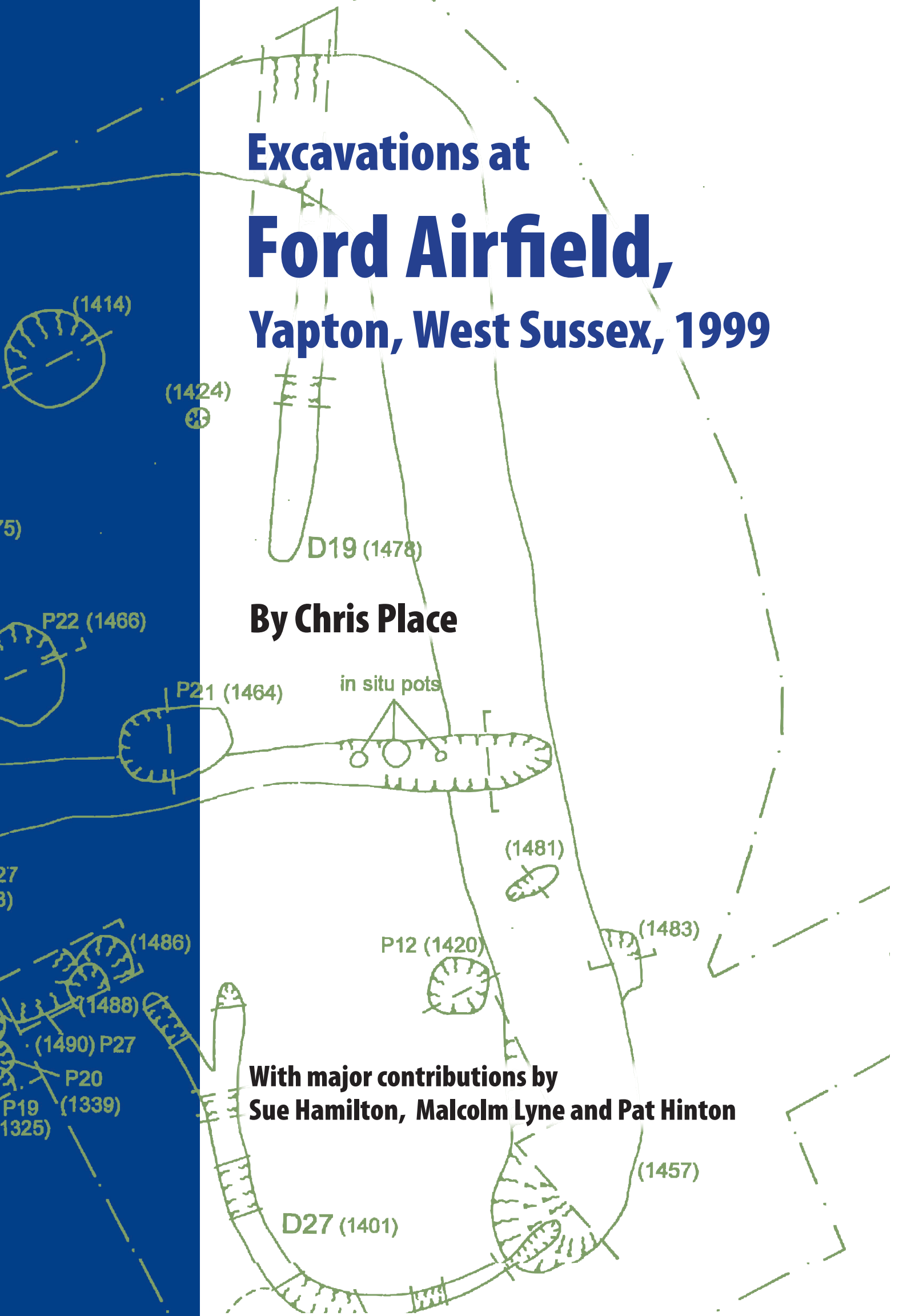
Excavations at
Ford Airfield,
Yapton, West Sussex, 1999

By Chris Place



With major contributions by
Sue Hamilton, Malcolm Lyne and Pat Hinton

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Heritage

Designed, Published and Printed by
Heritage Marketing and Publications Ltd
Hill Farm. Great Dunham, King's Lynn, Norfolk, PE32 2LP
Tel: 01760 755645 Fax: 01760 755316
e-mail: sales@heritagemp.com

ISBN 0 9544456 0 0

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Acknowledgements

The archaeological investigations were funded by Southern Water and their commitment to the work is duly acknowledged. In addition, RPS Planning Transport and Environment would like to acknowledge Southern Water and especially the Project Manager for the scheme Anneke Inigo-Jones for their day to day assistance and support in the execution of all phases of the project. The advice, enthusiasm and support of John Mills (archaeological officer for West Sussex County Council) are also gratefully acknowledged. The timely efforts and advice of all the specialists involved with the project was particularly appreciated, above all Sue Hamilton, Malcolm Lyne and Pat Hinton. The evaluation and the final stages of excavation on the Late Iron Age - Romano-British enclosure were directed by Rob Masefield. The project was managed by Rob Masefield and David Freke for RPS Planning Transport and Environment.

Summary

Excavation by the archaeological department of RPS Planning Transport and Environment on the site of the former airfield at Ford, West Sussex, recovered evidence for prehistoric and Roman settlement from the beginning of the first millennium BC to the second century AD The incomplete plan of a sub-rounded enclosure dating to the early first millennium BC was recovered, as was a substantial assemblage of later Bronze Age pottery with associated C14 dates. Several contemporary field boundaries and ditched trackways indicated that this part of the coastal plain had been enclosed by this date. The enclosure was subsequently used for limited cremation burial in the later Iron Age and a new co-axial field system was set out during this period on a different alignment to its predecessor. This latter field system may have been partially abandoned in the first century AD when a sub-rectangular enclosure was constructed. Use of the enclosure was short lived, with only limited evidence for activity continuing into the second century. The final phase of activity included limited iron working.

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INTRODUCTION

During 1999, a programme of archaeological works was undertaken by RPS Planning Transport and Environment Ltd in advance of and during the initial construction of a new waste-water treatment works for Southern Water at Ford, West Sussex (the Site). The programme of works, which was undertaken as a condition of planning consent, was wholly funded by Southern Water and included field evaluation, excavation, post-excavation assessment and final analysis. Written reports were prepared following the completion of field evaluation (Masefield 1999) and post-excavation assessment (Place 2000) and submitted to WSCC for inclusion in the Sites and Monuments Record, where they can be consulted. These include a full description and assessment of the Site Archive including stratigraphic relationships, fieldwork methodology and specialist reports not reiterated in full in this report. The Site and Research Archives are held at Littlehampton Museum under Accession Number AT0374.

Location, Topography and Geology

The Site is located in the north quadrant of the disused airfield at Ford (OS grid reference SU 994 033), between the villages of Yapton and Climping, approximately 2km to the west of Littlehampton, West Sussex (Figures 1 & 2). Situated on the West Sussex coastal plain at an altitude of between 5–7m OD the site is underlain by aeolian deposits ('brickearth') above raised-beach deposits (sands and gravels) that may correlate with marine sands recorded at Norton Farm (Bates *et al* 1997) and dated to *c* 190,000 years BP. The whole is underlain by Upper Chalk. The site is not crossed by any natural drainage features, although the area is dominated by the River Arun and its floodplain less than 1km to the east. Several small 'Rifes' and associated 'tributaries', such as the Ryebank Rife, are to be found within 1.5 km to the north, west and south of the Site (see Figure 1).

Fieldwork

Three phases of fieldwork were undertaken between February and June 1999. The evaluation (Phase 1) included the excavation of nine 50m x 2m trenches located systematically across the site as well as the excavation of Test Pit 1 to mitigate the effects of a substantial geotechnical test pit. Six trenches were excavated initially, with a further three trenches added to the evaluation in the light of the early results. The trench positions are illustrated on Figure 2. The final scope of the main excavation (Phase 2) was agreed with WSCC; trenches ET1, ET2 and ET3 (Figure 2) being located to examine areas in detail where the evaluation indicated that the proposed construction would most likely damage or destroy archaeological remains. Changing design solutions for the water treatment works meant that a limited amount of excavation and recording (Phase 3) had to be undertaken as mitigation during the initial construction phase. Fieldwork was restricted to the foundation pads and trenches for the Sludge Reception Area ('SRA' Figure 2) and the Inlet Works, Administration and Workshop Building ('AWB' Figure 2).

RESULTS

Mesolithic and Neolithic Activity

Initial activity in the area is evinced by later Mesolithic worked flint, of which the great majority was residual in the contexts from which it was recovered. The presence of microliths, serrated flakes, burins and debitage suggest the presence of a hunting-processing camp in the vicinity. It is not certain that the microliths and other tools were being produced here, but the recovery of bladelet cores and some broken bladelets suggest they may have been. The recovery of a leaf-shaped arrowhead and polished axe fragment suggests that similar activity may have continued into the early Neolithic. Elsewhere on the coastal plain, the widespread occurrence of flint and stone axes, flint arrowheads and other flint tools probably indicates extensive activity, such as the exploitation of natural resources (hunting, fishing, gathering plant material). No features date to this phase and there were no discrete concentrations of material. A detailed report on the material is contained in the assessment report and it is considered no further.

Early First Millennium BC Settlement, Environment and Economy

Stratigraphic evidence

Those features that most likely date to this period are illustrated on Figure 3. They include Enclosure E1, Pits P1 to P10 and P28, the double-ditched trackways T1-T3, ditches D1, D7 and D8, and numerous isolated post holes including, but not limited to, PH1-PH3.

Enclosure 1

Partial exposure of this feature within the excavated area suggests a 'square' enclosure with rounded corners. It is impossible to determine the size of the enclosure, although a 'diameter' of 30-50m would not be without precedent. The profile recorded in Figure 9, Section 7 indicates a re-cut. A date for the infilling of the ditch is provided by a small assemblage of Late Bronze Age medium-coarse and fine wares in the primary fills (1226) and the absence of any later material; although the pottery consists of eroded sherds that may have weathered prior to final deposition. Late Iron Age Cremation 1 (1296) was inserted into this feature when substantially filled and provides a *terminus ante quem*. Stratification within the ditch was insufficiently developed to indicate whether a bank was present and there were no internal features to suggest that such a feature might have been revetted.

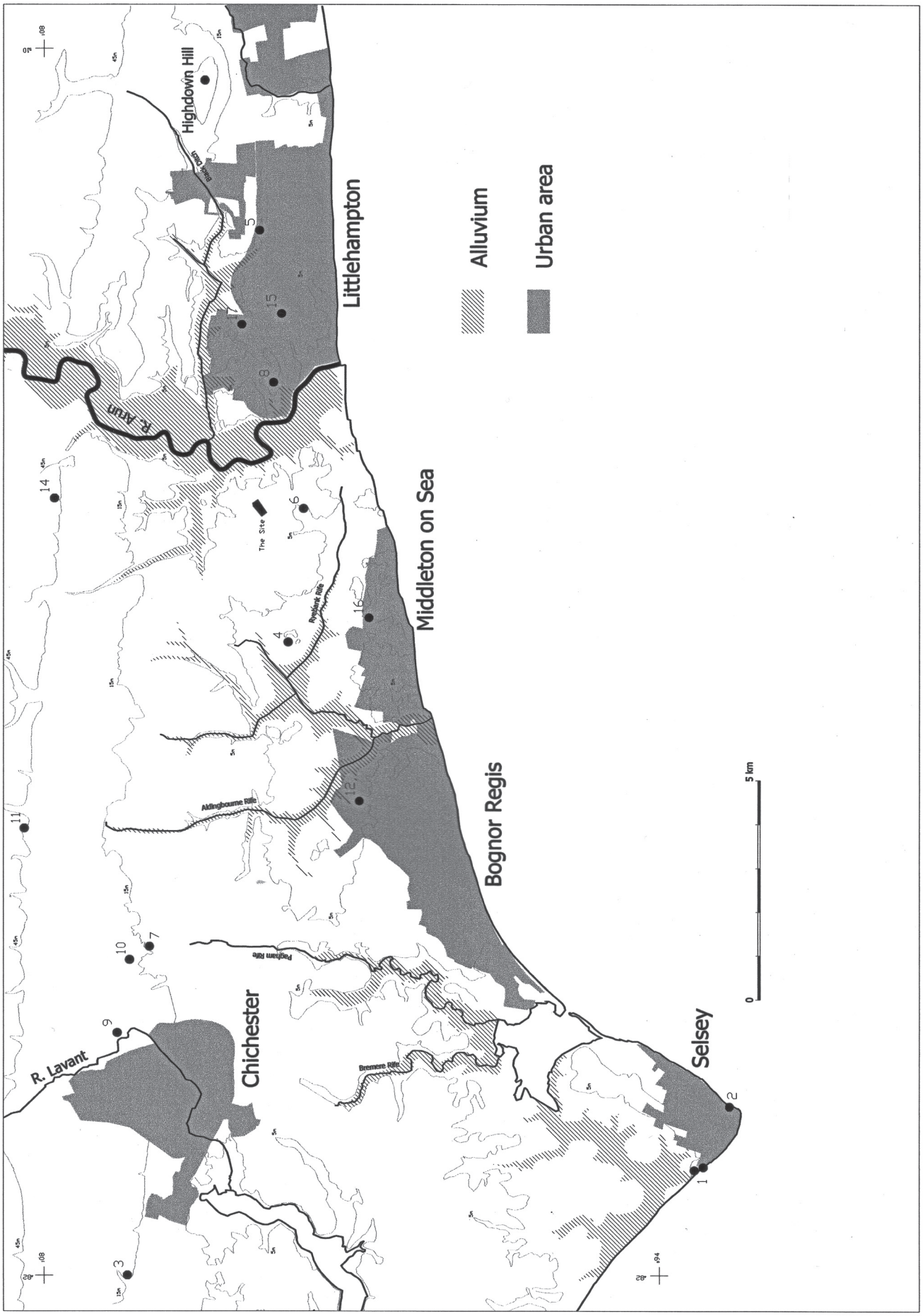


Figure 1 Site Location

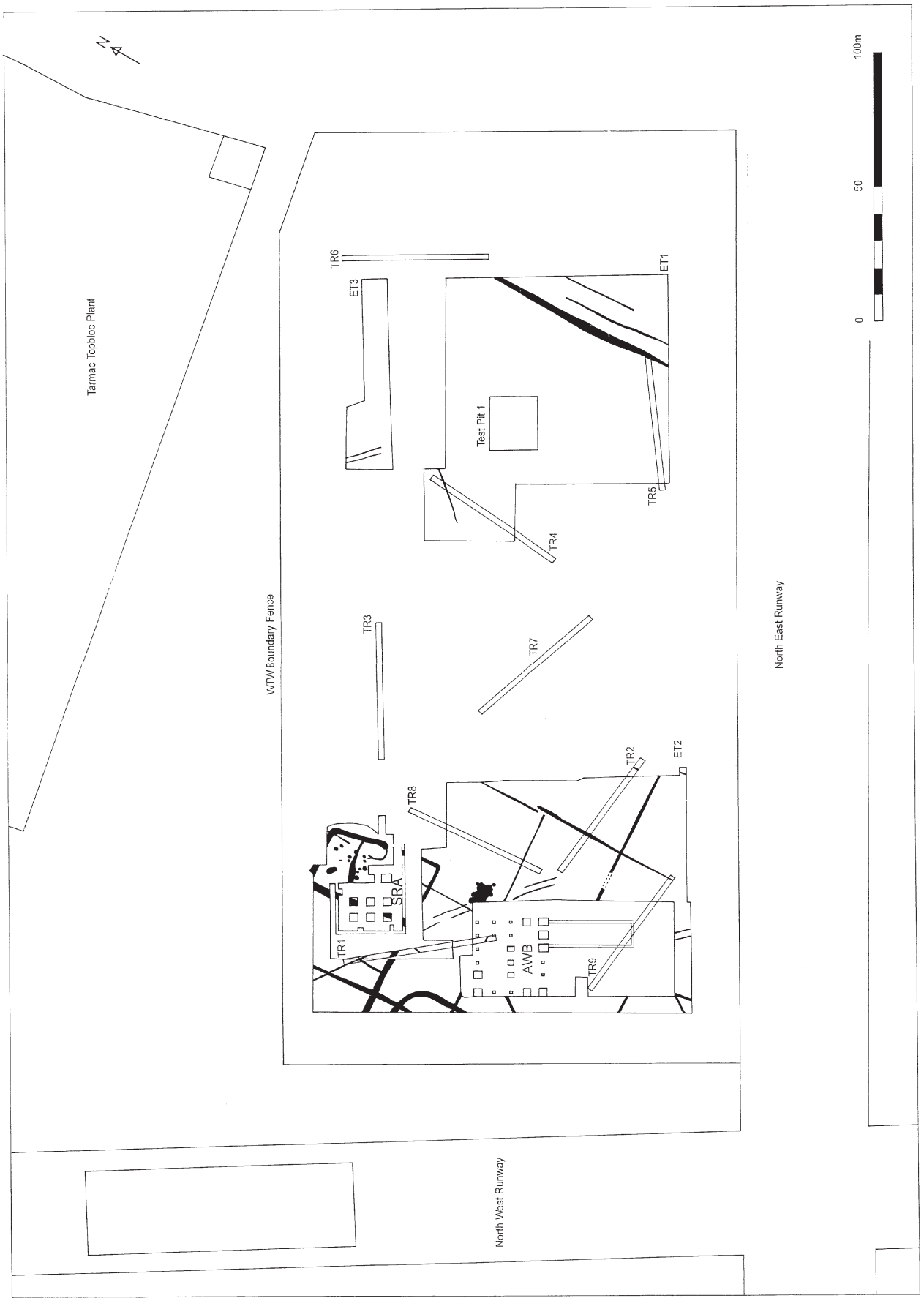


Figure 2 Site Plan

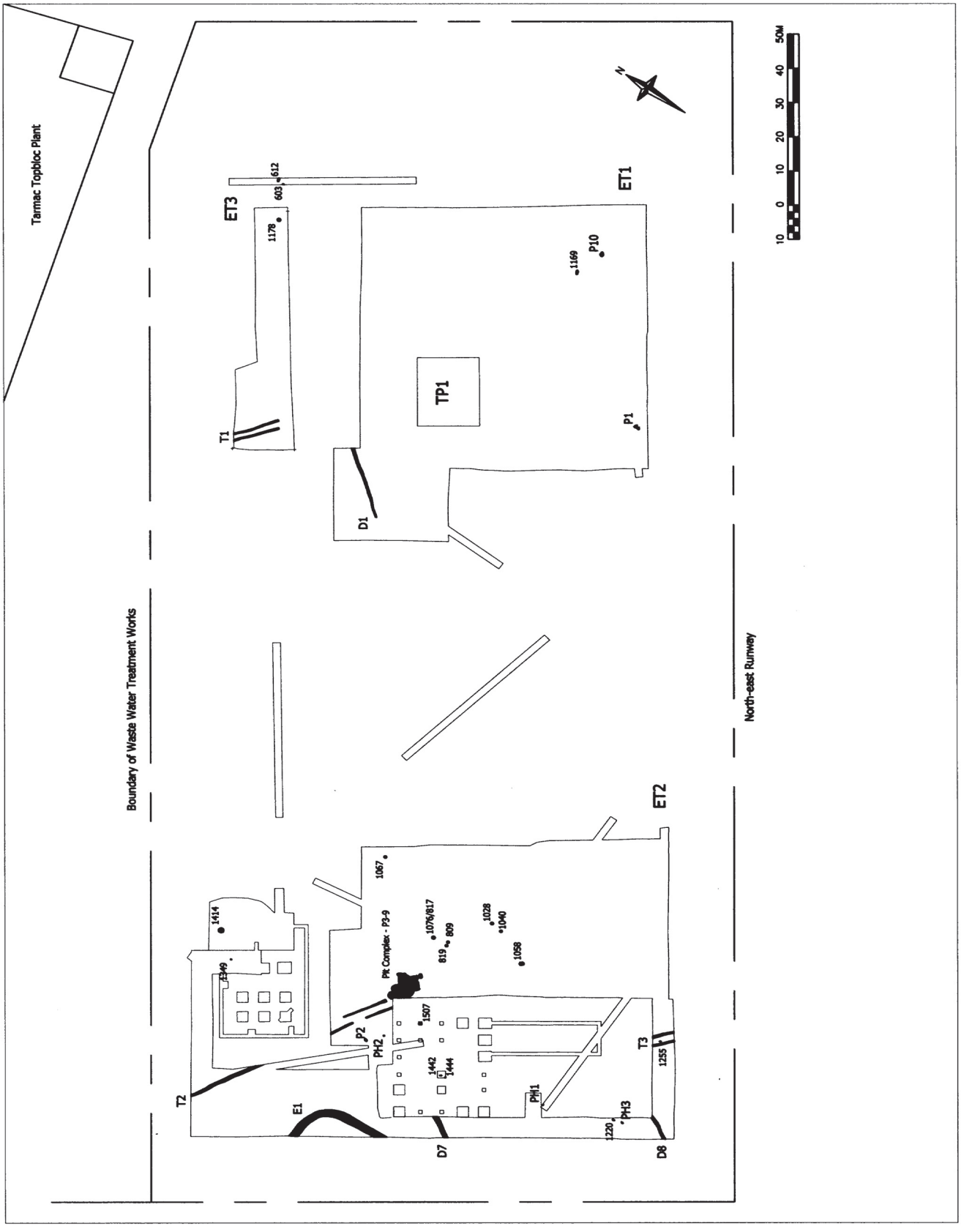


Figure 3 Late Bronze Age

Potentially similar enclosures (excluding larger enclosures/ hillforts such as Highdown Hill, Thundersbarrow Hill and Harrow Hill) although unknown from Sussex, have been examined elsewhere in the south-east. At Highstead, Kent, partial excavation revealed the corner of a rectilinear enclosure with an entrance and evidence for a revetted bank (Champion 1980, 237) (Macpherson-Grant *pers. com.*). Large quantities of pottery and a wide range of other finds suggested a strongly defended Late Bronze Age settlement dateable to the period *c* 850-800/750 BC. At Lofts Farm, Essex (Brown 1988), a double-ditched sub-rectangular enclosure measuring approximately 42 × 48m contained a probable post built round-hut, a possible post-built aisled building, four-post structures and other post and linear features. The site was interpreted by the excavator as a pastoral based farmstead.

