tuff, rhyolitic tuff, ignimbritic tuff, possible 'carstone'pebbles, and flint or chert.

[1208] F.504 Sq F. containing x19 pieces of fire-cracked glacial erratic pebbles from at least nine different rock types: includes fragments of ex-Bunter/ ORS clasts of Palaeozoic quartzite and quartzitic

sandstone, probable Upper Carboniferous sandstones, including both Coal Measures sandstones and Millstone Grit type micaceous grits, a pebble of Lower Palaeozoic volcanic (rhyolitic?) tuff, and a Jurassic oolitic limestone.

<073> [1208] F.504 Sq.G. x38 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum of 16 different rock types: pebble of jasper/chert, Lower Carboniferous cherts, Millstone Grit and Upper Carboniferous (Coal Measures) sandstone, ex-Bunter/ORS clasts of Palaeozoic quartzite, Carboniferous Limestone, ignimbrite type rhyolitic tuff, possible andesite or andesitic tuff (Lake District origin?), calcined local? grey flint (incl.one with bryozoan fossil), and a possible heavily calcined broken flint hammerstone

<282> [1215] F.507 Sq. G x4 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum 4 different rock types: a possible Precambrian metaquartzite or gneiss, a quartzitic sandstone, rhyolitic (ignimbritic) tuff, and possible spilitic lava. Probably all from a variety of English or Scottish sources. No local rock types.

<84> [1208] F.504 Sq.H. x20 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum of 12 different rock types: including Upper Carboniferous micaceous sandstone and grit, a Devonian ORS (?) clast of quartz grit, ex Bunter or ORS clast of Palaeozoic quartzite, limestone, volcanic tuff, Lower Carboniferous chert and possible local flint.

<090> [1208] F.504 Sq.I. x13 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum of 8 different rock types: fragment of rounded cobble of pink quartz porphyry (Lake District or?), rhyolitic tuff, Upper Carboniferous sandstone, clasts of Palaeozoic sandstone and quartzite (ex-Bunter or ORS), Lower Carboniferous chert, Lower Palaeozoic grit pebble, and a Mesozoic (Jurassic) fossiliferous sandstone with serpulids and bivalve.

<96> [1208] F.504 Sq.I x11 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum of 8 different rock types: Upper Carboniferous sandstone/grit (incl. Coal Measures and Millstone Grit), Palaeozoic quartzite clasts, Lower Carboniferous chert, and flint etc.

<109> [1208] F.504 Sq.L. x30 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum 16 different rock types: includes possible Lower Palaeozoic- Precambrian metaquartzite, rhyolites and other Palaeozoic volcanics including tuffs, probable Carboniferous sandstones, cherts, and possibly a small amount of local burnt flint.

<103> [1208] F.504 Sq.K. x5 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum 5 different rock types: includes large fragment of a probable Old Red Sandstone (Devonian) cobble, a clast of a Lower Palaeozoic/Precambrian quartzite (possibly ex-Bunter), a complete pebble of Upper Carboniferous sandstone, and a waterworn pebble of a probable Carboniferous Limestone.

<116> [1208] F.504 Sq.M x2 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum 2 different rock types: one a thin slab of probable andesitic lava (not a pebble), the other a silicified sandstone pebble.

<122> [1208] F.505 Sq. N x15 pieces of fire cracked (calcined) glacial erratic pebbles of at least7different types of sandstone / quartzitic sandstone. This includes examples of Upper Carboniferous Millstone Grit and micaceous flaggy sandstones, possible Coal Measures ganister, and perhaps even broken fragments of a Devonian ORS cobble. None from an obviously local original source.

<135> [1208] F.504 Sq.O 0-10 cm depth x17 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum of 7different rock types: includes Lower Carboniferous Limestone grey cherts, Upper Carboniferous micaceous flaggy sandstones, rhyolites or tuffs, and a weathered and quite altered red quartz porphyry. Probably from a variety of English (Pennine) or possibly Scottish sources.

<129> [1208] F.504 Sq.O x8 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum of 7different rock types: including Lower Carboniferous Limestone grey cherts, Upper Carboniferous micaceous flaggy sandstones, a spherulitic rhyolite and a rhyolitic tuff or tuffs etc.

<147> [1208] F.504 Sq.O 20-30 cm depth x21 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum of 10 different rock types: includes one piece from a highly ferruginous cemented horizon with the Lower Greensand 'carstone' (local) now partly converted to hematite ochre in places due to firing, Lower Carboniferous chert, half a dozen fragments of burnt flint, rhyolitic tuff (?), and quartzite clasts (perhaps ex-Bunter or ORS).

<153> [1208] F.504 Sq.P 0-10 cm depth x12 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum 7 different rock types: including metaquartzites, Lower Carboniferous chert, and rhyolitic tuff? from a variety of English or Scottish sources.

<158> [1208] F.504 Sq.P 10-20 cm x11 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum 9 different rock types: includes Lower Carboniferous chert, possible Palaeozoic-Precambrian metaquartzite, rhyolites and tuffs, plus minor flint.