Pits and post-holes

The following features are securely dated on the basis that the Late Bronze Age pottery sherds contained within feature fills display a relative lack of weathering and a larger size than for enclosure E1. Feature fills, obviously, also lack any later material.

Pits: P1 (510), P2 (1104), P3 (1136), ?P4 (1137), P5 (1140), P6 (1275), P7 (1276), P8 (1284), P28 (1243) and ?P9 (1111). (NB. Pit 4 may not be a separate feature and Pit 9 may be part of Pit 3).

Postholes: PH1 (904), PH2 (1042) and PH3 (1207)

Of the above, Pits 3, 4, 5, 6, 7, 8. 9 and 28 are inter-cut and form the complex of features illustrated on Figure 6 and Figure 9, Sections 1 and 2. The probable sequence of cutting and backfilling is illustrated in Figure 7. Several pits were probably open at any one time and the complex appears to have extended outwards from a central 'core'. The following radiocarbon AMS dates (2 sigma calibrated) have been attained from charcoal recovered from the pit fills: context 1085 – Cal BC 1100 to 820 (Beta 144445); context 1113 – Cal BC 1120 to 820 (Beta 144446); context 1264 – Cal BC 820 to 770 (Beta 144447). This 'pit complex' was most probably superimposed on Trackway T2 (see below), which must also be of a similar or earlier date. Concentrations of pits appear to be one characteristic of the few known Late Bronze Age settlement on the coastal plain and have also been recorded at Knapp Farm, Bosham (Gardiner and Hamilton, 1997) and Yapton (Rudling 1987), although such features were not observed at Rustington (Rudling 1990).

Pit 10 (1127) contains slightly weathered pottery sherds that may not have been buried immediately post-breakage. Other small pits/post-holes illustrated on Figure 3 (feature numbers have not been generated and context numbers only are illustrated) contained weathered Late Bronze Age pottery but no later material.

None of the above features are internal to Enclosure 1 or form any coherent patterns that might indicate structures such as granaries, storehouses, drying racks or upright looms that have been suggested for other sites (Ellison and Drewett 1971).

Trackways and other ditches

Ditches 1073/1046 (part of Trackway T2), contain slightly weathered Late Bronze Age pottery, while trackway T1 (1180, 1181) and ditch D1 both contain more heavily eroded material. No later material was recovered from the ditch fills. Together with trackway T3 and ditch D8 (from which no finds were recovered) they suggest a co-axial land division and are considered to be contemporary. The ditches were shallow (Figure 9, Sections 3, 4 & 6) and difficult to detect in the 'brickearth' subsoils and it is quite possible that short sections or longer continuations, if even slightly shallower, could have been removed during machining. Mindful of the above, it is impossible to be sure if the termination of T1 and T2, the causeway in T2 and the lack of a intersection between D7 and T2 are real or products of unequal survival. Nevertheless, the axial alignment of the trackways at Ford is remarkably similar to the landscape revealed on a much larger scale at West Deeping, Lincolnshire (Hunn 1993), which occupies a similar topographic location to Ford. Here, it is suggested that the trackways allowed the controlled passage of grazing animals between the lower lying floodplains in summer and higher, drier areas in autumn and winter (Pryor 1996). Similar management may have been practised at Ford (the trackways are aligned from the higher area of the site towards the Arun floodplain), although it is impossible to be sure.

This direct evidence for prehistoric land division is a rarity for the coastal plain, where soil conditions do not allow the identification of such features by aerial photography, although it is insufficient to allow a detailed consideration of whether pastoral or arable regimes are represented. Nevertheless, the presence of trackways/droveways does suggest that the controlled movement of grazing animals was an important consideration (Pryor *op. cit.*, 314).

Economic and environmental evidence

Charred plant remains and charcoal (**Interpolating the results of analysis by Pat Hinton and Sophie Seel**)

The poor recovery of animal bone from the Site (none was recovered from Bronze Age contexts) neither supports nor refutes the indirect evidence for animal husbandry presented above. As with other sites on the coastal plain acidic ground conditions have probably destroyed what material was present, resulting in an underestimation of the importance of animals in the local economy.

By contrast, the recovery of charred seeds (see below for specialist report) gives a useful, if perhaps skewed, picture of the local economy. Seventeen samples produced charred seeds (Table 1; see Table 2 for common names) but exceptional is that from context 1162 (Pit 5), with the greatest number and representing a wide range of species. Context 1141, stratigraphically above 1162 in Pit 5, included fewer seeds but they complement those from the lower context. All samples contain cereals to some extent. Wheat (*Triticum* spp.) is present in eighteen of the seventeen, barley (*Hordeum* sp.) in eight and oats (*Avena* sp.) only in two, but all samples include small cereal fragments not identifiable to species.

It is probable that most, if not all, of the wheats are the glumed wheats emmer and spelt (*Triticum dicoccum* and *Triticum spelta*). Certain characteristic features of the grains

Table 1 Charred Plant Remains – Late Bronze Age

Context/ Feature	**509**	**905**	**915**	**1041**	**1046**	**1085**	**1102**	**1141**	**1162**	**1176**	**1110**	**1113**	**1187**	**1261**	**1067**	**1096**	**1127**
	P1	–	–	**PH2**	**T2**	–	**P2**	**P5**	**P5**	**P5**	**P3**	**P4**	–	–	–	–	–
Sample volume (litres)	5	5	7	40	30	40	50	30	40	10	20	20	10	20	10	10	10
Cereals																	
Triticum cf *dicoccum* – grains									10						1		
- glume bases									3								
Triticum cf *spelta* -grains		3				3		4	8			2	1		5		
- glume bases								4									
Triticum dicoccum/spelta – grains						1			40								
- glume bases						2			37		2						
- rachis node frags.									28	1							
Triticum cf *aestivum* s.l.		?1							?1						1		
Triticum sp.	1	2		1		2	2	5	10		1	3		1	13	1	1
Hordeum vulgare - grains	?1	3	1		2	?1		28	57	1							
- rachis internodes		1						1									
Avena sp. – grains								2	14								
- floret base									1								
- awn fragments									8			1					
Cerealia indet. – grains & frags.(ml.)	<0.5	<0.5	<0.5	<0.5	<0.5	.5	<0.5	0.5	c.2.0	<0.5	<0.5	<0.5	<0.5	<0.5	c.1.0	<0.5	–
Oil or fibre plant																	
Linum usitatissimum L.									68								
Arable, ruderal or grassland plants																	
Ranunculus acris/repens/bulbosus									1								
Papaver sp.							2				1						
Urtica dioica L.									2								
Chenopodium album L.		2	2	2	2		2	186	c.400	5	14	1					
Chenopodium sp.			2	1		1		4				3					
Atriplex sp.						1			1								
Stellaria media/neglecta								7	24	7	16		1				
Persicaria maculosa Gray						1	1	8	83	2		1			2		
Fallopia convolvulus (L.) Á.Löve								1	25								
Rumex acetosella L.							1	2									

Table 1 continued

Rumex cf crispus									5								
Rumex sp.			1					1	20		1						
cf Sisymbrium *sp.*									1								
Brassicaceae indet.									3		1	1					
Aphanes arvensis L.									1								
Vicia tetrasperma (L.) Schreb.									2								
Vicia. cf sativa						1			2								
Vicia/Lathyrus sp.									2								
Medicago lupulina L.									1								
Solanum dulcamara L.									1								
Plantago lanceolata L.									1								
Galium aparine L.					1												
*Tripleurospermum inodorum (L.)*Sch.Bip									44	1							
Asteraceae indet.									1								
Poa annua L.								2			44						
Alopecurus/Phleum sp.									4								
Bromus secalinus/hordeaceus	1	1		1		1	1	2	21	1	1						
Arrhenatherum elatius var. bulbosum (L.) P.Beauv. – culm nodes							?1										
Poaceae indet.		2				1	2	1	c.250		6	4			1		1
Damp ground plants																	
Juncus cf effusus type							16										
Luzula cf campestris							1										
Carex spp.					1	3											

Table 2 Scientific and common names of identified plants (in order of appearance in tables etc.)

Triticum dicoccum	Emmer
Triticum spelta	Spelt
Triticum aestivum	Bread wheat
Hordeum vulgare	Hulled barley
Avena sp.	Oats
Linum usitatissimum	Flax, Linseed
Pisum sativum	Pea
Vicia faba var. minor	Small broad or field bean
Ranunculus acris/repens/ bulbosus	Meadow, creeping or bulbous buttercups
Papaver sp.	Poppy
Urtica dioica	Stinging nettle
Chenopodium album	Fat hen
Chenopodium sp.	Goosefoot
Atriplex sp.	Orache
Stellaria media/neglecta	Common or greater stitchwort
Persicaria maculosa	Redshank
Fallopia convolvulus	Black bindweed
Rumex acetosella	Sheep's sorrel
Rumex crispus	Curled dock
Rumex sp.	Dock
Polygonaceae indet.	Dock family
Viola sp.	Violet or pansy
Sisymbrium officinale	Hedge mustard
Raphanus raphanistrum	Wild radish
Brassicaceae indet.	Cabbage family
Aphanes arvensis	Parsley piert
Vicia tetrasperma	Smooth tare
Vicia sativa	Common vetch
Lathyrus sp.	Vetchling
Medicago lupulina	Black medick
Trifolium sp.	Clover
Euphrasia/Odontites	Eye-bright or Bartsia
Veronica cf serpyllifolia	Thyme-leaved speedwell
Veronica hederifolia	Ivy-leaved speedwell
Solanum dulcamara	Bittersweet
Solanum nigrum	Black nightshade
Plantago lanceolata	Ribwort plantain
Galium aparine	Cleavers, goosegrass
Tripleurospermum inodorum	Scentless mayweed
Asteraceae indet.	Daisy family
Festuca sp.	Fescue
Poa annua	Annual grass
Alopecus/Phleum sp.	Foxtail or cat's tail grass
Bromus secalinus/hordaceus	Rye grass or soft brome grass
Arrhenatherum elatius var. bulbosus	False oat grass or onion couch
Danthonia decumbens	Heath grass
Poaceae indet.	Grass family
Juncus effusus	Soft rush
Luzula campestris	Field wood-rush
Carex sp.	Sedge
Corylus avellana	Hazel

allow suggested identifications but sure identification to species is not possible without the diagnostic chaff, present here as glume bases in only two samples. In context 1162 many of the grains could be either of the above species but among the well-preserved glume bases are some more robust forms, rounded and with traces of strong veins, which are convincingly spelt and other narrower bases more typical of emmer. Only three wheat grains are of a shorter, more compact form suggestive of a free-threshing wheat (*Triticum* cf *aestivum* s.l.) but these might also be spelt. Most of the samples include grains that although damaged or distorted can be recognised as wheats but not further differentiated.

Grains of hulled barley (*Hordeum vulgare*), distinguishable by their more angular form, are present less frequently than wheat but in the rich sample from context 1162 they are in almost equal numbers. For three of these it is likely that their asymmetry is that of the lateral grains of 6-row barley rather than an effect of charring. There is no evidence to suggest the presence of naked barley.

Oats (*Avena* sp.) appear only in the same two fruitful samples from Pit 5. As with the wheats specific identification depends upon more than the grain alone. Fortunately among the fourteen grains in context 1162 is one floret base which bears the disarticulation scar of *Avena fatua*, a wild oat, and this may well be the identification of the other oats.

Also present are some very poorly preserved grains and small fragments that can be recognised only as cereal in origin. In the majority of samples there is little information to be gained as to the processing stage of the cereals as found.

The other cultivated crop plant represented in the Bronze Age samples is flax, or linseed (*Linum usitatissimum*), and again it is context 1162, in which the *Linum* seeds form a significant proportion, which provides the evidence. Of the 68 seeds several are distorted by charring but there are a few sufficiently well preserved on which it is possible to see the cell distribution which distinguishes this cultivated species from perennial flax (*Linum perenne*). Linseed is found more rarely than cereals but this does not necessarily reflect its importance. It requires no heating in the earlier stages of preparation and so, unlike the glumed wheats which need drying and parching, is less likely to become accidentally burned. The plant has been reported from British prehistoric sites; first as impressions in Neolithic pottery (Helbaek 1952), and increasingly as charred or waterlogged seeds at Middle and Late Bronze Age sites onwards. It is not possible to say whether the plant was cultivated for its oil-rich seeds (linseed) or for fibre (flax). When grown for fibre the uprooted plants require a longer period of processing which includes softening in water. The association with cereals in this deposit does seem to imply that the plant was grown for the nutritious seeds.

The wild plant seeds are those of typical arable weeds and other disturbed ground while some, such as the rush (*Juncus* sp.) from Pit 2 (1104) indicate damp or muddy places. Outstanding however are the large numbers of fat hen (*Chenopodium album)* seed*s* in contexts 1141 and 1162. The small round seeds of recent fat hen can infiltrate older deposits via root tracks and fissures, and indeed a few uncharred fat hen seeds were in fact found here. However, about 40 seeds, selected randomly, showed the brittle fracture of charred material when tested by pressure and it is therefore assumed that the majority are contemporary with the remainder of the assemblages in these two samples. It might be that these had been gathered as a food supplement, but a single plant of this common arable weed may produce about 3000 seeds (Salisbury 1961). Small grass seeds also were numerous in the sample from Context 1162 but this

was a particularly rich sample and the numbers are perhaps not necessarily disproportionate. Unfortunately, the wild plant seeds, in conjunction with the charcoal, provide little information on the local environment. The seeds recovered are mainly of species that readily grow in any disturbed ground and the charcoal was insufficient to form a basis for environmental interpretation. Species identified from the latter comprised oak, maple and hawthorn.

The alluvial soils of the coastal plain would have been eminently suitable for cereal production and those represented here most likely were grown in the vicinity, although barley would be an appropriate crop for the lighter calcareous soils of the adjacent chalk downs. Flax or linseed can be grown in varying conditions, from clays to light sandy soils but it flourishes on friable loams.

Other material

The non- Mesolithic/Neolithic worked flint recovered during excavation was most probably sourced from the coastal plain and local beaches. The apparent random selection of any flint available, irrespective of quality and size is typical of flint procurement in the Bronze Age. With the exception of two fabricators, two scrapers, two scraper/piercers, one notched/scraper and one notched/piercer, which may be later Neolithic/Early Bronze Age, the implements recovered represent the most common implement types occurring in the Bronze Age (Ford et. al. 1984): viz. scrapers, a single piercer and two notched pieces. All of the worked flint appears to be residual and is considered no further. A more detailed description of the collection is included in the Assessment Report.

Discussion

The evidence presented above and in the specialist pottery report below is taken to indicate that in all probability enclosure E1 indicates the location of a small, enclosed settlement. Despite the lack of evidence for settlement structures such as huts within E1 or elsewhere, the range of pottery recovered, the nature of its deposition and the recovery of a range of arable seeds does suggest the presence of an agricultural settlement within the immediate area.

Late Bronze Age settlement elsewhere on the coastal plain is evinced by recent finds from Selsey (Seager-Thomas, 1998 – see Figure 1, 1; Kenny, 1988- Figure 1, 2) Knapp Farm, Bosham (Gardiner and Hamilton 1998- Figure 1, 3), Yapton (Rudling, 1987- Figure 1, 4), Rustington (Rudling, 1990- Figure 1, 5), Climping (Stevens, *pers. com*.- Figure 1, 6) and Westhampnett, Area 4 (Wessex Archaeology, 1993) (Figure 1, 10). Pottery from Yapton has been dated by parallels to the 9th-8th centuries BC (Hamilton in Rudling, 1987): subsequent radio-carbon age determination has provided a date of 910-530 cal. BC. The pottery from Selsey has also been ascribed a similar date on stylistic grounds, with that from Knapp Farm dated to the 10th-8th centuries BC. The pottery from Rustington displayed characteristics of both Late Bronze Age and Deverel-Rimbury traditions, suggesting a date of *c* 1000/900 BC (Hamilton in Rudling, 1990).

Whilst the above is indicative of settlement, only Rustington produced evidence for settlement structures, where one and possibly three post-built huts, areas of burnt clay and several pits/depressions were excavated. The remaining sites consist of groups of pits and isolated pits, usually containing pottery and other rubbish possibly derived from nearby middens: such rubbish disposal perhaps signalling the 'decommissioning' or abandonment of the site. This is not to suggest that we are observing different classes of site, but rather the sampling of differing parts of similar sites where the sampling strategy is dictated and constrained by development. Larger scale sampling in advance of gravel extraction in the Kennet Valley, Berkshire, has revealed groups of pits in association with probable hut structures (Bradley *et al* 1980) and this may be a good indication of the type of site represented by recent findings on the coastal plain.

The finds from Ford help to re-emphasise the importance of the coastal plain in the early first millennium BC, although it is by no means certain if this represents a shift of settlement away from the Downs during this period as suggested by Ellison (1980, 34). Recent work at Varley Halls (Greig, 1997), Downsview (Rudling, 2002), Mile Oak (Russell in Rudling, 2002) and Patcham Fawcett (Greatorex in Rudling, 2002) on the Downs east of the River Adur indicates some, albeit reduced, continuity of use from the Middle Bronze Age until the 9th/8th centuries BC. Possible Late Bronze Age huts/platforms were recorded at Varley Halls and Downsview, whereas at Patcham Fawcett and Mile Oak the evidence was confined to pits and metal working respectively.

Late Iron Age/Early Roman Settlement, Environment and Economy

Stratigraphic evidence

Middle-Late Iron Age *c* 300 BC–0

Fragments of two saucepan pots were recovered from Late Iron Age features and are presumably residual in their contexts. A single cremation (Figure 4, C2) (see specialist report, below) and associated pottery vessels dated to *c* 90–50 BC was (?)inserted into the uppermost fill of enclosure E1, from which fragments of a (?)Dressel 1A amphora was also recovered. It seems likely that the enclosure was still partially visible as an earthwork and was selected deliberately for the internment. There is no structural evidence, however, for any settlement or other activity associated with this phase. The pottery is discussed in more detail in the specialist report below.

Late Iron Age *c* 0–AD 50

A co-axial field system was laid out or at least started to silt up during this period. Orientated north-south/east-west it is aligned at approximately 45° to its Late Bronze Age predecessor. The field system, which comprises ditches D9(1232), D10(1093), D11(1082), D12(1079), D13(1278), D14(206), D15(1053), D16(104, 1010, 1281), D17(1101), D18(1224, 1286, 1288), D19(1478), D20(304) and D21(1434) extends over all of ET2 but does not extend as far as ET1/3 (Figure 4). Ditches D2(1238) and D3(1165) are, however, on the same alignment and at least D3 is of the same date. They may represent a contemporary trackway. The ditches are similar in plan and profile, with Sections 8 (D12; s96), 9 (D18; s154) and 10 (D16; s53) illustrated as representative (all Figure 9). The different depths and width at the top are

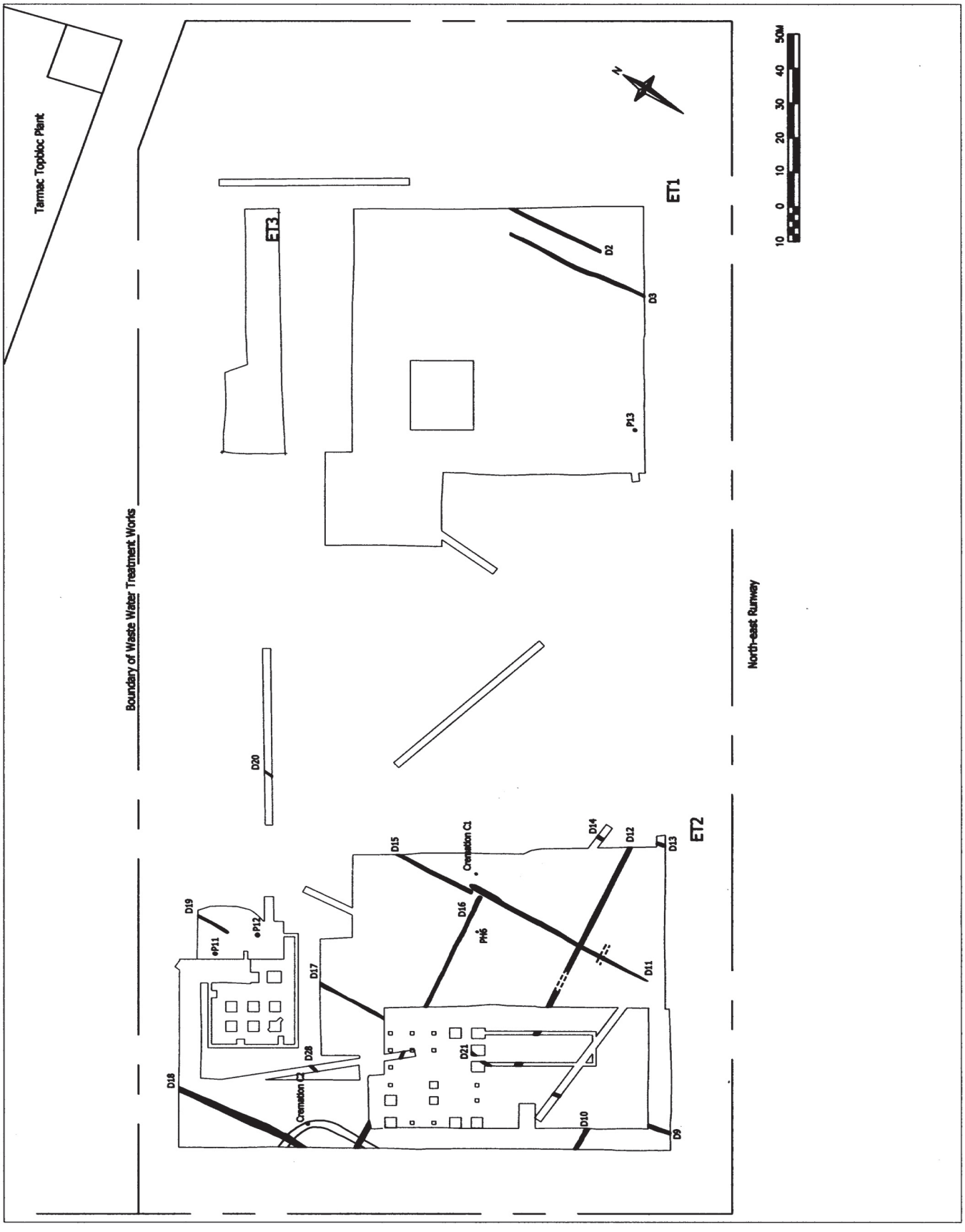


Figure 4 Late Iron Age (c.100 BC – AD 50)

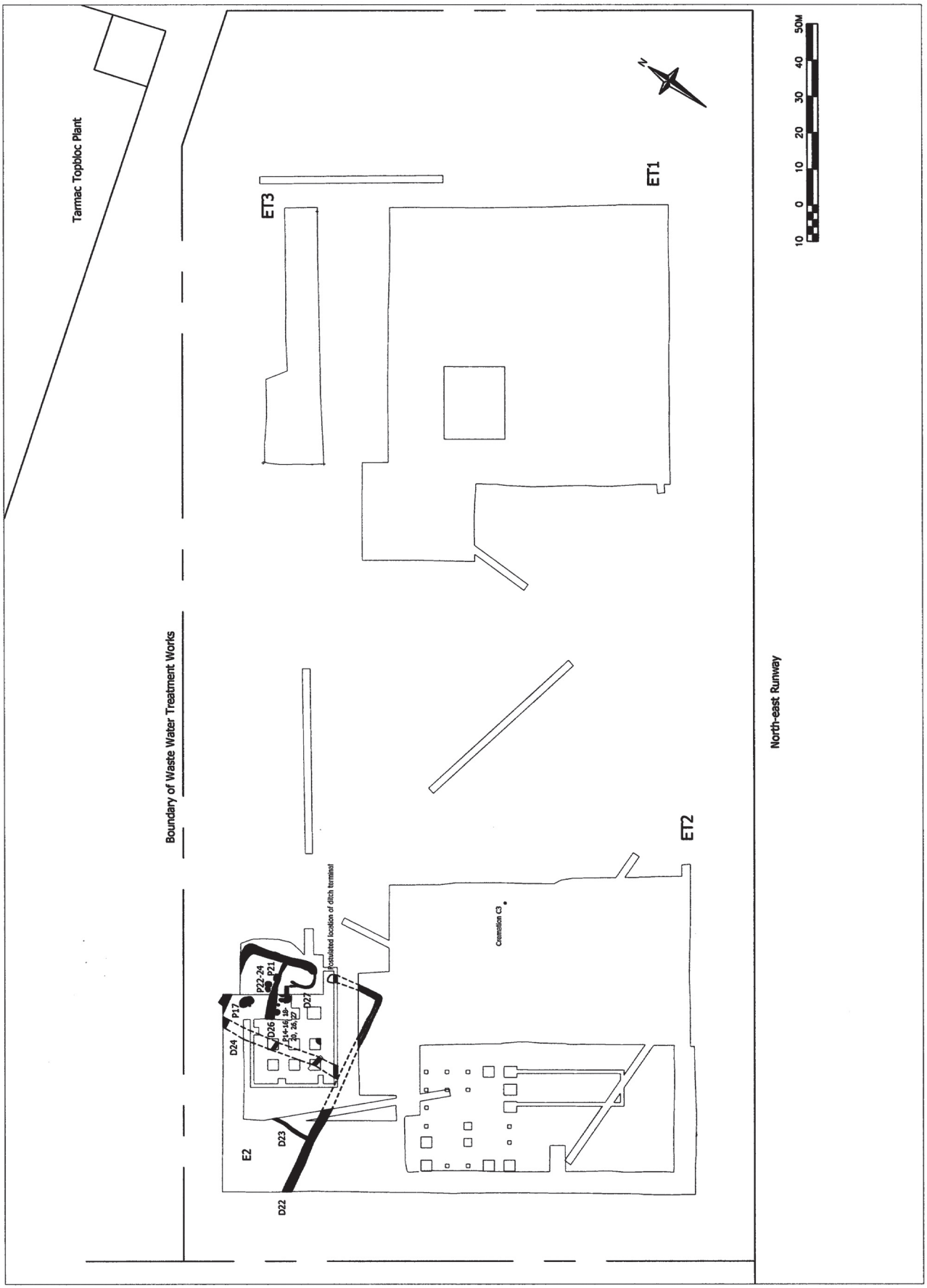
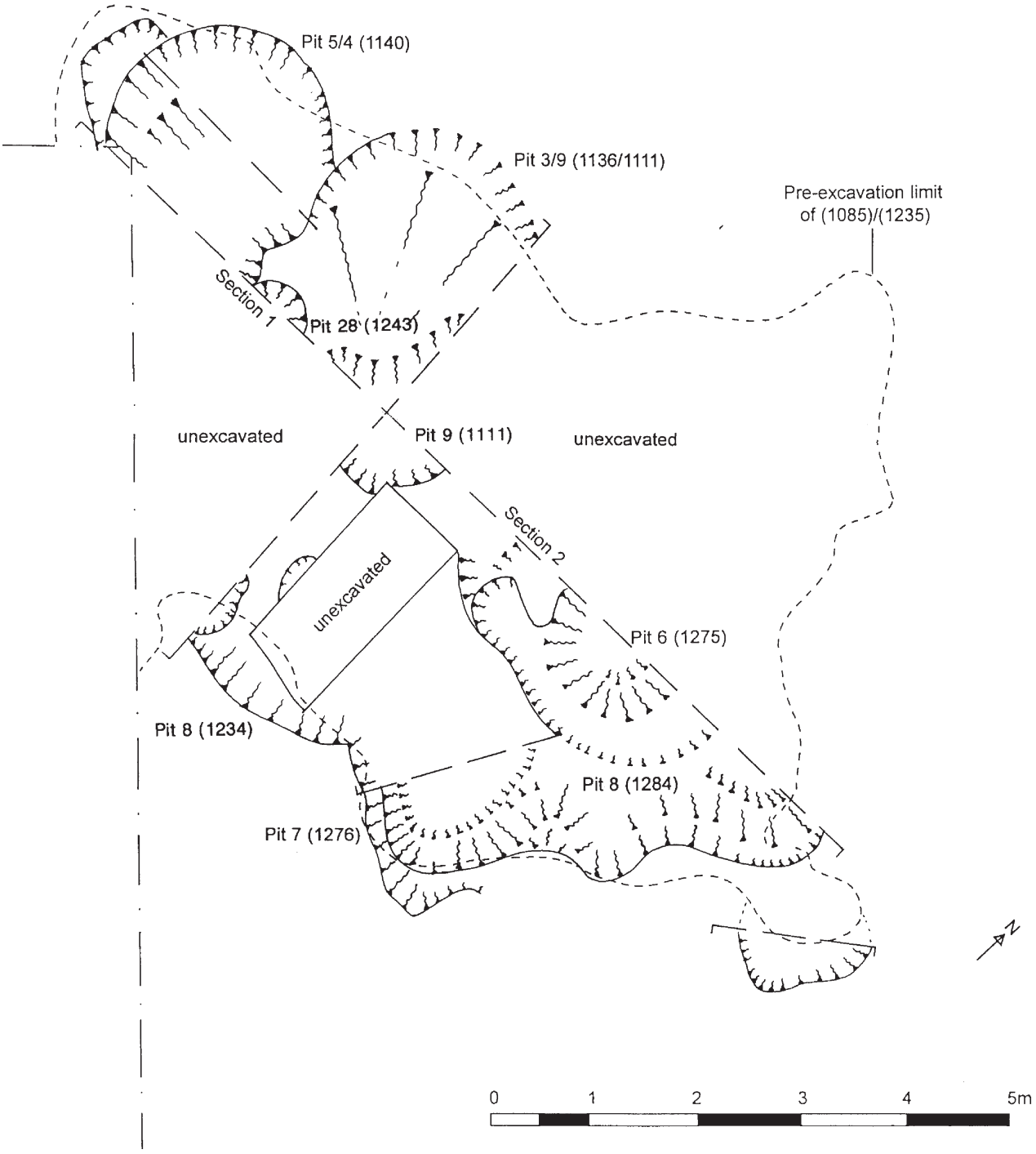


Figure 5 Roman c. AD 50 – 150

Figure 6 Pits 3 – 9



most probably a function of the depth of topsoil/sub-soil stripping. Other contemporary features include ditch D28 (110), pits P11 (1475), P12 (1420), P13 (1159) and PH6 (1020) and probably cremation C1 (1095) (see specialist report below). There is no evidence of settlement within the Site, although the concentration of pottery in ditch D10 (1093; see specialist report below) may indicate that this is to be found to the south or west of ET2.

Pre-Flavian *c* AD 50–70

The major period of activity occurred during this phase and appears to have concentrated in Enclosure E2 to the exclusion of the rest of the Site (Figure 5). None of the sections excavated across the co-axial field system contained pottery in primary contexts dateable to this subsequent phase and Figure 10, Section 11 (s153) suggests that Enclosure E2 was superimposed on ditches that had already silted up.

E2, which is defined by ditch D22 (112, 1089, 1209, 1345, 1452, 1457), is rectangular in plan with rounded corners and has a maximum north-south excavated dimension of approximately 40.5m and a minimum east-west excavated dimension of approximately 67m (Figure 8). Ditch D22 is of variable depth and width, although the minimum dimensions at its south east corner are probably a product of heavy machining. At its maximum it is 2.2m wide and 0.9m deep. Its variable profile is illustrated in Figure 9, Sections

12 (s170) and 13 (s107). Pottery from the ditch fills (see specialist report below) provides a date of *c* AD 50–70, with evidence to suggest that activity was considerably less intense after AD 60.

The internal dividing ditches D23(114, 1214) and D24 (1198, 1418, 1517, 1521) may be contemporary with D21, although the junction between D21 and D24 fell outside the area of excavation making it impossible to determine their stratigraphic relationship. Ditch D23, which measures approximately 0.80m wide and 0.56m deep (Figure 10, Section 14; s158) is markedly smaller than D24 (Figure 10, Section 15; s127), which is up to 2.6m wide and 0.8m deep.

Several pits (e.g. P14 (1314), P15 (1320), P16 (1316), P17 (1362), P18 (1335), P19 (1325), P20 (1339) (Figure 10, Sections 16 and 17; s161, s164) of Pre-Flavian date are contained within the interior of E2.

Early Roman c AD 60/70–150

The evidence for activity during this period, which overlaps temporally with the preceding one, lies mainly in the stratigraphic relationship of ditches D26 (1311, 1329, 1331, 1462=1455) and D27 (1401) to the main enclosure ditch D22 (both clearly cut into a fully silted D22). In addition, pits P21(1511), P22 (1464), P23 (1466), P24 (1471), P25 (1524) and some pottery within enclosure ditch D22 and ditch D26 appear also to be contemporary. The very meagre amounts of pottery that can be ascribed to this period suggests that 'full-time' occupation ceased soon after AD 60.

Ditch 26 is a shallow, 'U'-profiled feature, with the evidence from Section 18; s163 (Figure 10) suggesting that it was re-cut at least twice and migrated slightly to the south in the process. Four complete upturned pots were emplaced within the fills at its eastern end, two of which should date to before *c* AD 60 and could be as early as Late Iron Age in date.

Ditch 27 is a narrow, shallow (up to 0.15m deep and 0.5m wide) 'U'-profiled gulley, semicircular in plan. The majority of slag and other bloomery waste (see below) was recovered from this feature, perhaps indicating that it may represent evidence for a small wind-break or shelter to protect metalworking activities from the predominant south-west wind. The concentration of features containing charcoal within the immediate area substantiates the notion that this was an area of industrial activity requiring heat.

Economic and environmental evidence

Charred plant remains, charcoal and animal bones
(Interpolating the results of analysis by Pat Hinton, Lucy Sibun and Sophie Seel)

Very little animal bone was recovered from contexts of this period and as with earlier contexts it is likely that an acidic soil has destroyed the potential evidence. Fragmentary cattle teeth and unidentifiable long bone fragments were recovered from the ditch fills of enclosure E2. As with the Late Bronze Age, however, the presence of a possible ditched trackway in ET1 may be indirect evidence that pastoralism was more important than the direct evidence suggests.

Fifteen samples were examined from Late Iron Age contexts for carbonised plant remains: all contained small numbers of cereals and seeds (Table 3). More or less well-preserved wheat grains in four samples suggest spelt and one glume base in another sample confirms its presence. Two grains (in two contexts, 1019 and 1342) are shorter and bear some resemblance to free-threshing bread wheat but, as before, could equally well be spelt. Hulled barley is represented only in one sample by three grains, of which one suggests 6-row barley. There is no evidence of oats.

A single flax seed, is doubtful evidence of its cultivation in the Iron Age. It is one of only two seeds in Context 1019, the other being one of the possible bread wheats. These probably are merely chance finds of widely distributed charred items of unknown provenance.

Wild plant seeds comprise arable weeds and plants of other disturbed places. Brome grass (*Bromus* sp.) is a frequent accompaniment of spelt. The lower culm nodes ('tubers') of false oat grass or onion couch (*Arrhenatherum elatius*) in one, possibly three, samples might be classed as 'weeds' as the nodes can be re-distributed during soil cultivation and each may produce a new plant. An alternative interpretation, since they frequently occur with cremation pyre material, is that they are burned when dry grasses are used in fuel. Fragments of hazel nut shells (*Corylus avellana*) in two samples may of course represent food debris or possibly chance inclusions acquired when hazel wood was cut for other purposes presumably at no great distance.

There is more charred material from the Early Roman period. Of 16 samples more than half include seeds in sufficient numbers to provide useful information about agricultural practice and the environmental background (Table 4). Contexts 1470 and 1467 are particularly rich in cereals, almost entirely wheat. Glumed wheats predominate and as before grains and damaged glume bases cannot be securely distinguished. However spelt seems to be the major wheat species, which is typical of wheat cultivation in the Roman period, with characteristic grains in eight samples and convincing spelt chaff in seven. Only in four instances are there grains which strongly suggest free-threshing bread wheat. Hulled barley appears in about half of the samples and in one (Context 1091) can be identified as 6-row barley. Oats, as before not identifiable to species, occur in five samples. In two instances chaff was recovered in sufficient quantities to suggest that whole spikelets of wheat (rather than fully prepared grain) may be involved. It is likely that the earlier stages of processing, i.e. threshing and first sievings took place nearby. Otherwise, there is little information to be gained as to the processing stage of the cereals as found. Flax seeds appear again, only in two samples, but taken with the one seed from the Iron Age phase it does suggest that flax cultivation may have continued from the Late Bronze Age. It is not possible to say whether the plant was cultivated for its oil-rich seeds (linseed) or for fibre (flax).