<164> [1208] F.504 Sq.P 20-30 cm depth x12 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum of 7different rock types: includes a dense basaltic or spilitic amygdaloidal lava, Lower Carboniferous Limestone grey cherts,Upper Carboniferous micaceous flaggy sandstones, rhyolites and tuffs, and other quartzitic sandstones from a variety of English (Pennine) or possibly Scottish sources.

<171> [1208] F.504 Sq.P: 30-40 cm depth x27 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum of three different rock types: includes Lower Carboniferous Limestone cherts (one with brachiopod fossil),Upper Carboniferous Millstone Grit and/or Coal Measures micaceous flaggy sandstones and ganister (with plant root fossils), rhyolites and tuffs, ignimbrite etc. from a variety of English (Pennine) or possibly Scottish sources.

<182> [1208] F.504 Sq.Q 10-20 cm depth. x21 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum 5 different rock types: includes dolerite, a basic volcanic pumice tuff, probable rhyolitic tuff, Lower Carboniferous chert (?), ex-Bunter Trias pebble clasts of quartzite, pebbles of Upper Carboniferous (Millstone Grit?) and Devonian ORS sandstone etc.

<147> [1208] F.504 Sq.Q 30-40 cm depth. x39 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum 30 different rock types: includes jasperized chert (possibly Precambrian), Lower Palaeozoic-Precambrian quartzite clasts, Lower Palaeozoic sandstone, Upper Carboniferous sandstone/grit, ORS sandstone clasts, dolerite, rhyolitic/andesitic volcanic tuff, ex-Bunter quartzite clasts, Lower Palaeozoic (Upper Ordovician) limestone (with brachiopod fossil), Lower Carboniferous cherts, local flint, Carboniferous Limestone etc.

<187> [1208] F.504 Sq.R x3 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum of 3 different rock types: includes a quartz-mica schist (possibly Scottish origin), a fosiliferous Palaeozoic limestone, and Lower Carboniferous chert.

<199> [1208] F.504 Sq.S 0-10 cm depth. x4 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum of 4 different rock types: includes Upper Carboniferous sandstone pebbles, possible local 'carstone', quartzite schist and chert

<312> [1255] F.504 Sq. S. x9 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum 7 different rock types: includes a large broken cobble of pink quartz porphyry (possibly Lake District origin), a far-travelled pebble of a metamorphosed migmatised granite (possibly Scottish or Scandinavian origin), some broken pebble clasts of Upper Carboniferous sandstones (Pennine), ex-Bunter pebble clasts, Carboniferous Limestone etc.

<211> [1208] F.504 Sq.S 20-30 cm depth. x11 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum 7 different rock types: includes disintegrated fragments of a granite, a possible Mesozoic (Jurassic) fossiliferous sandstone with bivalves and brachiopod moulds, a soft mottled pink sandstone, an ex-Bunter quartzite clast etc.

<216> [1208] F.504 Sq.T. 0-10 cm depth. x18 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum 6 different rock types: includes fragments of burnt chert and also possibly local flint,

a banded quartzite clast (ex-Bunter or ORS), some Palaeozoic (?) limestones, Upper Carboniferous sandstone, and a quartz-biotit-muscovite schist (Scottish or Scandinavian).

<230> [1208] F.504 Sq.V 15-30 cm depth. x6 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum 5 different rock types: part of a small pebble of a coarse shelly Lower Palaeozoic limestone broken to expose fossil trilobite pygidium and small cast of brachiopod *Ornithella* sp.(probably Upper Ordovician/ Lower Silurian and originating Welsh Borders area?), a fragment of quartzite sandstone pebble ex-Bunter (Trias), an Upper Carboniferous (?) micaceous flaggy sandstone, pebble fragments of Millstone Grit etc.

<236> [1208] F.504 Sq.V SAT 30 cm – Base. x5 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum of 8 different rock types: Upper Carboniferous micaceous sandstone/grit, Palaeozoic quartzitic sandstone, basic volcanic tuff

<249> [1208] F.504 Sq W 0-10. x3 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum of 3 different rock types: includes Upper Carboniferous sandstone pebbles and a possible Lower Palaeozoic quartzite.

<259> [1208] F.504 Sq. X x9 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum 3 different rock types: includes a fragment of metaquartzite pebble, micaceous and reddened sandstone (Upper Carboniferous), vein quartz and flint or chert.

<265> [1208] F.504 Sq.Y 0-10 cm x9 pieces of fire cracked (calcined) glacial erratic pebbles from a minimum 7 different rock types: includes a pale col. rhyolite/quartz porphyry, probable andesitic tuff, rhyolitic tuff and quartzites. No locally derived rocks.

In conclusion, pebbles or cobbles of non-locally derived glacial erratic rock types appear to have been preferentially collected over flint at Striplands Farm for use in 'burnt stone' type domestic activities, most probably cooking, the debris from which was deposited within the midden layer infilling the top of the abandoned Late Bronze Age well. The most likely source of this heterogenous assemblage of glacial erratic rocks is the outcrop of Glacial Gravel which lies south of Coldharbour Farm and Over, a matter of only hundreds of metres away from the centre of this Late Bronze Age settlement.