First found at this site in the Early Roman period are peas (*Pisum sativum)* and small broad or field beans (*Vicia faba* var. *minor*). The peas are identified by their distinctive hilum in two contexts (1091 and 1326) and other fragments of similarly sized cotyledons (seedling leaves) may well also be of peas. Peas are rarely reported before the Roman period but there is an Iron Age record for Hengistbury Head (Nye & Jones 1987). The beans also are identified by their form

Table 3 Charred Plant Remains – Late Iron Age

Feature	**PH6**	**–**	**D3**	**D6**	**P12**	**C2**	**–**	**D16**	**D12**	**D12**		**D16**	**P26**	**–**	**D24**
Context	**1019**	**1062**	**1165**	**1227**	**1421**	**1296**	**1011**	**1035**	**1079**	**1077**	**1092**	**105**	**1342**	**1047**	**1519**
Sample volume (litres)	**20**	**20**	**20**	**20**	**10**	**110**	**1**	**20**	**20**	**20**	**10**	**10**	**20**	**20**	**20**
Cereals															
Triticum cf *spelta* – grains								2	2	1		2			
– glume bases							1								
Triticum dicoccum/spelta – grains															
– glume bases			1				1								
– rachis node frags.										2					
Triticum spelta/aestivum	1												1		
Triticum sp.									3	1					
Hordeum vulgare – grains															
– rachis internodes									3						
Avena sp. – grains															
– awn fragments															
Cerealia indet. grains & frags. (ml.).		<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Oil or fibre plant															
Linum usitatissimum L.	1														
Arable, ruderal or grassland plants															
Chenopodium album L.				2	4		1								
Chenopodium sp.			1		2				1						
Atriplex prostrata/patula				2											
Stellaria media/neglecta					1		1		1						
Persicaria maculosa								1	2						
Fallopia convolvulus (L.)Á Löve				2											
Rumex acetosella L.											1				
Rumex cf crispus									1		1				
Rumex sp.											1				
Sisymbrium cf *officinale*		1													
Raphanus raphanistrum L. pod sections						3									
Brassicaceae															
Medicago lupulina								1			1				
Trifolium sp.															1
Veronica cf *serpyllifolia*											1				
Euphrasia/Odontites sp.															1
Galium aparine L.								2							
Poa annua L.					2										
Bromus secalinus/hordeaceus				4	4				2	1					
Arrhenatherum elatius var.															
bulbosum (L.)P.Beauv – culm node					?1					3	?1				
Danthonia decumbens (L.) DC											1				
Poaceae indet. – caryopses										2	2				
– culm fragments				2			1			?	4				2
Woodland/wood margin															
Corylus avellana L. nut shell fragments							1			1					

Table 4 Charred Plant Remains – Early Roman

Feature	D27	D26		D22		D26	P15	P23	P19	P14	P23	P17	D22	P27	D24	P25
Context	**1402**	**1463**	**1020**	**1091**	**1105**	**1310**	**1319**	**1470**	**1326**	**1333**	**1467**	**1357**	**1458**	**1491**	**1513**	**1525**
Cereals																
Triticum cf *spelta* – grains			4	5		22	13	c.150	2	5	c. 90					
– glume bases			3			5		c.700	7		c.200			19	3	
Triticum dicoccum/spelta – grains						7	3	c. 50	3	4						
– glume bases			9	2		32		c.500	1	1	c. 50					
– rachis node fragments			4			5			1	1				10		
Triticum cf *aestiivum* s.l.			1	?1	5			5								
Triticum spelta/aestivum						1	1									
Triticum sp.			8	13		8		c.100			6	1		3		
Hordeum vul.gare – grains		1	3	4	3	10	2	3	6		2				3	
– rachis internode															1	
Avena sp. – grains				9		7		16		1						
– awn fragments								2							2	
Cerealia indet. – grains & frags.(ml.)	<0.5	<0.5	<0.5	<0.5	<0.5	c.0.5	c.0.75	>2.0	c.0.75	<0.5	c.1.0	<0.5	<0.5	<0.5	<0.5	<0.5
Pulses																
Pisum sativum L.				1					1 + ?2							
Vicia faba L.			?1	?1		1	1 + ?1	1								
Oil or fibre plant																
Linum usitatissimum L.						4					1					
Arable, ruderal & grasssland plants																
Urtica dioica L.											1					
Chenopodium album L.	3			1							1					2
Chenopodium *sp.*					1						2					
Atriplex *sp.*				2												1
Stellaria media/neglecta	7			4	4	6					1			2		3
Rumex acetosella L.											1					
Rumex cf *crispus*			1	1	2				1					1		
Rumex *sp.*			3	7		6						1				
Polygonaceae indet.									1	?1						1
Viola *sp.*			1													
Raphanus raphanistrum *L. – pod section*					1											
Aphanes arvensis L.					1			1						1		
Vicia tetrasperma (L.) Schreb.			1	3		2			1						1	
Vicia hirsuta/tetrasperma			6	13	1	4		1			1				2	
Vicia sativa s.l.			4	3		4						1			3	
Vicia/Lathyrus sp.				2		1		4			2					
Medicago lupulina L.				8		3										
Trifolium cf *pratense*			1			2										

Table 5 Fired Clay and Metallurgical Remains

Context	Frags.	Weight (g)	Description	Context	Frags.	Weight (g)	Description
1001	1	11	fired clay with vitrification	1402	13	520	iron bloomery forging slag inc. plano-convex forms
1026	1	15	iron bloomery forging slag	1402	>22	140	fired clay with metalliferous vitrification
1046	1	1	fired clay with metalliferous vitrification	1402	26	730	iron bloomery forging slag
1058	1	7	iron bloomery forging slag	1402	>50	360	fired clay with metalliferous vitrification
1080	3	14	fired clay with natural iron inclusions	1402	1	7	fired clay with vitrification + iron inclusions
1091	>3	46	iron bloomery forging slag	1402	26	50	iron bloomery forging slag inc. prills
1091	1	21	fired clay with iron inclusions	1402	45	35	fired clay with metalliferous vitrification
1102	1	1	fired clay with vitrification	1402	many	28	hammer scale
1110	1	1	iron bloomery forging slag	1405	8	78	iron bloomery forging slag
1176	1	7	iron bloomery forging slag	1405	1	14	fired clay with metalliferous vitrification
1197	1	113	iron bloomery forging slag	1421	1	30	fired clay with metalliferous vitrification
1312	1	7	fired clay with vitrification	1485	>7	57	fired clay with vitrification
1350	2	1	high temperature iron slag	1487	>30	230	fired clay with metalliferous vitrification
1402	3	300	iron bloomery forging slag inc. plano-convex forms	1491	2	4	fired clay with metalliferous vitrification
1402	4	2	fired clay	1497	1	18	fired clay with vitrification
1402	1	14	iron bloomery forging slag	1497	1	7	coarse, fired clay with charcoal inclusions
1402	1	14	iron bloomery forging slag	1497	1	4	fired clay with vitrification
1402	>23	190	coarse, fired clay with vitrification	1519	1	1	iron bloomery forging slag

and their characteristic hilum, preserved in three samples. Fragments from two other contexts are likely to be parts of bean cotyledons. Both peas and beans are found increasingly during the Roman period.

The soil conditions required for cereal production have already been discussed in relation to the Late Bronze Age. Peas grow better on light soils and beans, while tolerating most soils, are best on medium loams. (Newsham & Gunston 1947). These crops then could well have been locally produced, with perhaps only the barley 'imported' from the chalk downs.

The wild plant seeds and charcoal provide little information on the local environment. The seeds recovered are mainly of species which readily grow in any disturbed ground and the charcoal was insufficient to form a basis for environmental interpretation. Species identified from the latter comprised oak, maple, ash, hazel, and hawthorn and may indicate secondary woodland or scrub communities in the area.

Metallurgical remains (interpolating the results of analysis by Jeremy Hodgkinson)

The iron slag and fired clay recovered during excavation (see Table 5) all showed characteristics typical of the forging stage in the production of iron, in which the consolidation of a raw bloom would entail the separation of slag adhering to it, followed by smithing to shape the iron. A small quantity of hammer scale confirms that smithing was taking place. The fired clay is also consistent with iron forging. A shallow depression would be formed on the ground surface. Charcoal would be heated in this depression, using a forced draught, and the bloom brought to a temperature sufficient to melt the slag and make the iron malleable. In the course of this the underlying ground would be baked to a temperature of up to 1200ºC, which would cause some vitrification of the silica in clay or sand, as well as the partial absorption of some of the slag into the surface.

A bloom was the basic product of a bloomery, or iron furnace using the direct smelting process, whereby malleable iron was produced directly from ore. Bloomeries were the only means of making iron in Britain from the beginning of the Iron Age until the end of the medieval period, and sources of iron ore existed in the Weald where smelting on a significant scale took place from the second century BC onwards. During the first two centuries of the Roman occupation the Weald was the main iron production region for the province (Cleere and Crossley, 1995). The association of the metallurgical remains from the Site with artefacts of Late-Iron Age to early-Romano-British date would be consistent with iron making of the type described.

The total weight of iron slag submitted, excluding hammer scale, amounted to 1898g. This corresponds to approximately 1kg less than the slag adhering to a single bloom made during bloomery iron smelting experiments carried out by Crew (Crew 1991). It is possible, therefore, that the slag excavated at Ford was the product of the working up of a single or perhaps a few iron blooms. This would not constitute an 'industrial' use of the site; instead, it suggests an agricultural

or domestic use, probably with a specific purpose in mind.

It is likely that the iron bloom to which the excavated material relates was made in the Weald, but the means of distribution of such products can only be inferred. Unworked blooms may have been 'sold' to agricultural communities as part of a distribution network which included other products. Alternatively, members of such communities may have been responsible for small-scale smelting activity, perhaps during summer grazing in the Weald, returning with blooms to be worked up in the winter.

Discussion

Enclosure and settlement of the coastal plain during the later Iron Age is evinced from excavation at Copse Farm, Oving (Bedwin and Holgate 1985)(Figure 1, 7), Wick Farm Road, Littlehampton (Gilkes 1993) (Figure 1, 8), Oldplace Farm, Westhampnett (Bedwin 1983)(Figure 1, 9), Westhampnett, Area 5 (Wessex Archaeology, 1993) (Figure 1, 10), Boxgrove (Bedwin and Place 1995) (Figure 1, 11) and the slightly earlier site at North Bersted (Bedwin and Pitts 1978) (Figure 1, 12). The enclosures and field systems recorded on air photographs at Great Hidden Farm and Park Farm, Arundel may also date to this period (King 1979) (Figure 1, 13 & 14 respectively).

At Copse Farm pottery evidence suggests occupation during the late first century BC, but probably not continuing into the first century AD: a characteristic noted by the authors for Oldplace Farm (Bedwin, 1983). At both sites there are also indications that occupation/activity was 're-established' during the early Roman period (mid-first century) at enclosure complexes at a short distance from the Iron Age foci.

At Wick Farm Road, by contrast, a rectangular enclosure was dated to the early decades of the first century AD on the basis of pottery contained within dumps of domestic refuse. The enclosure was then re-cut in the immediate pre-conquest period: pottery from the fills of the re-cut included Gallo-Belgic imports with a possible date range of AD 18–45. There was also very little Samian ware and the coarse pottery displayed no forms that were considered to be later than the mid-late first century AD Excavation was not possible within the enclosed area and thus it is not known if it contained settlement features such as huts and pits etc. At Westhampnett, Area 5, five post-built round houses were excavated and dated to the first century BC-first century AD.

Whilst there is no direct evidence for domestic settlement at Ford the assemblage of Late Iron Age pottery from ditch D10 does suggest its proximity in the early first century AD This, in association with the field system itself, is additional evidence that the apparent discontinuity is settlement between the end of the first century BC and the mid-first century AD is less real than evidence from other sites suggests (Bedwin and Holgate *op. cit*., 241).

Ditched trackways/droveways are a characteristic of Copse Farm and, together with the 'trackway' at Ford and the possible stock control enclosures at Great Hidden Farm, may indicate the need to manage animals on a large scale and thus the importance of pastoralism in the local economy. Where animal bone has survived in significant quantities on the coastal plain, for example Copse Farm and North Bersted, it appears that cattle are predominant at the expense of sheep/goat.

The local soils of the coastal plain would have been suitable for the growing of all the cereals recovered, although barley would be an appropriate crop for the lighter calcareous soils of the chalk downs and this is perhaps reflected in its numerical inferiority in the samples recovered. The increase of spelt in the Late Iron Age samples is typical of wheat cultivation as reflected in many other sites and wheat is almost always the major cereal identified from sites on the coastal plain of Sussex, e.g at Littlehampton (Lovell, forthcoming), Boxgrove (Bedwin & Place 1995), Bognor (Hinton, unpublished client report) and Westhampnett (Fitzpatrick et al., forthcoming).

Pre-Plavian and later occupation/activity at Ford concentrates around Enclosure 2. This may represent a re-location away from the possible Late Iron Age activity suggested by the pottery from ditch D10 and thus reinforces the pattern seen at Copse Farm and Oldplace Farm. The similarity of plan between the Ford and Oldplace Farm (Bedwin 1983, Fig. 4) enclosures can be noted. There are no domestic structures such as huts contemporary with Enclosure 2, although the wide range of vessel types present in Assemblage 3 (see specialist pottery report) probably indicates domestic activity. The dearth of fine wares and near absence of Samian suggests that the site was of low social status during this period. Towards the end of this period Enclosure 2 is further sub-divided by ditch D26 and the small ring gulley, D27, is superimposed on the already infilled terminal of the enclosure. At this stage the character of activity changes and the Site is associated with a brief phase of iron working.

'Non-villa' early Roman settlement/farmstead sites have received relatively little attention in Sussex (Rudling 1998, 47) and for this reason it is difficult to draw detailed parallels between Ford and many other local sites. The presence of a mid-first century farmstead pre-dating the Gosden Road villa (Figure 1, 15) has been suggested (Gilkes 1993), although there is no unequivocal evidence of the nature of occupation. Likewise, the proximity of a Late Iron Age – early Roman settlement, associated with a field system and probably abandoned by the early 2nd century AD, has been inferred at Rustington (Rudling 1990) (Figure 1, 5). The main phase of occupation at Boxgrove (Bedwin and Place 1995) (Figure 1, 11) is dateable to the mid- to late-first century AD and appears to be associated with an enclosed landscape. A first to second century AD rural settlement was excavated at Middleton on Sea (Barber 1994) (Figure 1, 16) with indications for one possible post built small building and boundary/field ditches. Ditched trackways dating to the late-first/second century were investigated at Littlehampton (Gilkes and Hammond 1991) (Figure 1, 17). In general, the limited evidence suggests small arable farmsteads operating in an enclosed landscape. Where samples have been analysed, for example at Middleton on Sea and Boxgrove, wheat (spelt) is the dominant cereal. Peas were also recovered from Middleton on Sea and as such the evidence from Ford accords well with the general trends established for the coastal plain. Notwithstanding this, it would be wise not to underestimate the importance of pastoralism in the local economy, albeit the evidence is slight and at times indirect. In common with the evidence presented above for the Late Iron Age it would appear that cattle were numerically more important than sheep and pigs (Bedwin and Place *op. cit*.; Barber *op. cit*.)

SPECIALIST REPORTS

Early First Millenium Pottery of the West Sussex Coastal Plain

By Sue Hamilton

Introduction

The early first millennium BC assemblage from Ford comprises 3316 sherds and weighs a total of 21.3kg. The majority of this pottery can be dated to the early Late Bronze Age, but some later Late Bronze Age/Early Iron Age forms are also present. This assemblage substantially adds to a growing number of early first millennium BC assemblages now known from the West Sussex coastal plain (Gardiner and Hamilton 1997). Both in sherd numbers and weight this is the largest early first millennium pottery assemblage yet recovered from Sussex. Another important Late Bronze Age assemblage from the West Sussex coastal plain comprises the recent finds from Selsey West Beach. The latter has produced a similarly large weight of pottery, although fewer sherds (c. 1300 sherds, Seager-Thomas pers. comm.).

The stratigraphic context and spatial zonation of the pottery

The stratigraphic integrity of the assemblage

In common with the other earliest first millennium BC assemblages from Sussex, none of the Ford Airfield pottery is *in situ* in terms of being recovered from the specific locations of its original use (Hamilton 1987). The Ford Airfield pottery has been deposited in pits and ditches, either as an on-going tradition of rubbish disposal and artefact decommissioning, or as a result of clearing on abandonment of the site. Much of the pottery is of large pieces and is relatively un-abraded. This suggests that it was deposited into the features relatively soon after the pots went out of use. This pottery can therefore be used to provide a *terminus post quem* for the feature's active use. Given the absence of pottery of an immediately preceding date, and minimal presence of pottery of an immediately succeeding date, it can be presumed that this un-abraded pottery assemblage relates to the community who used and created the features.

Stratigraphic contexts for the first millennium BC pottery

Recent finds of earliest first millennium BC pottery assemblages from the West Sussex coastal plain includes those from Knapp Farm (Gardiner and Hamilton 1997), Yapton (Hamilton 1987), Selsey West Beach (Seager Thomas 1998) and Selsey East Beach (Kenny 1989), Birdham (recent finds unpubl, Archaeology South East), Climping (recent finds unpubl., Archaeology South East), Chichester Westgate (recent finds, unpubl. Archaeology South East), and Rustington Site B (Hamilton 1990). Additionally, there are older, unstratified finds from Selsey Golf Links Lane (Hamilton 1993; White 1934). These sites have produced a very restricted range of features associated with the pottery, the most recurrent pottery-bearing context being that of a cluster of inter-cutting pits. This has been detailed on a small scale for Knapp Farm (Gardiner and Hamilton 1997) and Yapton (Hamilton 1987). The features associated with the Selsey West Beach have been interpreted as well-pits (Seager Thomas pers. comm.), which importantly adds another category of early first millennium BC feature to be associated with Sussex Late Bronze Age pottery. Ford Airfield is particularly important in providing an early first millennium BC assemblage from a range of contexts, namely pits, ditches, trackways, and 'levelling' deposits. This *de facto* suggests that the pottery may be more reflective of a full domestic assemblage that the smaller samples recovered from sites such as Knapp Farm and Yapton.

Key first millennium BC pottery groups

The stratigraphic integrity of the Ford Airfield pottery assemblage

This section discusses the key information concerning the stratigraphic context of the Ford Airfield pottery. Further details on the stratigraphic locations of all of the Ford pottery are given in Tables 6-9. The stratigraphic presence of the pottery clearly is important for the phasing of the site and its features, and details of this are here given. It is however equally important to consider the stratigraphic integrity of the assemblage for isolating the nature of the activities associated with pottery using. Such a consideration demonstrates that the earliest first millennium BC assemblage (Late Bronze Age) can be treated as a coherent coeval assemblage. Additionally, there are early first millennium BC forms (associated with Fabric Type 9, see later) which are later than the bulk of the assemblage. These indicate a limited Early Iron Age activity on site, not necessarily continuous with the original occupation (possibly a smaller scale reoccupation). Their association with Late Bronze Age sherds in some contexts also suggests some stratigraphic mixing of material (see Pit 4 and layer/deposit 1085), perhaps relating to this Early Iron Age activity. The general lack of early first millennium BC sherds from the ploughsoil (Table 6), and the greater presence of Iron Age and Roman, however, suggests that the majority of the early first millennium BC assemblage remained undisturbed post deposition, and is thereby largely reflective of original on-site processes and activities.

Ford Airfield: securely stratified Early first millennium BC pottery groups

A number of contexts contained un-abraded pottery. This, together with the generally larger sherd size of such pottery, and the higher number of sherds in certain contexts (unassociated with pottery of other periods), were the criteria on which securely stratified pottery was isolated.

The trackway pottery

T2 (Context 1046: 16 sherds, Fig. 11). T2's associated Ditches 1046/1073 have abraded sherds, but all of Late Bronze Age type (Context 1086:2 sherds, Context 1087: 19 sherds). Collectively these are the earliest stratigraphic contexts for the earliest first millennium BC assemblage. The pottery is comparable with the pottery groups from the pit complex that superimposes it. This indicates that they are essentially part of the same pottery assemblage and probably relate to a concentrated phase of site activity. Key pottery forms: Externally expanded rim from a round-shouldered (?) jar (Fig. 11.1).

Table 6 Sherd counts for early first millennium BC pottery according to fabric types and site contexts: unstratified pottery and pottery from cuts, tree throws, deposits, and cremations

		Fabrics										
		CW	MCW	MCW	MCW	MCW	MCW	MCW	FW	FW	FW	UC
	Contexts	1&2	3	4	5	6	7	8	9	10	11	
Unstratified	36	10	2	22	0	0	0	0	0	2	0	
P/soil	505	0	0	4	0	0	0	0	0	0	0	0
	802	0	0	0	0	0	0	0	0	0	0	0
S/soil	602A	0	0	0	0	0	2	0	0	0	0	0
Cut	Fill											
612	613	0	6	0	0	0	0	0	0	0	0	0
908	909	0	0	2	0	0	0	0	0	0	0	0
1427	1426	1	0	0	0	0	0	0	0	0	0	0
Tree Throws												
1097	1096	1	0	0	0	0	0	0	0	0	0	0
1492	1493	6	3	0	0	0	0	0	0	0	0	0
1505	1506	0	0	0	0	0	1	0	0	0	0	0
Deposits	1085	471	19	11	5	0	5	0	0	102	0	0
	1126	15	0	0	0	0	0	0	0	2	0	0
Cremations	1296	3	0	0	0	0	1	0	7	0	0	5

Key *CW=coarsewares; MCW=medium-coarse wares; FW= finewares; UC=Late Bronze Age fabrics which cannot be further classified; P/soil= ploughsoil; S/soil=subsoil.*

Table 7 Sherd counts for early first millennium BC pottery according to fabric types and site contexts: pottery from ditches

		Fabrics										
Contexts		CW	CW	CW	MCW	MCW	MCW	MCW	FW	FW	FW	UC
Ditch	Fill	1&2	3	4	5	6	7	8	9	10	11	
104	105	0	0	0	0	0	0	0	0	0	0	2
116	117	0	0	3	0	0	0	0	0	0	0	0
404	405	0	0	1	0	0	0	0	0	0	0	0
807	808	0	1	0	0	0	0	0	0	0	0	0
906	907	0	1	0	0	0	0	0	0	0	0	0
1010	1000	0	3	0	3	0	0	0	0	0	0	2
	1001	0	4	0	2	0	1	0	0	0	0	0
	1004	0	0	0	0	0	1	0	0	0	0	1
	1021	0	0	0	0	0	0	0	1	0	0	0
	1035	0	1	2	0	0	3	0	2	0	0	3
1046	u/s	4	0	1	6	1	0	0	1	0	0	3
	1086	0	0	0	2	0	0	0	0	0	0	0
	1087	2	0	0	6	0	0	0	0	0	0	11
1079	1077	0	0	0	0	0	0	0	1	2	0	0
	1080	0	0	0	2	0	0	0	2	0	0	0
	1084	4	0	8	0	0	1	0	19	9	0	6
1093	1048	0	1	0	0	0	0	0	0	0	0	0
1101	1114	0	0	1	0	0	0	0	0	5	0	0
	1199	0	0	0	0	0	0	0	1	0	0	0
1116	1115	0	0	0	0	0	1	0	0	25	0	0
1122	1109	2	0	0	0	0	0	0	0	0	0	0
1165	1166	1	0	0	0	0	0	0	0	0	0	0
1180	1182	2	0	0	0	0	0	0	0	0	0	0
	1183	0	0	0	0	0	0	0	0	1	0	0
1181	1184	0	0	1	0	0	0	0	0	1	0	0
	1185	1	0	0	0	0	0	0	0	0	0	0
1209	1211	0	1	0	0	0	2	0	1	0	2	0
1216	1217	0	6	2	0	0	1	0	0	0	0	0
1224	1223	0	0	0	0	0	0	0	0	2	0	0
1227	1226	0	0	2	0	0	0	0	0	17	0	0
	1295	2	4	0	0	0	0	0	0	0	0	0
1278	1279	0	0	0	0	0	0	0	0	0	1	0
1281	1282	0	4	0	0	0	1	0	0	0	2	0
1286	1290	0	0	0	0	0	0	0	1	0	0	0
1478	1479	0	0	0	0	0	1	0	0	0	0	0
1496	1497	0	8	0	0	0	0	0	0	0	0	0
1499	1501	0	12	0	5	0	0	1	3	0	0	0
1502	1503	0	0	0	3	0	0	0	0	0	0	0
	1504	0	0	0	3	0	0	0	0	2	0	0

Key *CW=coarsewares; MCW=medium-coarsewares; FW= finewares; UC= Late Bronze Age fabrics which cannot be further classified; u/s=unstratified.*

Table 8 Sherd counts for early first millennium BC pottery according to fabric types and site contexts: pottery from pits

	Fabrics										
	Contexts	CW	MCW	MCW	MCW	MCW	MCW	MCW	FW	FW	FW	UC
Pit	Fill	1 & 2	3	4	5	6	7	8	9	10	11	
510	509	25	0	0	0	0	0	0	0	0	6	0
803	804	0	0	0	0	0	0	0	1	0	0	0
817	818	0	0	0	0	0	0	0	0	0	0	0
1063	1047	2	0	0	0	0	0	0	0	0	0	0
1058	1059	0	0	0	2	0	1	0	0	0	0	2
1104	1102	0	6	266	2	0	0	0	48	0	0	315
1111	1112	0	0	0	0	0	0	0	0	1	0	0
1116	1115	0	0	0	0	0	1	0	0	25	0	1
1127	1128	11	1	6	0	0	0	0	0	1	0	1
1136	1110	28	3	8	0	0	0	0	0	0	0	0
	1200	34	0	0	0	0	0	2	0	0	0	0
1137	1113	242	175	64	0	165	0	0	15	11	5	0
1140	1141	4	4	0	17	0	0	0	2	1	0	34
	1162	19	0	0	0	0	0	0	0	0	1	0
	1176	14	0	0	0	0	0	0	0	0	3	0
	1177	19	0	0	0	0	0	0	0	0	0	0
	1187	0	0	0	1	0	0	1	0	0	0	0
1169	1170	1	0	0	0	0	0	0	0	0	0	0
1274	1273	0	0	0	4	0	0	0	0	0	0	0
1275	1242	32	0	0	0	0	1	0	0	0	0	0
1276	1202	3	16	0	0	0	0	0	2	0	0	0
	1240	3	0	0	0	0	0	0	0	0	0	0
	1241	1	6	0	0	0	0	0	2	0	0	0
	1261	7	8	0	0	0	0	0	1	0	1	18
	1263	0	6	0	0	0	0	0	0	0	0	0
	1264	7	0	0	0	0	0	0	0	0	0	0
	1265	0	9	3	0	0	0	0	0	0	0	0
1277	1234	1	0	0	4	0	0	0	0	1	0	0
1284	1235	18	33	8	5	0	0	0	0	3	1	0
	1237	3	0	0	0	0	0	0	0	0	0	0
1349	1350	0	0	0	0	0	1	0	0	0	0	0
1414	1415	2	7	0	0	0	0	0	0	0	0	0
1420	1421	0	1	0	0	0	1	0	0	0	0	0
1428	1429	0	0	0	1	0	0	0	0	0	0	0
1444	1445	0	0	0	1	0	0	0	0	0	0	0
1507	1508	0	2	0	0	0	0	0	0	0	0	0

Key *CW=coarsewares; MCW=medium-coarsewares; FW=finewares; UC=Late Bronze Age fabrics which cannot be further classified.*

Table 9 Sherd counts for early first millennium BC pottery according to fabric types and site contexts: pottery from postholes

			Fabrics									
	Context	CW	MCW	MCW	MCW	MCW	MCW	MCW	FW	FW	FW	UC
P/hole	Fill	1 & 2	3	4	5	6	7	8	9	10	11	
603	604	0	1	0	0	0	0	0	0	0	0	0
605	606	0	0	2	10	2	0	0	0	0	0	0
809	810	0	0	0	0	1	0	0	0	0	0	0
819	820	0	0	0	0	0	0	0	6	1	0	0
904	905	0	14	0	0	0	0	0	0	0	0	0
	914	0	53	0	0	0	0	0	21	0	0	0
	915	0	1	0	0	0	0	0	0	0	0	0
1020	1019	0	0	0	1	0	0	0	0	0	0	0
1028	1027	0	0	2	0	0	0	0	0	0	0	0
1042	1041	37	0	0	12	0	0	0	73	0	0	105
1067	1066	1	0	0	0	0	0	0	0	0	0	0
1178	1179	1	0	0	0	0	0	0	0	0	0	0
1207	1208	41	0	0	0	0	0	0	0	0	0	0
1220	1221	0	0	0	0	0	0	0	0	2	0	0
1255	1256	0	1	0	0	0	0	0	0	0	0	0
1442	1443	0	2	0	0	0	0	0	0	0	0	0

Key *CW=coarsewares; MCW=medium-coarsewares; FW=finewares; UC=Late Bronze Age fabrics which cannot be further classified.*

The pit complex pottery groups

The Ford Airfield inter-cutting pits are a distinctive type of feature complex which is recurrently associated with Late Bronze Age pottery on the West Sussex coastal plain. The Ford Airfield complex has a stratigraphic sequencing, with Pit 4 being the most recent and Pits 3 and 6 the oldest. The pottery from these pits, however, has no obvious internal chronology, having collectively a range of types commonly associated with earliest Late Bronze Age pottery (c. 10th-8th centuries cal BC). These forms include round-shouldered jars and bowls, often with flat-topped rims (e.g. Figs 11.4 and 12.10) or internally folded-over rims (e.g. Fig. 12.11). Decoration is virtually absence from these forms. A chronological oddity is the foot-ring base (Fig. 12.19) from Pit 4. This is a form associated with Early Iron Age pottery assemblages and perhaps is intrusive from later on-site activity.

The pit complex pottery suggests that the sequence of activity which the pits represent was relatively short in time, and that several of these pits were probably open at one time. Spread 1085 and Pit 4 (1113) and Post-hole 2 have sherds, for example, from the same or very similar pots (Figs. 12.17 and 14.42). This again suggests a concentrated phase of site clearing with several other features being open/active coeval with the pit complex. Both Pit 3 and Pit 4 are dominated by coarsewares and may have received direct deposition from a specific task area (relating to storage and cooking), rather from more general midden debris.

The pit complex pottery groups are detailed below in stratigraphic order of earliest to latest) (see also Fig. 7):

Pit 6 (1275): Context 1265 (12 sherds), Context 1242 (33 sherds including Fig. 11.2-4). Key pottery forms: necked round-shouldered jars with rounded or bevelled rims.

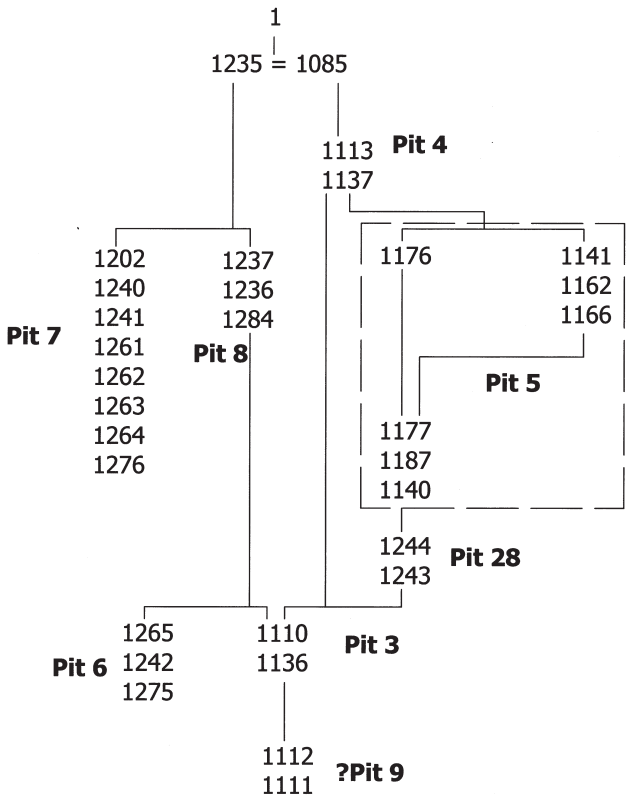
Pit 3 (1136): (Context 1110: 39 sherds, Figs 11.5-7, Context 1200: 36 sherds). Key pottery forms: straight-sided vessels with cabled rim tops.

Pit 5 (1140): Context 1141 (6 sherds); Context 1162 (20 sherds), Context 1176 (17 sherds, including Fig. 12.9-10), Context 1177: (19 sherds including Fig. 12.8). Key pottery forms: round-shouldered jars with up-turned rims.

Pit 7 (1276): Context 1202 (21 sherds), Context 1240 (3 sherds), Context 1241 (9 sherds), Context 1261 (35 sherds), Context 1262 (1 sherd), Context 1263 (6 sherds), Context 1264 (7 sherds). Key pottery forms: finger-grooved sherds; 1 sherd from shouldered bowl.

Pit 4: 1137: (Context 1113: 677 sherds including Fig. 12.11-18) This pottery group has an associated radiocarbon result of cal BC 1120-820 (BETA- 144446 2800 660 BP). Key pottery forms: necked, shouldered jars/bowls (Figs 12.11, 13, and 14) including one with a flattened cabled rim top (Fig. 12.16), a shouldered jar/bowl with out-turned rim (Fig. 12.17), convex jars (Fig. 12.18) and one foot-ring base (Fig. 12.19). The radiocarbon date (early Late Bronze Age) for this context is in line with its recovered pottery, with the exception of a foot-ring base in Fabric 9 (see above). Some Early Iron Age pottery forms occur on site (see Figs 17.52, 17.57 and 18.59) and the foot-ring probably 'belongs' with these and suggests a limited stratigraphic disturbance of the context. The overlying layer 1235/1085 has a coherent assemblage that would fit with a wholly Late Bronze Age dating.

Figure 7 Late Broze Age Pit Complex



Later/mixed? pottery groups from pits

These pit groups of pottery suggest a limited reuse of the site in the Early Iron Age. They include later diagnostic form types, but also include the continued presence of medium and coarseware Fabric Types characteristic of the Late Bronze Age assemblage as a whole. The dating of the later forms is discussed further in a later section of this pottery report.

Pit 1 (510): This pit has a single fill, Context 508 (31 sherds, Fig. 17.57. Key pottery forms: the one diagnostic form type (Fig. 17.57) is a fineware (Fabric Type 11), cordon-groove shoulder from a bowl with a flaring rim. This is a latest Late Bronze Age/Early Iron Age type. The 25 coarse ware body sherds are however in line with those from the early Late Bronze Age assemblage as a whole.

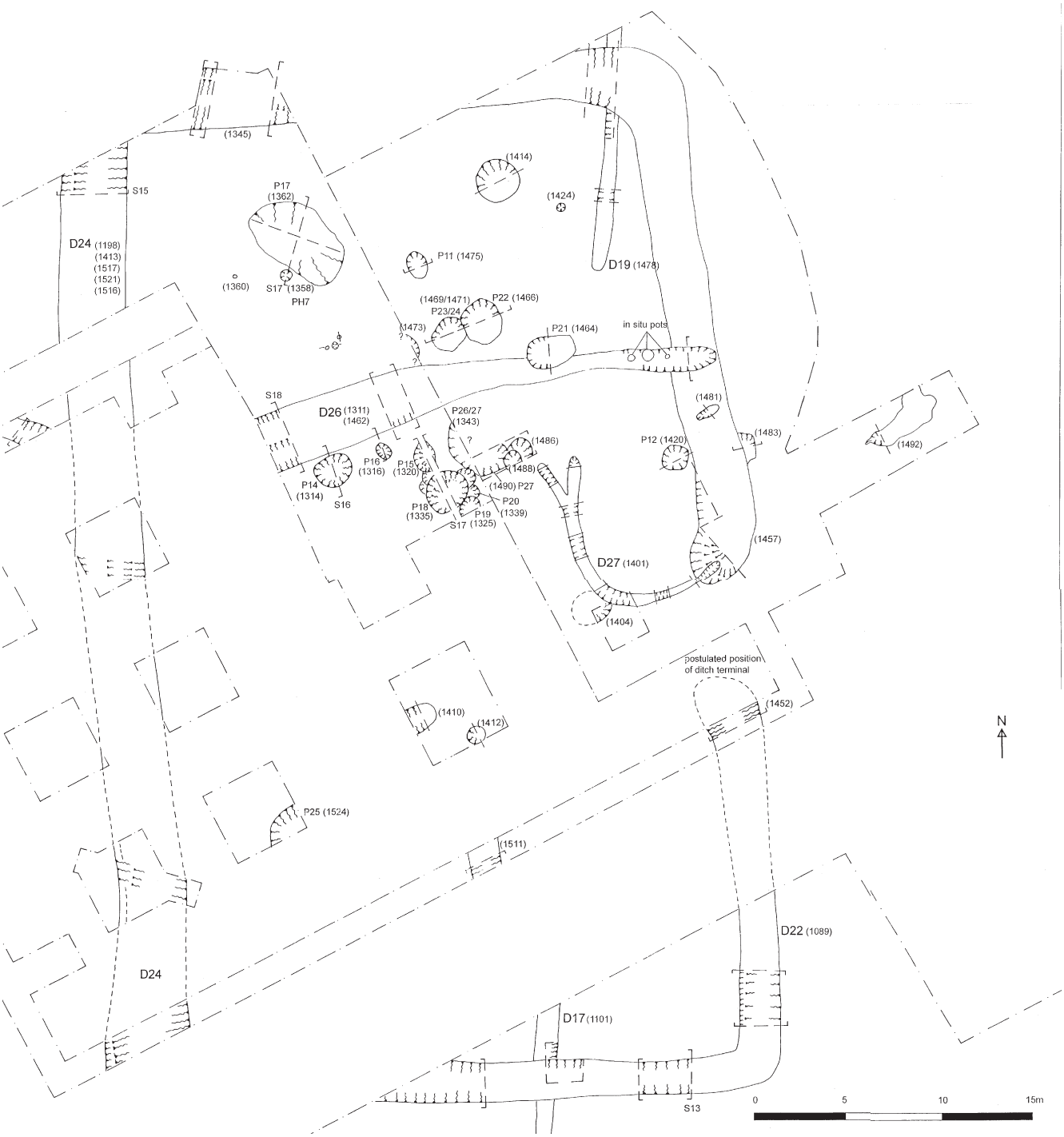
Pit 2 (1104): This pit has a single fill, Context 1102 (641 sherds, Fig. 17.58). Key pottery forms: a fineware shouldered jar with out-turned rim and foot-ring base (Fabric Type 9: Fig. 17.58), and parts of a medium coarseware (Fabric Type 4) shouldered jar with short flaring neck (not illustrated). These forms are later than the earliest Late Bronze Age forms, and the vessel with a foot-ring base suggests an Early Iron Age dating for the feature.

Pottery groups from postholes

Three of the postholes produced early first millennium BC pottery groups.

PH3 (1208: 41 sherds, Fig. 15.49-50). This posthole pottery group is the only one that has wholly early Late Bronze Age types. Key pottery forms: a round-shouldered jar with a flattened out-turned rim (Fig. 15.49) and a barrel-shaped jar with a flat-rounded rim (Fig. 15.50).

Figure 8 Enclosure 2



PH1 This posthole contains three fills (905: 14 sherds, 914: 74 sherds, Figs. 15.47-48, and 915:1 sherd). Key pottery forms: Shouldered bowl with flaring neck, rounded rim and flat-rounded out-curved base (Fig. 15.47) and a round-shouldered jar with flattened, cabled rim (Fig. 15.48). The first form is characteristic of the later Late Bronze Age/Early Iron Age, and suggests that the pottery group is contemporary with that from PH2 (1042).