Burnt Clay (Rachel Causier)

In total, 398 pieces of non-ceramic fired or burnt clay material were recovered from the area of excavation with a total weight of 3860g (an average of 9.70g per piece). All material was examined and details of fabric and form, if possible, were recorded. This information is summarised in Table 8, following a brief summary of any identifiable pieces within the group and a description of the main fabric groups.

The assemblage ranged in size from 5mm to 110mm, the majority of fragments being toward to middle of this scale. Apart from 5 unidentifiable pieces from F.505, a pit, all the burnt clay fragments came from F.504, a large Bronze Age pit-well. Of these, several pieces can be definitely identified with others having some diagnostic features.

Seven definite and seven possible loom weight fragments were identified. Of these all but one, a loom weight from [1255], were recovered from context [1208]. In addition, there were five fragments with curved surfaces, although these were too fragmentary to be definitively identified.

80 fragments had flat surfaces, possibly indicating use as daub. Of these, 45 also appear to have a very thin surface (less than 2mm) of a light buff pink sandy fabric with occasional quartzite flecks which can be clearly distinguished from the fragment's main fabric. The presence of this surface on over half of the pieces suggests that this surface may be in some way related to the fragments' function.

Feature	Context	Box No.	Quadrant	Spit	No. of pieces	Weight (g)	Average Weight (g)	Fabric ( )= no. of pieces	Identification * (if any)
504	1208	A	-	-	9	45	5	1(9)	2 FF
504	1208	B	-	-	6	76	12.67	1(3), 2(3)	1 FF
504	1208	D	-	-	22	227	10.32	1(18), 2(4)	1 LW?
504	1208	D	-	lower	7	72	10.29	1(7)	3 FF(3)
504	1208	G	-	-	10	410	41	1(8), 3(1), 4(1)	2 FF(2)
504	1208	G	-	lower	14	161	11.5	1(10), 4(3)	1 FF(1)
504	1208	H	-	-	3	12	4	1(3)	-
504	1208	I	-	-	29	199	6.86	1(14), 2(15)	14 FF(7)
504	1208	I	-	lower	19	123	6.47	1(13), 6(6)	1 LW 1 LW? 2 FF
504	1208	K	South	-	8	84	10.5	5(8)	2 FF(2)
504	1208	L	-	-	19	165	8.68	1(8), 6(11)	1 CF
504	1208	M	-	-	15	17	1.13	5(15)	-
504	1208	N	-	-	2	8	4	1(2)	-
504	1208	O	-	-	18	118	6.56	1(6), 2(12)	13 FF(11)
504	1208	O	-	0-10cm	27	161	5.96	1(9), 2(18)	17 FF (16)
504	1208	O	-	20-30cm	3	21	7	4(3)	-
504	1208	O	-	30-40cm	19	215	11.32	1(19)	1 LW 1 LW? 2 FF
504	1208	P	-	10-20cm	3	22	7.33	1(1), 2(2)	1 CF 2 FF (1)
504	1208	P	-	20-30cm	1	18	18	1(1)	-
504	1208	P	-	30-40cm	3	25	8.33	1(3)	1 LW?
504	1208	Q	-	0-10cm	5	101	20.2	1(4), 2(1)	1 LW? 2 CF
504	1208	S	-	-	22	86	3.90	1(4), 5(18)	4 FF
504	1208	S	-	0-10cm	8	113	14.13	1(6), 2(2)	5 FF(1)
504	1208	S	-	top 20cm	9	29	3.22	1(9)	7 FF(3)
504	1208	S	-	20-30cm	1	29	29	3(1)	1 FF
504	1208	V	-	-	4	117	29.25	6(4)	1 LW 2 CF
504	1208	V	-	15-30cm	6	54	9	4(1), 6(5)	1 LW?-possibly part of above loom weight
504	1208	V	-	30-base	3	44	14.67	6(3)	1 LW?-possibly part of above loom weight
504	1208	W	-	-	1	1	1	5(1)	-
504	1208	X	-	-	2	15	7.5	5(2)	-
504	1208	Y	-	0-10cm	18	123	6.83	1(3), 2(15)	-
504	1208	-	-	-	7	182	26	1(7)	1 FF 1 LW
504	1208	-	-	north	6	160	26.7	1(7)	At least 2 LW in fragments
504	1255	-	-	-	9	610	67.78	2(9)	At least 1 LW in fragments
504	1265	-	-	south	1	3	3	2(1)	-
505	1210	-	-	-	10	14	1.4	5(10)	-

*Key for Identification (Number before initials indicates number of fragments within group):
LW= loom weight fragments
LW?= possible loom weight fragments
CF= fragments with curved faces but no other diagnostic features.
FF= fragments with one or more flat faces (in brackets number of these fragments with possible secondary surfaces).

Table 8: Burnt Clay

In terms of distribution the vast majority of the burnt clay came from towards the centre of the pit.

Fabric types

Within the group six principle fabric types were identified, although within these groups there was some level of variation.

Fabric 1: Hard mid to dark grey sandy fabric with mid green yellow and pink red mottling, moderately frequent quartzite grains and rare white grit inclusions.

Fabric 2: Hard banded mid buff pink and light green yellow fabric with moderate grit inclusions.