PH2 (1041: 227 sherds). This posthole has a single fill which produced a very similar range of sherds to that from PH1. Key pottery forms: a large round-shouldered jar with flat-topped rim and a splayed base (Fig. 16.51); a shouldered bowl with flaring, rounded rim (Fig. 17.52); and a round-shouldered vessel with a flattened, pie-crusted rim (Fig. 17.53). These are all Late Bronze Age forms but the flaring rimed bowl (Fig. 17.52) is characteristic of the later Late Bronze Age/Early Iron Age.

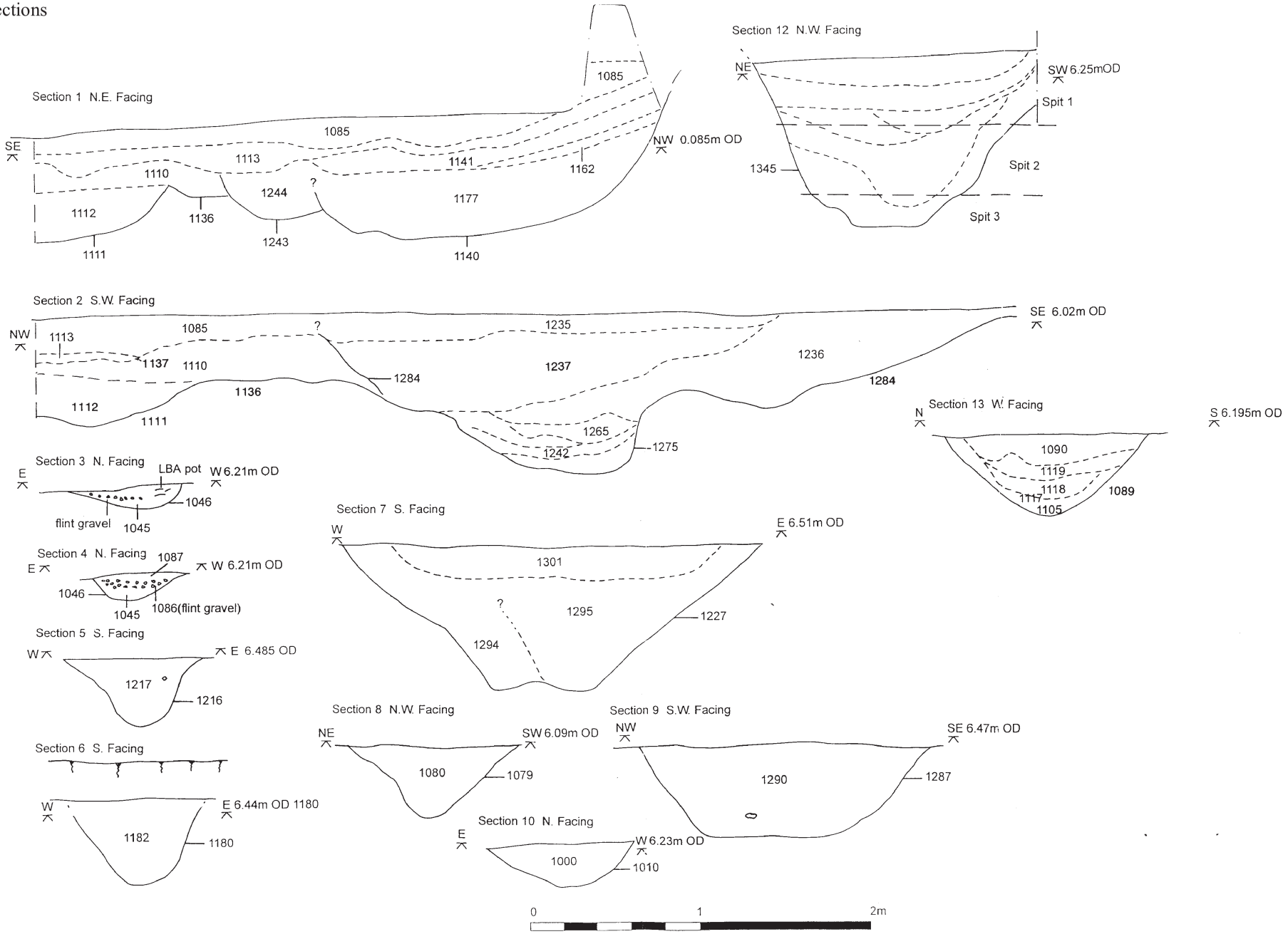
Pottery groups from the ditches

Nearly all of the ditches lacked early first millennium BC pottery groups. Ditch 1116 (T2) (1115: 27 sherds) solely contained Late Bronze Age body sherds and in sufficient quantities to suggest a similar dating for the ditch.

Pottery groups from layers

Layer 1085 /1235 (Figs 13.20-14.46) produced substantial quantities of Late Bronze Age pottery. This pottery group has a full range of fabric types, and lacks Fabric Type 9 which is associated with the Early Iron Age foot-ring bases (Table 6).

Figure 9 Sections



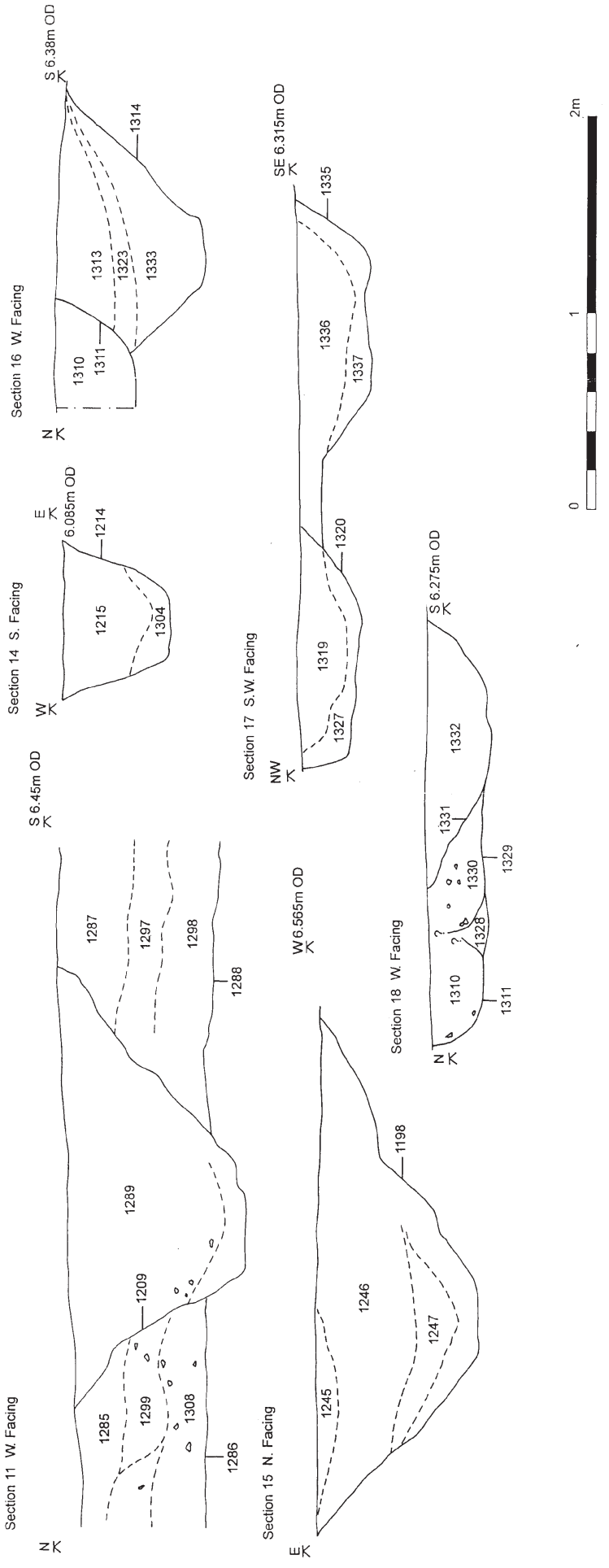


Figure 10 Sections

The context is stratigraphicaly secure in lacking post earlier first millennium BC finds. Context 1085 has an associated date of 1100-820 cal BC (BETA 144445 2820 660 BP). Key pottery forms: the forms from Layer 1085/1235 are in line with the later end of the associated radiocarbon dating. This is on the basis of the presence of forms with expanded rims (e.g. Fig. 13.20), flared-neck bowls and jars (e.g. Fig. 14.40), and occasionally decorated rims (e.g. Fig. 14.40) and shoulders (e.g. Fig. 13.33). Some forms relate to the same vessels (Fig. 12.17 and 14.42) and similar vessels (e.g. Fig. 13.20 and 13.27) from Pit 4, which has produced a similar radiocarbon date range.

Abraded and residual first millennium BC pottery

Many of the Ford Airfield features have abraded earliest first millennium BC sherds which have worked their way into features as a by-product of on site activities and /or post-abandonment site activities. These sherds belong to the original earliest first millennium BC assemblage and can be used to consider the range of vessel types that comprise the assemblage. They however must be used with caution as a tool for dating features, or for directly suggesting on-site locations for specific activities: earliest first millennium BC sherds are for instance residual in Late Iron Age features.

Residual pottery in pits

Some of the pits/postholes predominantly contain Late Iron Age pottery and/or later pottery, and here the Late Bronze Age pottery is clearly residual. The pits with residual pottery are as follows: PH6 (1020), 1063 (1047) and P12 (1420/1421). Other pits solely contained Late Bronze Age, but this is too small in quantity and too eroded to use them as a means of dating the pits. These are: 817 (818), 1058 (1059), 1169 (1170), 1274 (1273), 1277 (1234), 1349 (1350), 1414 (1415), 1444 (1445), and 1507 (1508).

Residual pottery in postholes

The following postholes contained pottery that was too minimal, or abraded pottery for secure dating of the feature: 603 (604), 809 (810), 819 (820), 1028 (1027), 1178 (1179), 1067 (1066), 1040 (1187), 1220 (1221), 1255 (1256), 1442 (1443).

Residual pottery in ditches

Amongst the Late Bronze Age pottery residual in later ditches, diagnostic form sherds include those from D16 (1004): Fig. 17.56, D6 (1226); Fig. 18.60-62 and D12 (1084): Fig. 18. 59. Diagnostic Late Bronze Age forms from D6 as a whole comprise rims from straight-sided and round-shouldered jars.

Pottery fabrics and their associated form types

Fabric range

The Ford Airfield assemblage has a wide variability in precise fabrics, suggesting small-scale, perhaps frequent production, rather than occasional larger scale production. For these reasons it was decided to group the fabrics into general fabric types, rather than describe individual fabrics that often related to individual pots. Fabric types were isolated on the basis of dominant inclusion types, the density and size of inclusions, and the firing characteristics and surface finishes. Eleven fabric types were thus defined. These can be grouped into coarsewares (2 fabric types, 27% of sherd numbers), medium-coarse wares (6 fabrics types, 35% of sherd numbers) and finewares (3 fabric types comprising 13% of sherd numbers) The greatest number of fabric types is in the medium-coarse ware category. A further 15% of the sherds were classifiable as Late Bronze Age sherds, but precise attributions to specific fabric types was impossible due to their small size and abraded state.

The collection was recorded using the pottery recording system recommended by the PCRG (1992). All sherds were assigned a fabric type after macroscopic examination and the use of x10 magnification. All sherds were counted and weighed to the nearest whole gramme.

Coarsewares

Some of the coarsest and thickest sherds (Fabric Type 1) are reminiscent of Middle Bronze Age fabrics. Overall, the indications are that West Sussex has coarser Late Bronze Age fabrics than East Sussex. Tables 6-10 collate Fabrics Types 1 and 2 together, since they are somewhat overlapping and Fabric Type 1 has only one diagnostic form sherd (Fig. 12.10). The average weight per sherd is high (about 8 gms, Table 10) reflecting the size of the flint inclusions and the thickness of vessel walls in these fabrics.

Diagnostic forms

Barrel-shaped jars (Fig. 15.50 and 18.60), together with round-shouldered vessels, variously with rounded (Fig. 13.21 and 13.27), bevelled (Fig. 11.3) and flat-topped internal and externally expanded rims (Fig. 13.20 and 13.22-24) characterize the coarsewares. Some of these rims have cabled tops. There is occasional fingertip decoration on the shoulder. Evidence of building and finishing technology comprises finger-furrowing or finger-smearing (Fig. 13.20, 13.31), finger-pressing (Fig. 13.26) and finger-pinching (Fig. 13.30) including out-turned finger-pinched bases (Fig. 11.2, 11.8, and 14.36-37) and occasional heavily gritted bases (Fig. 14.34). Decoration is rare, but includes a fingertip-impressed shoulder (Fig. 13.33).

Fabric types

Fabric Type 1: very coarse flint-tempered

Very coarse, relatively abundant (40% density), poorly sorted, grey and white calcined pebble- and granule-sized calcined flint tempering measuring up to 8mm across. Surfaces and core are oxidized an orange/buff colour. Sherd cross-sections measure up to 13mm thick.

Fabric Type 2: coarse flint-tempered

Very common (30% density), poorly sorted coarse grey and white pebble and granule-sized calcined flint-tempering measuring up to 6mm across. Exterior surfaces are an oxidized buff colour, and have wiped finishes. Interior surfaces and cores are generally unoxidized a dark-brown colour. Occasional grog specks (2-3 mm) are sometimes visible on the surface but are difficult to quantify. Sherd cross-sections measure up to 12mm thick.

Medium-coarsewares

Diagnostic forms

Shouldered bowls and jars, sometimes with short flaring necks (Fig. 11.4, 14.42, 14.44, and 14.46), or longer flaring necks (Fig. 14.47) are common. Rims are variously flat (Fig. 12.14), out-turned or rounded, or expanded (Figs. 12.11,

12.13 and 12.16). Some of the rims have fingertip, cable-effect decoration (Fig. 11.5, 11.7, 12.16, 14.40, and 17.53). Convex jars are also present (Fig. 12.18, 17.54, and 17.55). Bases are often finger-pinched and expanded (Fig. 12.15), and sometimes have heavily gritted bases (Fig. 12.12). Average sherd weights are variable (Table 10) with Fabrics Types 3 and 4 being comparable to Fabrics Types 1 and 2. The fabrics with quartz sand inclusions are much more friable (Table 10, Fabrics Types 5-7) and of smaller average size (1-4 gms).

Fabric Types

Fabric Type 3: abundant, medium flint-tempered

Variant 3a: Well-sorted, abundant (40% density) granule- and very coarse sand-sized flint tempering comprising fire-cracked white and occasionally grey coloured grits measuring up to 4mm across. There are rare irregular, red iron-oxide inclusions measuring up to 4mm across. Surfaces and cores are oxidized to an orange colour. Sherd cross-sections measure up to 8mm thick.

Variant 3b:This fabric is the same as variant 3a with the addition of rare to sparse granule-sized (2mm) grog inclusions (2% to 3% density: only apparent on the surface), and the presence of an exterior surface coating. This coating is patchy and orange in colour. It suggests a slip, or iron-rich powder coating which has been burnished onto the leather-hard pottery prior to firing.

Variant 3c: Well-sorted abundant medium-sized flint tempering comprising fire-cracked white-coloured grits measuring up to 4mm across (as variant 3a). Surfaces and cores are an unoxidized dark brown to black in colour. Sherd cross sections measure up to 9mm thick.

Fabric Type 4: sparse, medium flint-tempered with fired-out vegetation

Medium to sparse (7% to 10% density) of granule-sized (up to 4mm) grey and white calcined flint tempering, together with occasional fired out vegetation (up to 5mm long). Rare (2% density) mica flecks are present, and the surfaces sometimes have a silky appearance. There are occasional wiped surfaces. Surfaces are generally oxidized buff coloured, and cores are an unoxidized dark brown/black colour. Occasional grog specks (2-3mm) are sometimes visible on the surfaces, but are difficult to quantify. Sherd cross-sections measure up to 9mm thick.

Fabric Type 5: fine quartz sand and medium flint-tempered

Sparse (7% density) small pebble and granule sized calcined flint tempering (up to 5mm), together with moderate quantities (15% density) of very fine (0.25mm) quartz sand. Interior and exterior surfaces are oxidized and coloured buff. Cores are unoxidized and coloured dark brown to black. Sherd cross-sections average 8mm thick.

Table 10 Average sherd weight according to fabric type for the first millennium BC assemblage

Fabrics	Wgt	No.	ASW
1 / 2	10492	1233	8.5
3	3590	433	8.3
4	3695	398	9.3
5	521	123	4.2
6	195	163	1.2
7	102	25	4.1
8	26	9	2.9
9	1283	201	6.4
10	862	198	4.4
11	139	24	5.8
UC	470	509	0.9
Totals	21375	3316	6.4

Key *Wgt= weight in grams; No.= number of sherds; ASW= average sherd weight*

Fabric Type 6: medium quartz sand with some fine flint-temper

Medium-coarse (0.5mm) quartz sand, and occasional (5% density) coarse sand-sized (1mm) flint tempering. The surfaces are oxidized dark red to orange in colour, and the cores are dark brown to black in colour and unoxidized. Sherd cross-sections average 7mm thick.

Fabric Type 7: abundant medium to coarse quartz sand with sparse fine flint temper

Abundant (50% density), medium to coarse (0.25 to 1.0 mm) quartz sand. Sparse (3% density) very coarse sand-sized and granule-sized (2 to 3mm) calcined flint tempering of white, and grey, colours. The exterior, and sometimes the interior surfaces are usually oxidized a buff to orange colour. The core is dark brown in colour and unoxidized. External surfaces have traces of smoothing.

Fabric Type 8: fired out chaff/organic inclusions

Moderately abundant flat (5mm long) voids where chaff/organic temper has been fired out. The fabric is wholly coloured dark brown and unoxidized throughout.

Finewares

These wares have a relatively high average weight per sherd (Table 10, 4-6gms) given that they come from thinner-walled vessels and that their quartz sand inclusion increases their friability. This suggests that they were probably cleared/deposited into features more rapidly that other vessels. Fabric Type 9 is associated with Early Iron Age forms.

Diagnostic forms

The finewares are associated with thin-walled shouldered bowls, with flaring necks and rounded rims (e.g. Fig. 12.9, 14.43 and 17.52), together with bipartite bowls with rounded (Fig. 13.28), or up-turned rims (Fig. 17.59, and 18.61) and in some instances (Fabric 9) foot-ring bases (Fig. 12.19, and 17.58). Fabric Type 11 has one diagnostic form association of a shouldered bowl with incised-cordon groove on the shoulder (Fig. 17.57). The fineware Fabric Types occur associated with Late Bronze Age types but Fabric Types 9 and 11 are more specifically associated with Early Iron Age forms notably the foot-ring bases, and the cordon-groove shoulder (Tables 6-9, and see above).

Fabric Types

Fabric Type 9: abundant fine flint-tempered (10)

Well-sorted, moderately abundant (40% density), very coarse sand-sized (1mm) flint tempering. The core is coloured dark-brown and is unoxidized. The surfaces are patchily oxidized and coloured buff to orange. The outer surfaces have some signs of burnishing, and form a sharply defined outer layer, which includes rare to sparse (2% to 3% density) iron oxides. Sherd cross-sections average 9mm thick.

Fabric Type 10: common medium-fine flint tempering (9)

Common (20% density), well-sorted very coarse sand-sized (1.5mm) white flint temper (NB fire-cracking not clearly evident). The surfaces and cores are unoxidized dark brown to black in colour. The surfaces are smoothed. Occasional grog specks are sometimes visible on the surfaces, but are difficult to quantify. Sherd cross-sections average 9mm thick.

Fabric Type 11: very fine quartz sand inclusions (8)

The fabric is characterized by moderately abundant (45% density), very fine quartz sand inclusions (0.25mm). The surfaces are lightly burnished and black to dark grey in colour, with an oxidized pink/red inner margin immediately below the exterior surface. Cores are coloured dark brown/black and are unoxidized. Sherd cross-sections average 8mm thick.

Catalogue of illustrated early first millennium BC pottery

Figures 11-18

1. Context 1046 (Trackway 2). Finger-pinched, flared neck with flat, expanded rim. Yellow-red interior and exterior surfaces; dark grey core. Burnt. Fabric Type 9.
2. Context 1242 (Pit 6). Finger-pinched, flat, straight-sided base. Possible finger-smeared, red exterior surfaces and abraded, black interior surfaces; red core. Fabric Type 2.
3. Context 1242 (Pit 6). Angular-shouldered jar. Slightly finger-pinched, upright to slightly flared neck with flat, internally beveled rim. Yellow grey surfaces and core. Red shadow over parts of breaks and surfaces indicate burning. Fabric Type 2.
4. Context 1242 (Pit 6). Round-shouldered jar. Slightly finger-pinched, flared neck with flat to rounded rim. Yellow-red interior and exterior surfaces; yellow-red break; grey-brown core. Burnt. Fabric Type 3.
5. Context 1110 (Pit 3). Flat, in-turned, externally expanded, cabled rim. Finger-smeared, dark-brown exterior and brown interior surfaces. Surface colours continue into core. Fabric Type 4.
6. Context 1110 (Pit 3). Flat, expanded base. Yellow-red to brown exterior and dark brown interior surfaces; dark grey core. Fabric Type 4.
7. Context 1110 (Pit 3). Flat, possibly cabled rim. Grey to red-grey exterior surface colour, and grey-coloured interior surface and core. Fabric Type 3.
8. Context 1177 (Pit 5). Possible finger-pinched foot-ring (identification uncertain owing to abrasion). Yellow-red exterior and interior surfaces; yellow-red core. Fabric Type 2.
9. Context 1176 (Pit 5). Possible tri-partite bowl. Flared neck with rounded rim. Possibly burnished, yellow-brown exterior and interior surfaces; yellow-brown core. Fabric Type 11.
10. Context 1176 (Pit 5). Round shouldered jar. Slightly flaring neck with flat rim. Yellow-red to buff exterior and interior surfaces; yellow-red to buff coloured core. Fabric Type 1 (with occasional grog).
11. Context 1113 (Pit 4). Possible shouldered jar. Finger-pinched upper shoulder and upright neck with flat, possibly folded, internally expanded rim. Yellow-red coloured exterior and interior surfaces and core. Fabric Type 3.
12. Context 1113 (Pit 4). Flat, expanded, heavily gritted, base. Slightly yellow-red surfaces and core. Fabric Type 3.
13. Context 1113 (Pit 4). Flat, slightly externally expanded rim. Yellow-red interior and exterior surfaces; yellow-red break; grey-brown core. Burnt. Fabric Type 3.
14. Context 1113 (Pit 4). Slightly flared neck with flat rim. Finger-smeared, dark grey exterior and interior surfaces; dark grey core. Fabric Type 3.
15. Context 1113 (Pit 4). Finger-pinched, slightly expanded base. Yellow-red exterior surface; dark grey, finger-smeared interior surface; dark grey core. Fabric Type 3.
16. Context 1113 (Pit 4). Finger-pinched, flared neck with flat, deeply cabled, internally and externally expanded ('hammer-head') rim. Slightly yellow-red exterior and interior surfaces; slightly yellow-red core. Fabric Type 3.
17. Context 1113 (Pit 4). Shouldered-jar. Flared neck with slightly flattened rim. Smooth yellow-red exterior surface; grey-brown interior surface. Surface colours continue into core. Fabric Type 4 (with some grog). Does not conjoin but is probably the same vessel as illustration 42, Context 1085. Possibly the same vessel as illustration 41.
18. Context 1113 (Pit 4). Convex jar. Internally beveled (hooked) rim and flat, out-curving base. Red to slightly yellow-red exterior surfaces; dark grey to dark brown, finger-smeared, interior surfaces; dark grey core. Rim burnt. Fabric Type 3.
19. Context 1113 (Pit 4). Foot-ring base. Burnished, grey-brown exterior and slightly red-brown interior surfaces; grey core. Fabric Type 9.
20. Context 1085. Shouldered jar. Internally finger-furrowed shoulder with flat, internally expanded rim. Yellow-red exterior surface; grey brown interior surface. Surface colours continue into core. Fabric Type 2.
21. Context 1085. Round-shouldered jar. Slightly flared, angular, fingered neck with flat to rounded rim. Yellow-red exterior surfaces; buff interior surfaces and core. Fabric Type 2 (with some grog).
22. Context 1085. Round-shouldered jar. Finger-pinched, deeply in-curved neck with flat, externally and internally expanded (hammer-head) rim. Finger-smeared, dark brown to yellow-red exterior surface; finger-smeared, grey-brown to buff interior surfaces; dark grey core. Fabric Type 2.
23. Context 1085. Slightly flared neck with flat, internally expanded rim. Slightly yellow-red exterior surface; finger-smeared, yellow-red interior surface; yellow-red core. Fabric Type 2.
24. Context 1085. Finger-pinched, squared, slightly internally expanded rim. Red exterior surface; buff interior surface. Surface colours continue into the core. Fabric Type 2.
25. Context 1085. Flat rim. Yellow-red exterior surface; dark grey interior surface and core. Fabric Type 2.
26. Context 1085 Angular shouldered bowl or jar. Finger-smeared and internally impressed shoulder with sharply in-curved neck. Dark grey exterior and interior surfaces; dark grey core. Fabric Type 2.
27. Context 1085. Rounded to slightly flattened rim. Dark grey to dark brown exterior surface and core; finger-smeared dark grey to dark brown interior surface. Fabric Type 2.
28. Context 1085. Possible bowl. Rounded rim with slight internal bevel. Buff exterior surface; roughly burnished, dark grey interior surface. Fabric Type 10.
29. Context 1085. Finger-pinched cordon. Finger-smeared, dark brown interior surface; dark grey core. Red to slightly yellow-red exterior surface and broken edges indicates burning. Fabric Type 2.
30. Context 1085. Flat, finger-pinched, very slightly externally expanded rim. Red exterior surfaces; yellow-red interior surfaces. Surface colours continue into core: possibly burnt. Fabric Type 2.

31. Context 1085. Curved, lightly finger-impressed, body sherd. Red to buff exterior surface; finger-smeared, dark grey interior surface; dark grey core. Fabric Type 2. Resembles decoration on No. 51.

32. Context 1085. Flat rim. Finger-smeared dark grey to dark brown surfaces; dark grey core. Fabric Type 2.

33. Context 1085. Fingertip-impressed shoulder with sharply in-curved neck. Finger-smeared, dark brown surfaces; dark grey core. Buff patch on outer surface and broken edge indicates burning. Fabric Type 2.

34. Context 1085. Flat, expanded, heavily gritted, base. Slightly yellow-red exterior surface and core. No surviving interior surface. Fabric Type 2.

35. Context 1085. Flat, straight-sided, heavily gritted base. Dark brown exterior surface; dark grey interior surface and core. Fabric Type 2.

36. Context 1085. Flat, slightly expanded base. Dark buff to yellow-red exterior surface; yellow-red interior surface and core. Fabric Type 2.

37. Context 1085. Flat, slightly expanded base. Yellow red surfaces and core. Fabric Type 2.

38. Context 1085. Flat, out-curved base with finger impression at base of wall. Yellow-red exterior surface; dark brown interior surface and core. Fabric Type 2 (with some grog).

39. Context 1085. Flat, out-curved base. Buff surfaces; dark grey core. Fabric Type 2.

40. Context 1085. Round-shouldered jar. Flared neck with flat, cabled rim. Possibly burnished, yellow-red to yellow-brown exterior surface; yellow-brown interior surface; grey-brown core. Fabric Type 4 (with some grog).

41. Context 1085. Round-shouldered jar. Flared neck with flat, externally beveled, rim. Smooth buff to yellow-red exterior surface; finger-smeared buff to dark brown interior surface. Buff core. Red patch on interior surface and broken edge indicates burning. Fabric Type 4 (some grog). Possibly same vessel as Nos. 17 and 42.

42. Context 1085. Shouldered-jar. Flared neck with slightly flattened rim. Roughly burnished yellow-red exterior surface; grey-brown– dark brown interior surface. Surface colours continue into core. Fabric Type 4 (with some grog). Does not conjoin but probably the same vessel as No. 17, context 1113. Possibly the same vessel as no. 41.

43. Context 1085. Flared neck with rounded rim. Burnished, dark grey interior and exterior surfaces; buff core. Fabric Type 10 (with some grog).

44. Context 1085. Round-shouldered jar. Slightly flared neck with flat, burnished, very slightly expanded rim. Possibly burnished, yellow red to buff exterior surface; dark grey interior surface and core. Fabric Type 3.

45. Context 1235. Flat, out-curving base. Burnished, slightly yellow-red exterior and interior surfaces; slightly yellow-red breaks; grey core. Burnt. Fabric Type 4 (with some grog).

46. Context 1235. Slightly flared neck with flat rim. Finger smeared, yellow-red to buff exterior surface; yellow-red to buff interior surface and core. Fabric Type 4.

47. Context 914 (PH1). Narrow, round-shouldered bowl. Flared neck with rounded rim and flat to rounded, out-curved base. Burnished yellow-red to buff un-abraded exterior and interior surfaces. Dark grey weathered surfaces and core. Fabric Type 3.

48. Context 914 (PH1). Round shouldered jar. Internally fingered, slightly flared neck with flat, internally and externally expanded ('hammer-head'), cabled rim. Buff to yellow-red exterior surface; light, slightly yellow-grey, interior surface and a grey core. Fabric Type 9. Different fabric but resembles vessel No. 49, context 1208.

49. Context 1208 (PH3). Round shouldered jar. Finger-pinched shoulder and slightly flared neck with flat, cabled rim. Yellow red exterior surfaces; yellow red breaks; dark grey core. Burnt. Fabric Type 2. Different fabric but resembles vessel No. 48, context 914.

50. Context 1208 (PH3). Possible barrel-shaped jar. Neck with flat to rounded rim. Yellow-red to buff surfaces; dark grey core. Fabric Type 2.

51. Context 1041 (PH2). Shouldered jar. Lightly finger-impressed shoulder, finger-pinched, upright neck, and expanded base with finger pinched wall. Red surfaces and breaks; grey core (base); yellow-red to buff surfaces and breaks; grey core (neck and shoulder). Burnt. Fabric Type 2.

52. Context 1041 (PH2). Round-shouldered bowl. Internally fingered shoulder, flared neck with rounded rim and flat, out-curved base. Burnished, buff to dark grey exterior surface; buff to dark grey interior surface. Dark grey core. Probably burnt. Fabric Type 9.

53. Context 1041 (PH2). Flat, externally expanded cabled rim. Finger-smeared dark grey-brown exterior and interior surfaces. Brown core. Fabric Type 5.

54. Context 117 (T2). Possible convex jar. Rounded, slightly out-turned, rim with knob. Dark grey exterior surface and core; dark grey-brown interior surface. Fabric Type 4.

55. Context 405 (D1). Possible convex or barrel shaped jar. Flat to rounded rim. Finger-smeared, dark grey-brown surfaces; dark grey core. Fabric Type 4.

56. Context 1004 (D16). Slightly flared neck with rounded rim. Burnished black exterior and dark red-brown interior surfaces. Surface colours continue into core. Fabric Type 7.

57. Context 509 (P13). Possible groove-cordoned bowl. Burnished, dark grey-brown surfaces; brown-grey core. Red-brown patch on interior surface and break indicates burning. Fabric Type 11.

58. Context 1102 (Pit 2). Round shouldered bowl. Flared neck with rounded rim, an internally fingered shoulder, and a foot-ring base. Burnished, dark grey surfaces; dark grey core. Fabric Type 9.

59. Context 1084 (Late Iron Age/Early Roman pit). Flat to rounded, slightly out-turned, rim. Burnished, dark grey exterior surface; dark red-brown interior surface; yellow-brown to red-brown core. Fabric Type 10.

60. Context 1126 (Late Iron Age/Early Roman deposit). Possible barrel-shaped jar. Neck with flat rim. Finger-smeared dark grey-brown exterior and grey-brown interior surfaces; mottled brown core. Fabric Type 2.

61. Context 1126 (Late Iron Age/Early Roman deposit). Flat to rounded, slightly externally expanded, rim. Possibly burnished, dark grey brown exterior and dark grey interior surfaces; dark grey core. Fabric Type 10.