Fabric 3: Very hard mid red yellow to dark pink red very sandy fabric with frequent sand inclusions.

Fabric 4: Hard off white to buff pink silty fabric with rare grit inclusions.

Fabric 5: Hard green yellow to buff pink sandy fabric with occasional grit inclusions. This fabric is moderately similar to Fabric 2, but lacks the distinctive banding.

Fabric 6: Hard mid yellow grey to mid buff pink sandy fabric with frequent quartzite grains and moderately frequent small angular stones.

Faunal Remains (Chris Swaysland)

An assemblage numbering 4235 fragments and weighing 20,870g was recovered from a small open area excavation measuring 15m^2. A large proportion of the animal bones (2,386 fragments and 8147g) were recovered from one large, partially waterlogged well, F.504.

The animal bones were identified using the reference collection of the Cambridge Archaeological Unit. The assemblage was quantified using a modified version of the methodology of Davis (1992). In brief, all mandibular and maxillary teeth and a predetermined restricted suite of elements, predominantly the distal articulations, are counted (countable elements). Results are presented by NISP (Number of Identified Specimens). It can be difficult to distinguish between the bones of sheep and goat; certain elements however can be identified (Boessneck 1969; Halstead *et al* 2002). All caprine bones that could be confidently identified were sheep, therefore it will be assumed that all caprine bones are from sheep. Information on gnawing, butchery and pathology was recorded where present. Butchery was recorded by type (i.e. chop, knife cut, sawn), location and orientation. Pathological conditions were categorised where possible. The age at death of the major domestic animals was analysed using Halstead (1985) for cattle, Payne (1973) for sheep and Hambleton (1999) for pigs.

F.504 - Feature 504 was a large well measuring around 8.5 by 7.5m in and 2.8m deep. It was associated with a nearby LBA settlement. The bones in the upper layers of the pit were in poor condition and showed a high proportion of gnawing. In the lower levels of the pit the bones were preserved by waterlogging and were in a very good condition with little or no evidence of carnivore gnawing.

Species	NISP	%
Cattle	126	55.3
Sheep	57	25.0
Pig (wild and dom.)	35 (55)*	15.4
Horse	5	2.2
Red deer	5	2.2

Table 9: Relative species proportions *indicates total including partially articulate remains

The assemblage is dominated by cattle (55.3%), a range of meat and non-meat bearing elements are present though there is an overrepresentation of isolated teeth. Sheep represent 25% of the assemblage. Both meat and non-meat bearing bones were present and again teeth are over represented. Pig remains represent 15.4% of the assemblage. Both wild and domestic pigs were present; these can be difficult to distinguish when dealing with disarticulated and fragmentary remains. The articulated lower rear legs of a wild boar were recovered from context [1265]. The bones were in very good condition and were unusual in that there was no evidence of any attempt at removing the meat or cracking the bones for marrow extraction.

Five horse bones were present in the assemblage. Two red deer bones and three antler fragments were present. The bones were a metatarsal and the posterior section of skull. The skull showed multiple chop marks to the base of the antlers whence they had been removed. The brain cavity appears to have been broken open to remove the brain presumably for food purposes.

Shallow Linear Features - One identifiable element was recovered from F.510, probably dating to the Romano-British period. F. 510 contained a mandibular sheep tooth.

Undated Features - A small number of identifiable animal bones were recovered from F.503, F.505, F.508, F.510, F.517 and F.526. The high proportion of horse is explained by the presence of 10 maxillary teeth from pit F.505.

Species	NISP
Cattle	11
Horse	10
Pig	2
Sheep	2

Table 10: Species distribution

The well preserved animal bone remains from the lower levels of F.504 offer a valuable insight into the animal economy in the late Bronze Age. The assemblage would profit from further analysis using a more detailed methodology and could be usefully compared to assemblages from sites such as Runnymead (Serjeantson 1996) and Potterne (Locker 2000).

Environmental Samples (Anne de Vareilles)

A selection of five samples was examined, four of which are from the large 'well' F.504. The sample from F.517 was processed using an Ankara-type flotation machine. The flot was collected in a 300µm mesh, and the remaining heavy residue washed over a 1mm mesh. The flot was dried indoors and sorted for charred plant remains, molluscs and charcoal under a low power binocular microscope. The six waterlogged samples were processed in the Pitt-Rivers Laboratory, Department of Archaeology, University of Cambridge. Identifications were made using the reference collection of the Pitt-Rivers Laboratory. Floral nomenclature follows Stace (1997). All charred and waterlogged remains are listed in tables 11 and 12.

Preservation - Both preservation types (carbonised and waterlogged) are excellent; segments of fragile chaff survive from carbonised layers and delicate leaves from the well. The lower fill of pit F.517, which was cut into the 'well', was thought to be waterlogged and therefore processed as such. Its remains, however, are predominantly carbonised with no indication of it ever having been effectively under water.

Results

LBA/EIA 'Well' F.504 - Though conditions conducive to good waterlogged preservation were present in all but the very top capping layer, few seeds were found. Conversely, deciduous leaf fragments were abundant, and water-flea egg cases as well as other insect remains were common. Thorns and willow bracts occurred quite regularly. The seeds found fall into three broad categories: those that grow on disturbed soil (mostly damp), such as around settlements, paths, field margins, etc; those that grow in opened woodland or on re-colonised disturbed soil and hedges, such as sloe *(Prunus spinosa)*, hawthorn (*Crataegus* cf. *monogyna)* and dogwood (*Cornus sanguinea*); and those growing in or on the margins of water, such as crowfoot (*Ranunculus* Subgen, *BATRACHIUM)* and marsh stitchwort (*Stellaria palustris*).

The top capping layer (1208) was exceedingly rich in large to very small charcoal, but apart from one spelt wheat glume base (*Triticum spelta*), 12 spelt or emmer wheat glume bases (*T. spelta/dicoccum*) and five barley rachis segments (*Hordeum vulgare sensu lato*) no other plant remains were discovered.

Basal fill of deep LBA/EIA Pit F.517 (1259) - Only 500ml of the sample were processed because it was thought to be waterlogged. Nevertheless, large quantities of charcoal were observed as well as six wheat glume bases and one barley rachis segment.

The low quantities of seeds in the 'well' might be explained by its rate and nature of infilling; few seeds would have accumulated in layers that built up relatively quickly, through infilling and slumping. It certainly appears that the 'leaf layer' [1268] accumulated over one season. Another explanation is that the area immediately around the 'well' was kept clear of vegetation. Leaves and wind-dispersed seeds, such as the six species of the daisy family, could have blown in from further away. The water-flea eggs indicate that levels of water were low and stagnant. The low levels of charcoal found throughout the 'well' may have leached down from the top layer.

The area around the 'well' seems to have been damp, open woodland. Hazel *(Corylus avellana)*, elder *(Sambucus nigra)*, sloe and brambles offered a range of nuts and berries, and shrubs such as dogwood and hawthorn would have made useful firewood. The smaller ground-cover species show that some areas were more wood-like whilst others were more exposed. Willow(s) grew around, possibly even over, the 'well'.

By the time the well was full its function changed as is seen by the midden layer [1208] which accumulated on top. As well as bone scraps and broken pots, charcoal and cereal (barley, emmer and spelt) threshing waste were also dumped.

F.517 does not appear to have ever been waterlogged. The basal fill analysed contains a very similar assemblage to that of [1208], suggesting one of three possibilities: pit F.517 was cut through [1208], [1259] and [1208] built up contemporaneously, or F.517 was dug to be used in the same way.

The 'well' compares well with the other LBA/EIA large waterlogged pits analysed from SFW05 (F.71, F.210, F.370). Similarly few seeds were found in those features, though they contained more waste and rough ground species than F.504, perhaps indicating a greater impact of human disturbance. Large Bronze Age waterlogged pits kept intentionally clean of natural debris have been found at other sites around Peterborough, such as Rockwell (Ballantyne 2000) and Eye (Stevens and Ballantyne 1998).

Sample number		**<159>**	**<158>**	**<152>**	**<150>**	**<151>**
Context		[1278]	[1271]	[1265]	[1208]	[1259]
Feature		504 – Large Well				517
Feature type		Bottom fill	Middle fill	Top fill	Capping layer	Pit (cuts well)
Phase/Date		Late Bronze Age / Early Iron Age				
Sample volume – litres		500	500	500	12000	500
Flot fraction examined		½	1/1	½	1/1	1/1
Cereal Chaff						
H. vulgare sl. rachis segment	Barley rachis segment				5	1
Triticum spelta glume base	Spelt wheat glume base				1	3
T. spelta/dicoccum g. Base	Spelt or Emmer g. base				10	3
T. spelta/dicoccum spikelet fork	Spelt or Emmer spikelet fork				1	
Wild Plants						
Corylus avellana	Hazel nut shell frags.					1
Parenchyma fragments	Undifferentiated plant storage tissue		-			
Charcoal >4mm			-	+	*	++
2-4mm		-	+	++	a	*
<2mm		++	++	+++	a	a

Key: '-' 1 or 2, '+' <10, '++' 10-25, '+++' 25-50, '*' 50-100, 'a' >100 items.

Table 11: Charred Plant Macro Remains from SFW.06

Sample number		**<159>**	**<158>**	**<152>**	**<150>**	**<151>**
Context		[1278]	[1271]	[1265]	[1208]	[1259]
Feature		504 – Large Well				517
Feature type		Bottom fill	Middle fill	Top fill	Capping layer	Pit (cuts well)
Phase/Date		Late Bronze Age / Early Iron Age				
Volume – millilitres		500	500	500	12000	500
Flot fraction examined		½	1/1	½	1/1	1/1
Ranunculus acris/ repens/ bulbosus	Large seeded Buttercup					
R. Subgen. *BATRACHIUM*	Crowfoot	+	+	+		-
Ranunculus sp.	Buttercup					
Urtica dioica	Common Nettle	++	*	+		-
Corylus avellana	Hazel nut shell frags.	-	+			
Chenopodium cf. *album*	Fat-hen	a	-			
Chenopodium sp.	Goosefoots	+++	+	-	-	+
Atriplex patula/prostrata	Oraches	-				
Stellaria media	Common Chickweed	++	+			
S. neglecta	Greater Chickweed			+		
S. palustris	Marsh Stitchwort		-	-		
Persicaria hydropiper	Water-Pepper		-	-		
Polygonum aviculare	Knotgrass	+	+			
Polygonum sp.	Knotgrasses	-				-
Rumex conglomeratus/ obtusifolius/ sanguineus	Small seeded Dock	-	+			
Brassica / Sinapis seed coat	Cabbages / Mustards		-			
Rubus sp.	Bramble	+	+	++		
Prunus spinosa	Sloe stone		-	-		
Crataegus cf. *monogyna*	Hawthorn	++	+	++		
Cornus sanguinea	Dogwood			-		
Apiaceae	Carrot Family seed	-	-			
Solanum nigrum	Black Nightshade	+	-	-		
Lithospermum arvense	Field Gromwell			-		
Ballota nigra	Black horehound	-	-	-		
Lamium purpureum/ amplexicaule	Red/Henbit DeadNettle	-				
Prunella vulgaris	Selfheal		-	+		
Lycopus europeus	Gypsywort			-		
Mentha sp.	Mint	-				
Plantago major	Greater Plaintain	-	-			
Sambucus nigra	Elder	+	-	+		
cf. *Arctium* sp.	Burdocks			-		
Carduus/Cirsium	Thistles		+	-		
Lapsana communis	Nipplewort			-		
Sonchus oleraceus	Smooth Sow-thistle	-	-	-		
Crepis sp.	Hawk's-beards	-				
Lemna sp.	Duckweeds	-	+	-		
Carex sp. Type 1	Sedge (flat seed)	-	-			
Carex sp. Type 2	Sedge (flat seed)			-		
Indet wild plant seeds		1	2			
Leaf (deciduous) fragments		a	*	*		
Salix sp. bracts	Willow bracts	+	++	-		
Indeterminate buds		++	+	+		
Daphnia egg cases	Water flea egg cases	*	+++	++		
Entomological remains		a	+++	+		

Key: '-' 1 or 2, '+' <10, '++' 10-25, '+++' 25-50, '*' 50-100, 'a' >100 items

Table 12: Waterlogged Plant Remains from SFW.06

Pollen Analysis (Steve Boreham)

This report presents the results of pollen analyses from 12 samples of sediment taken from F.526 at Longstanton (SFW06), Cambridgeshire.

Feature F.526 was sampled using four monoliths (Tins 1-4), which recovered the full infill sequence (contexts 1278, 1271, 1270, 1274 and 1265). Tin 4 comprised a basal sand becoming organic chocolate brown mud and grey/brown sandy silt (0-40cm) (context 1278), from which pollen samples were taken at 5cm, 18cm & 35cm. This was overlain by a chocolate brown silt (40-50cm) (context 1271), from which a pollen sample was taken at 45cm. Tin 3 comprised a basal dark grey organic silty clay (0-11cm) (context 1270), from which a pollen sample was taken at 10cm. This was overlain by a grey silty clay (11-30cm) (context 1274), from which a pollen sample was taken at 27cm. Tin 2 overlapped with the top 10cm of Tin 3, and covered the interval 20-70cm in this section. The basal part of the sequence (20-50cm) was the grey silty clay of context 1274, and was sampled for pollen at 42cm & 50cm. Above this context, 1265 (50-70cm) comprised grey/brown silty clay with wood, and was sampled for pollen at 62.5cm. Tin 1 overlapped with the top 10cm of Tin 2, and covered the interval 70-110cm in this section. This monolith was entirely composed of the grey/brown silty clay of context 1265, and was sampled for pollen at 75cm, 82cm & 104cm.

The 12 samples were prepared using the standard hydrofluoric acid technique, and counted for pollen using a high-power stereo microscope. The percentage pollen data from these 12 samples is presented in Figure 16.

Pollen concentrations varied widely between 13,052 and 94,687 grains per ml. Pollen counting was somewhat hampered by the presence of finely divided organic debris, and preservation of the fossil pollen grains (palynomorphs) was rather variable. Counts from single slides did not reach main sums of 100 grains for most samples, and obviously the statistically desirable total of 300 pollen grains was not achieved. Therefore care should be taken in the interpretation of these pollen assessment results.

Feature 526 (Tin 4)

The basal sample from 5cm produced a pollen signal dominated by grass (Poaceae) (32.6%), with hazel (*Corylus*) (14.1%) and a range of herbs including strapwort plantain (*Plantago lanceolata*) (8.7%). Arboreal taxa are represented by birch (*Betula*), oak (*Quercus*), alder (Alnus), willow (*Salix*) and ivy (*Hedera*). Cereal pollen was present in this sample (1.1%). The sample from 18cm was also dominated by grass (18.8%), with willow (12.5%), hazel (10.4%) and a similar range of herbs, trees and shrubs, again including strapwort plantain (8.3%). Fern spores (Pteropsida) attained 8.3%, and pollen of the emergent aquatic bur-reed (*Sparganium*) reached 5.9%. Above this, the sample from 35cm was dominated by grass (46.3%), again with willow (7.4%) and hazel (5.6%). Herbs included the fat hen family (Chenopodiaceae) and strapwort plantain (both reaching 5.6%). The final sample (45cm) from Tin 4 was also dominated by grass (39.4%), with willow and alder (*Alnus*) (both 12.1%), and herbs including the buttercup family (*Ranunculus*) (9.1%) and dock (*Rumex*) (6.1%). Fern spores (9.1% and bur-reed pollen (5.7%) were also significant in this sample.

This data is also shown graphically in a percentage pollen diagram (Figure 16). This suggests a trend up the sequence with declining hazel and strapwort plantain, and increasing grass.

Feature 526 (Tins 1-3)

The basal sample from 10cm was dominated by grass (33.1%), with hazel (*Corylus*) (19.6%) and a range of herbs including strapwort plantain (6.8%). Arboreal taxa included birch, pine, willow and ivy. Fern spores were present at 8.3%. The sample from 27cm was co-dominated by grass (24.7%) and hazel (22.1%), with range of herbs including the buttercup family (7.8%). Oak pollen reached 3.9% and fern spores attained 9.1% in this sample. This sample contained Cereal pollen at 1.3%. Above this, the sample from 42cm was dominated by grass (27.4%), with hazel (9.5%) and a range of herbs including strapwort plantain and the buttercup family (both at 6%). Arboreal taxa included oak (6%), birch, alder, willow, ivy and juniper (*Juniperus*). Fern spores attained 11.9%, and pollen of bur-reed

(*Sparganium*) reached 6.7%. The sample from 50cm was dominated by grass (23.2%), with fern spores (16.1%) and a range of herbs including strapwort plantain and the buttercup family (both at 7.1%). Arboreal taxa included oak (7.1%), alder (7.1%), hazel, willow and ivy.

The sample from 62.5cm was dominated by grass (32.8%), with herbs including the fat hen family (8.2%) and strapwort plantain (6.6%). Arboreal taxa included willow (6.6%), alder and hazel. Fern spores reached 9.8%. Above this, the sample at 75cm was dominated by grass (20%), with fern spores (14.7%), hazel (12%), alder (8%), and a range of herbs including strapwort plantain (5.3%). This sample also contained Cereal pollen at 1.6%. In contrast, the sample at 82cm was dominated by fern spores (23.8%), with hazel (14.3%), grass (9.5%), and a range of herbs including the lettuce (Asteraceae (Lactuceae)) and fat hen families (both at 9.5%). The upper sample from this sequence (104cm) was again dominated by fern spores (27.6%). Hazel (15.5%) and grass (13.8%) were relatively abundant, together with herbs including strapwort plantain (6.9%). Arboreal taxa included willow (8.6%), oak (6.9%), alder and ivy.

Data from this sequence is also shown graphically in a percentage pollen diagram (Figure 16). Grass appears to decline towards the top of the sequence, while alder and willow pollen, and fern spores increase. There is a notable fluctuation in the percentage of arboreal taxa (oak, alder and hazel) in the centre of the sequence. The proportion of strapwort plantain pollen appears to remain quite constant throughout. The elevated proportions of fern spores and resistant Asteraceae pollen may suggest that the sediment at the top of the sequence has been partly oxidised by soil processes.

The pollen assemblages from these two sequences are rather similar with grass-dominated spectra, and arboreal taxa such as hazel, oak, alder & willow. It is clear that this assemblage does not represent the typical post-clearance landscape. The persistent presence of hazel (up to 22%) indicates shrubby woodland nearby (perhaps managed coppice), and the low frequencies of oak hint that fragments of mixed oak woodland still survived in the vicinity. The occurrence of alder and willow infer local areas of wet woodland (carr) nearby, although the pollen of obligate aquatic plants, such as bur-reed, was not particularly common. The abundance of grass and plants of tall-herb communities suggests meadow or pasture. Although the disturbance indicator, strapwort plantain was present in almost every sample, cereal pollen was rather infrequent, suggesting that any arable activity was small-scale and some distance from the site.

The pollen assemblages are difficult to date, but may suggest the Late Neolithic or Early Bronze Age environment, where partial clearance of the wooded landscape had begun, but arable activity was patchy and low-key.

Previous pollen analyses of sediments from a Collared Urn well at Longstanton yielded evidence of a post-clearance landscape dominated by pasture and meadow, with soil disturbance, and little evidence for arable activity. Those pollen assemblages have some similarities with those from F.526, although the latter clearly have a greater presence of arboreal taxa, and are judged to be somewhat earlier in the record.

It is of course possible that the pollen assemblages from F.526 are much younger than they initially appear. This might be the case if the well or pit features were sited within a partly wooded environment, which produced a local arboreal pollen signal and tended to exclude far-travelled pollen from surrounding arable fields. However, this does seems like special pleading, and care must be taken not to over-interpret these assessment pollen counts.

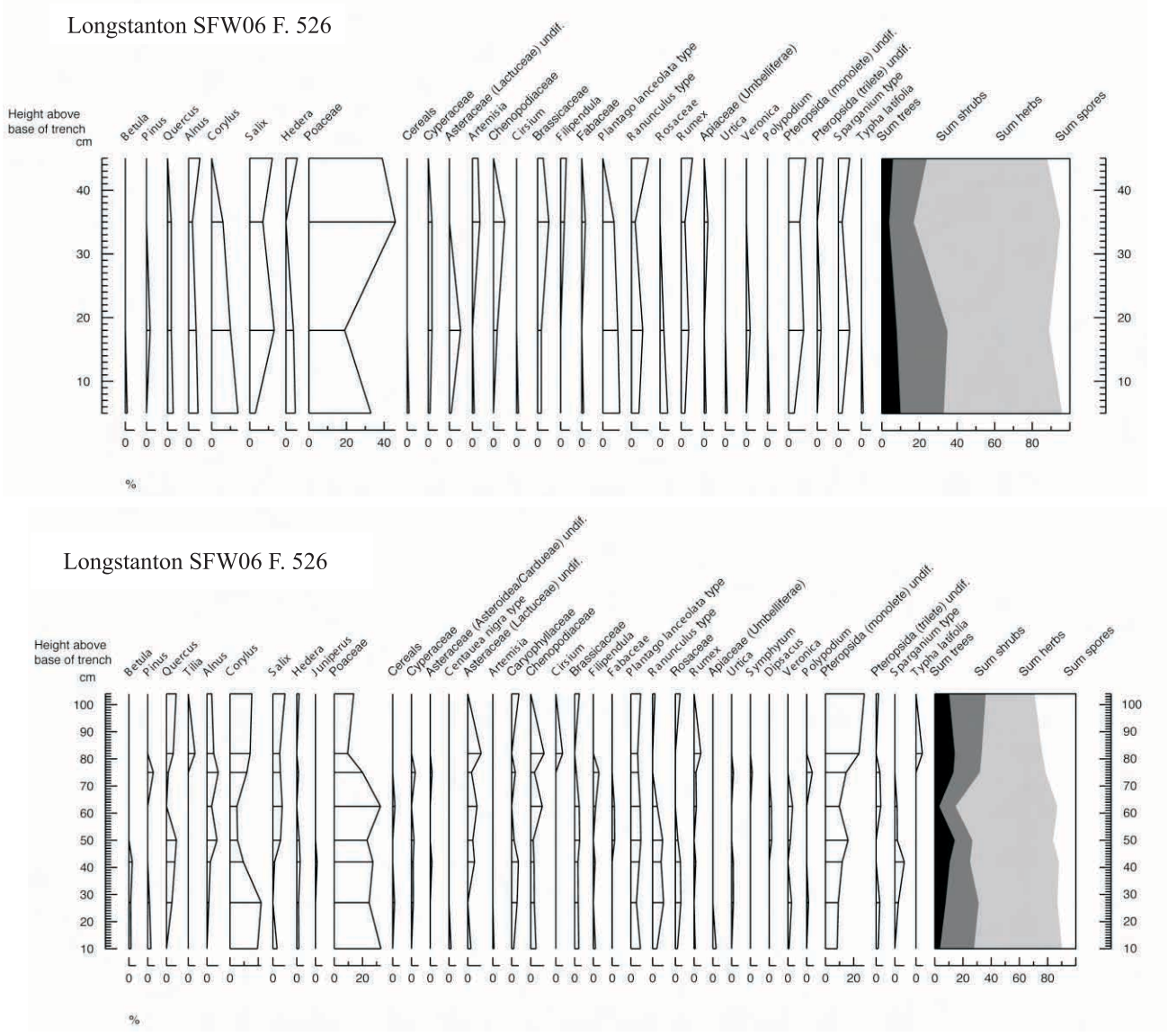
Longstanton SFW06 F. 526
Height above base of trench cm
Betula
Pinus
Quercus
Alnus
Corylus
Salix
Hedera
Poaceae
Cereals
Cyperaceae
Asteraceae (Lactuceae) undif.
Artemisia
Chenopodiaceae
Cirsium
Brassicaceae
Filipendula
Fabaceae
Plantago lanceolata type
Ranunculus type
Rosaceae
Rumex
Apiaceae (Umbelliferae)
Urtica
Veronica
Polypodium
Pteropsida (monolete) undif.
Pteropsida (trilete) undif.
Sparganium type
Typha latifolia
Sum trees
Sum shrubs
Sum herbs
Sum spores
%
Longstanton SFW06 F. 526
Height above base of trench cm
Betula
Pinus
Quercus
Tilia
Alnus
Corylus
Salix
Hedera
Juniperus
Poaceae
Cereals
Cyperaceae
Asteraceae (Asteroidea/Carduaeae) undif.
Centaurea nigra type
Asteraceae (Lactuceae) undif.
Artemisia
Caryophyllaceae
Chenopodiaceae
Cirsium
Brassicaceae
Filipendula
Fabaceae
Plantago lanceolata type
Ranunculus type
Rosaceae
Rumex
Apiaceae (Umbelliferae)
Urtica
Symphytum
Dipsacus
Veronica
Polypodium
Pteropsida (monolete) undif.
Pteropsida (trilete) undif.
Sparganium type
Typha latifolia
Sum trees
Sum shrubs
Sum herbs
Sum spores
%

Figure 16.