62. Context 1126 (Late Iron Age/Early Roman deposit). Flat rim. Dark grey brown surfaces and core. Fabric Type 2.

Figure 11 Early First Millennium Pottery

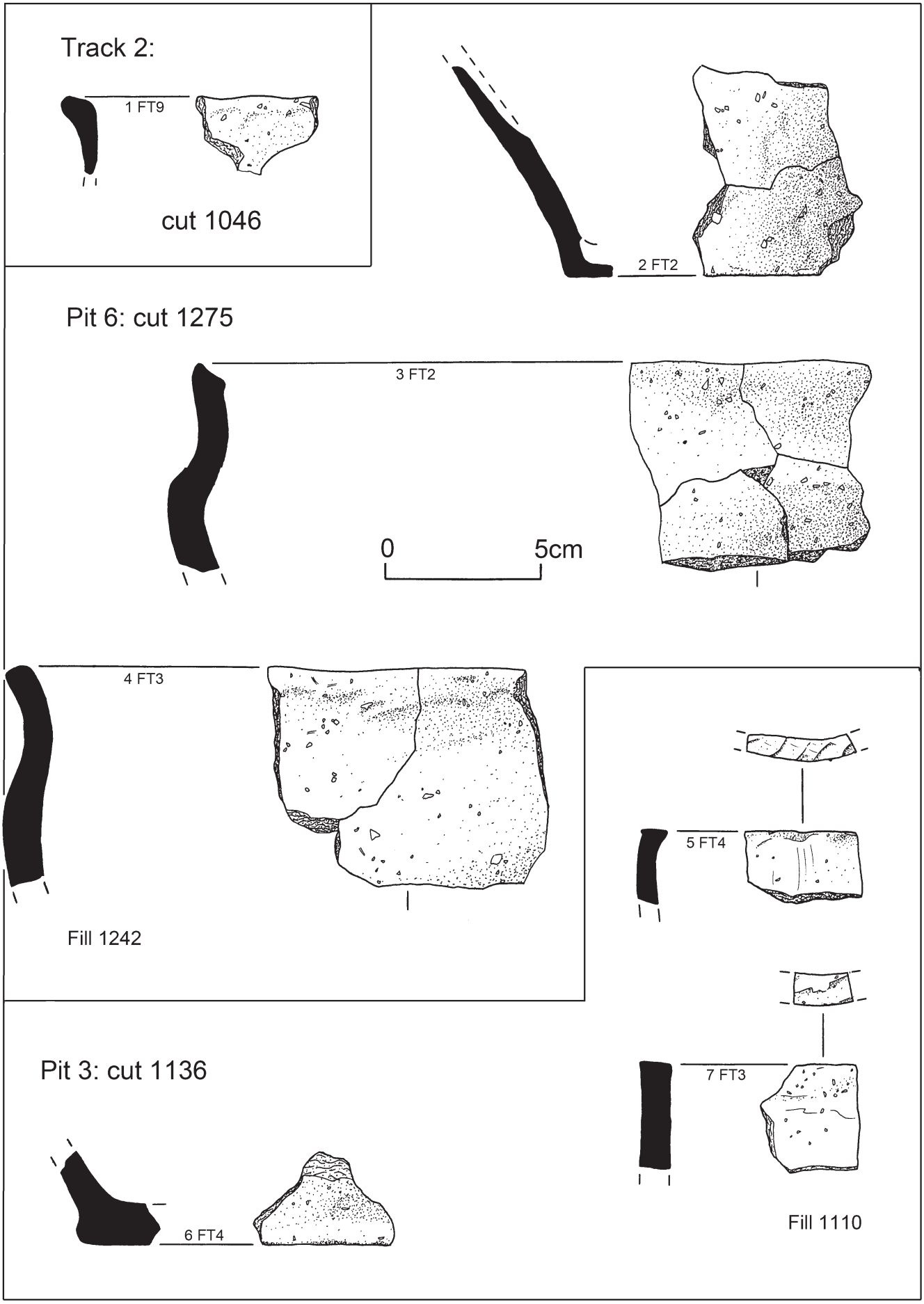


Figure 12 Early First Millennium Pottery

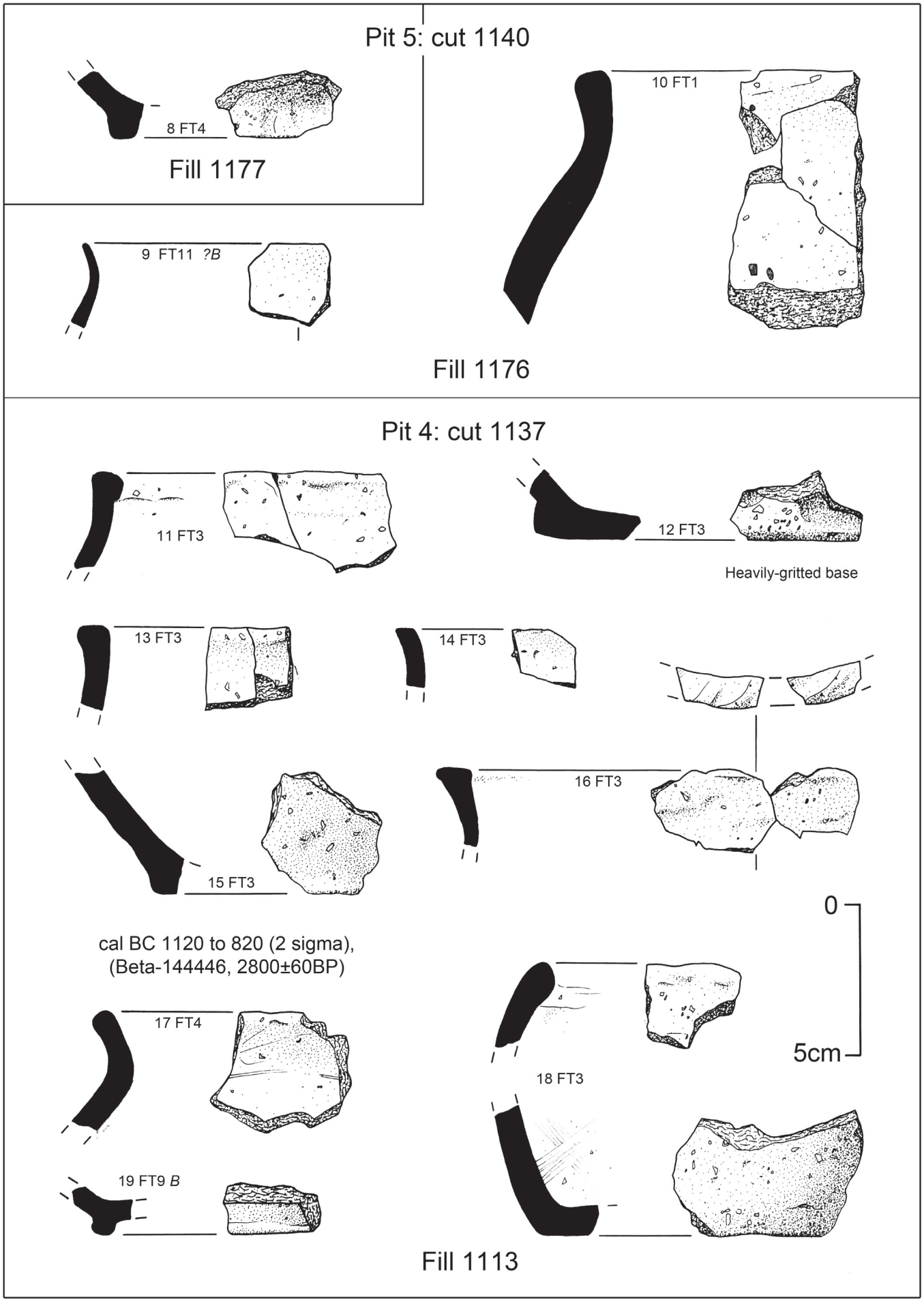


Figure 13 Early First Millennium Pottery

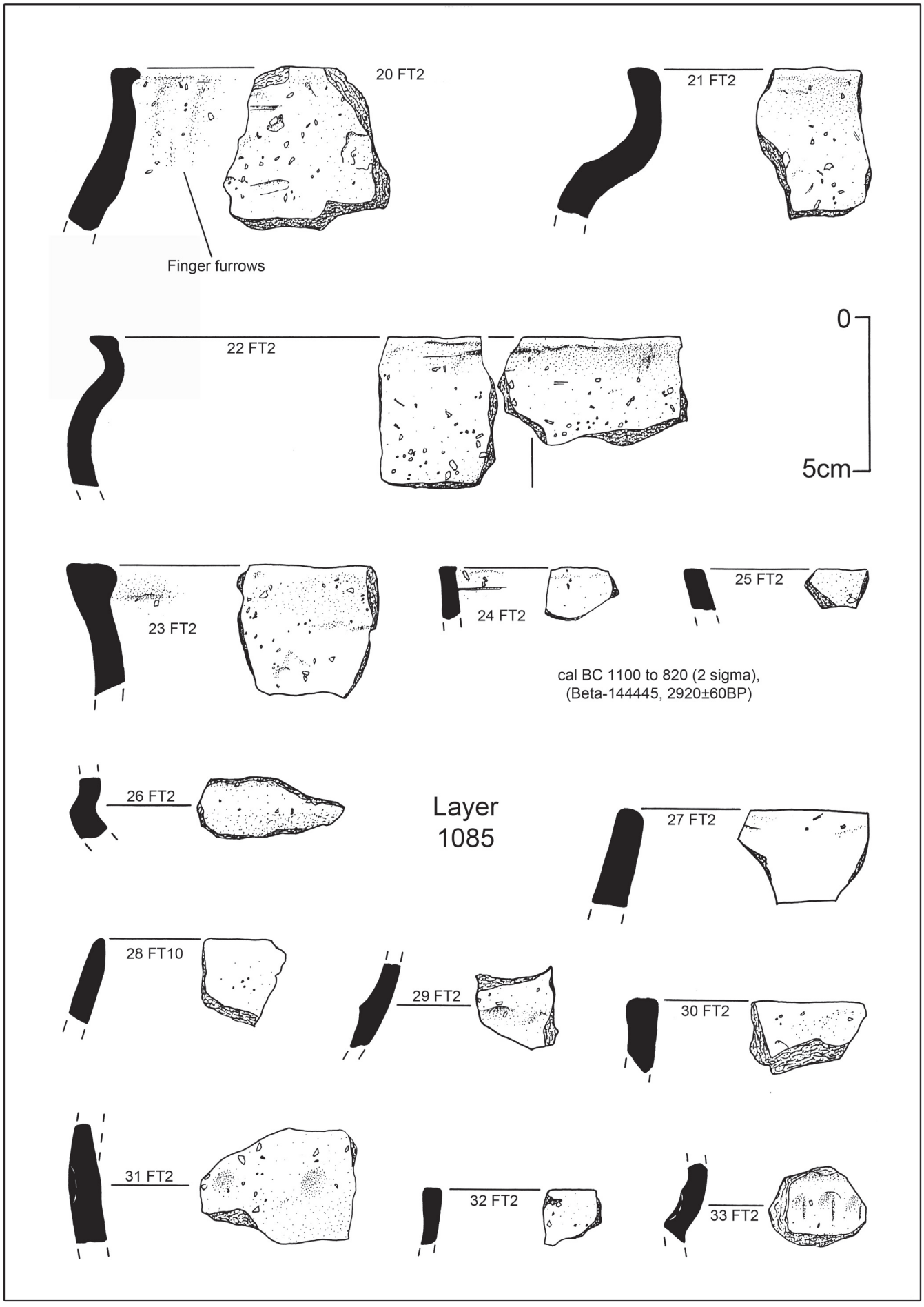


Figure 14 Early First Millennium Pottery

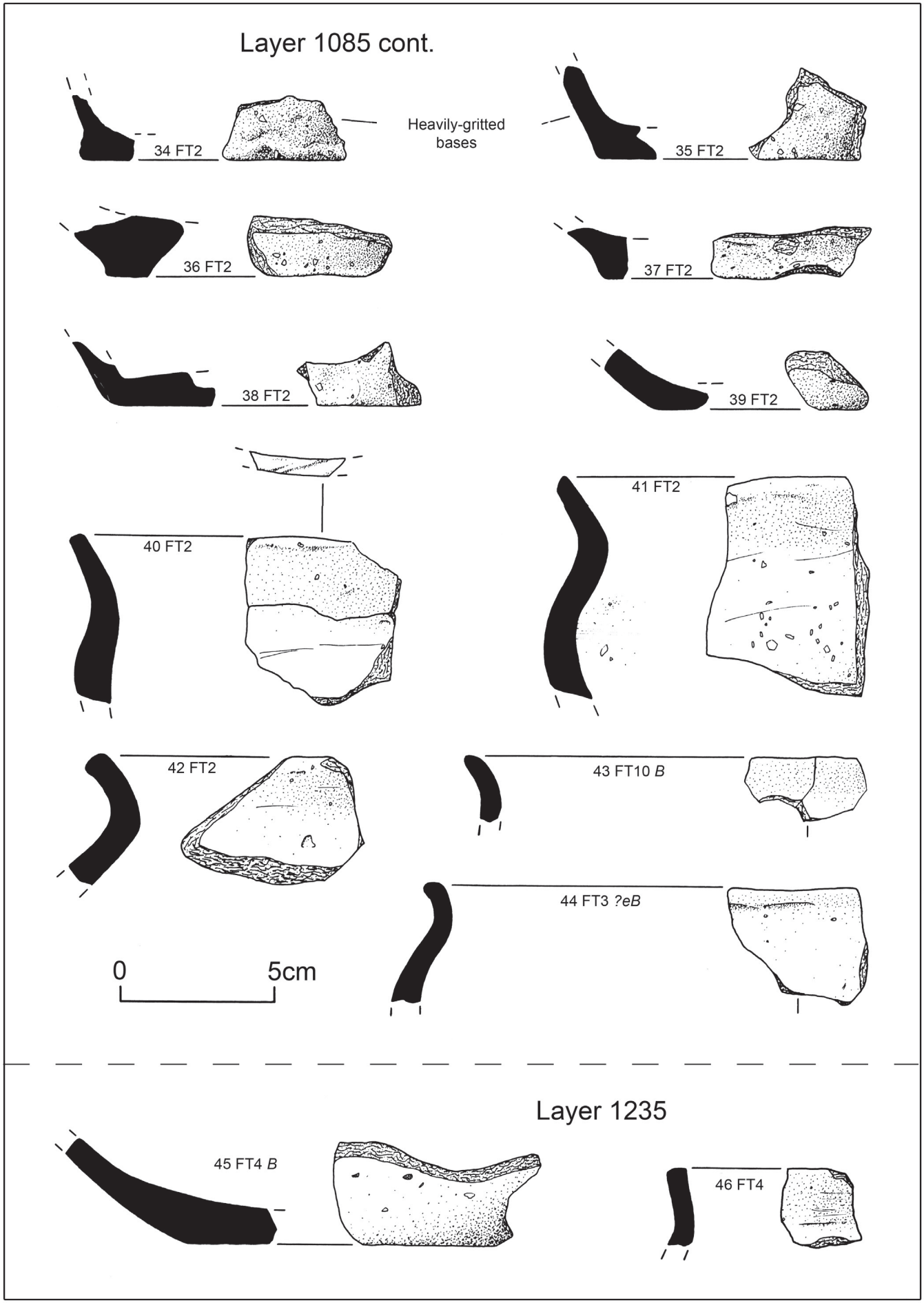


Figure 15 Early First Millennium Pottery

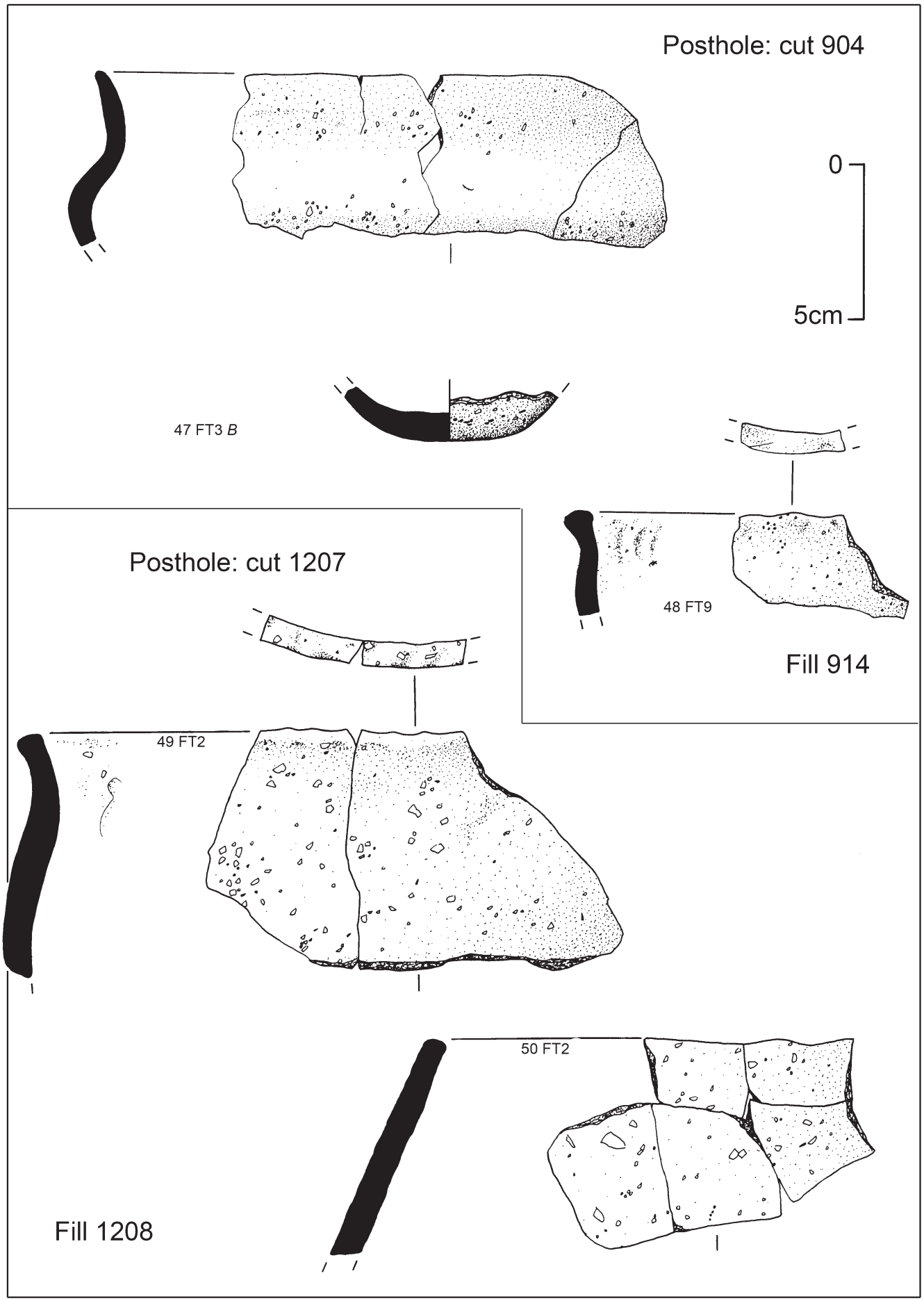


Figure 16 Early First Millennium Pottery

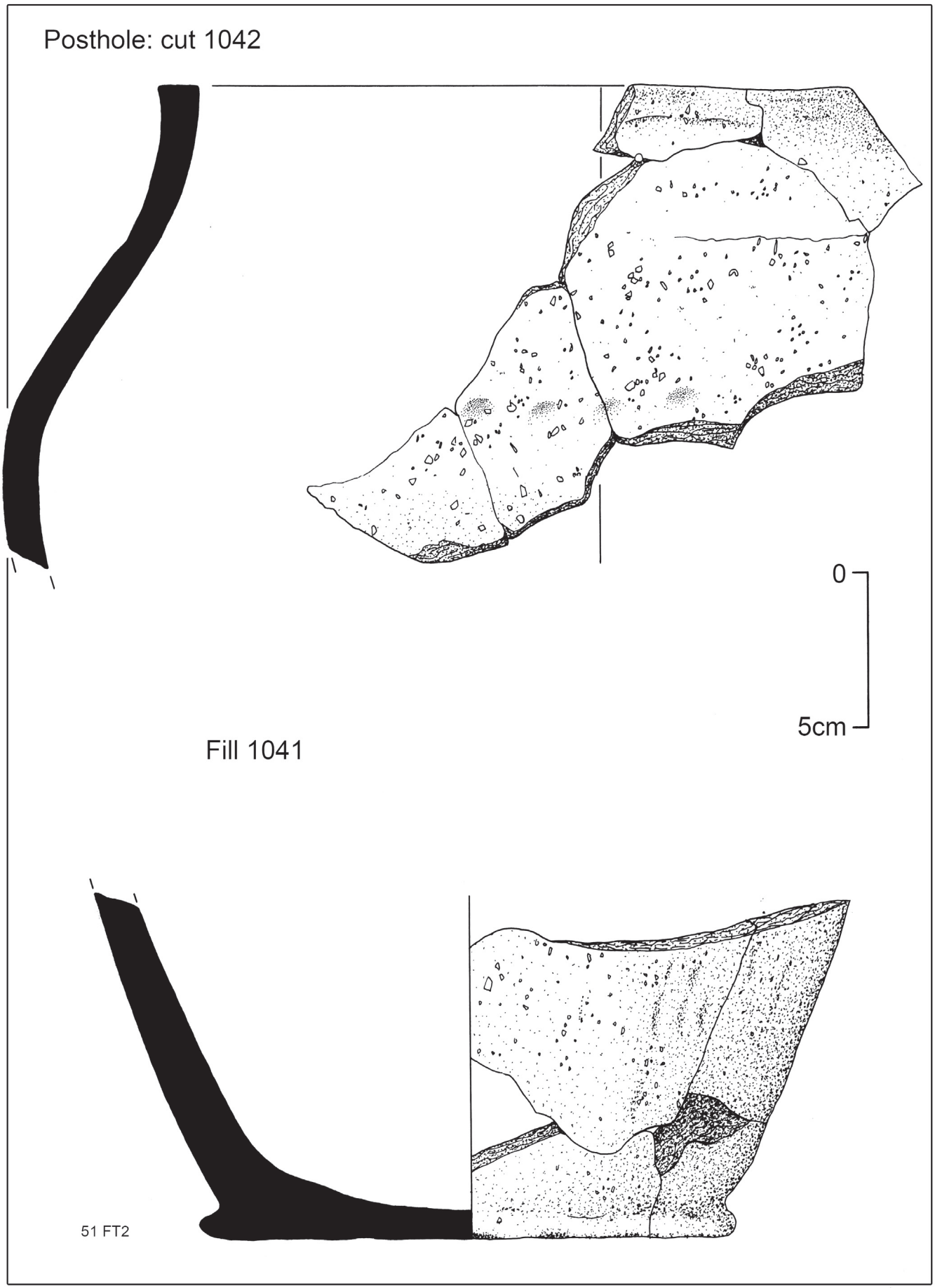


Figure 17 Early First Millennium Pottery

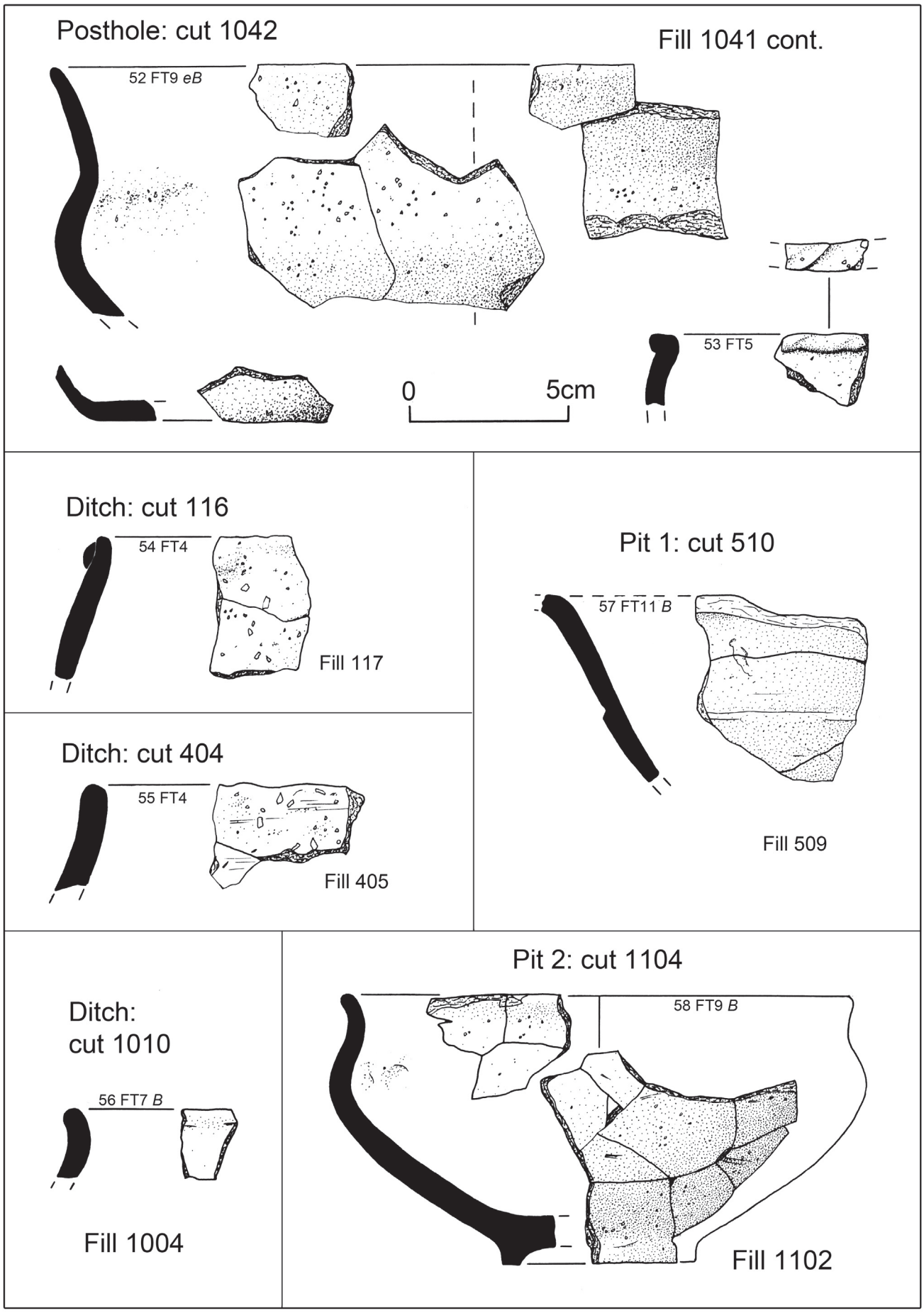
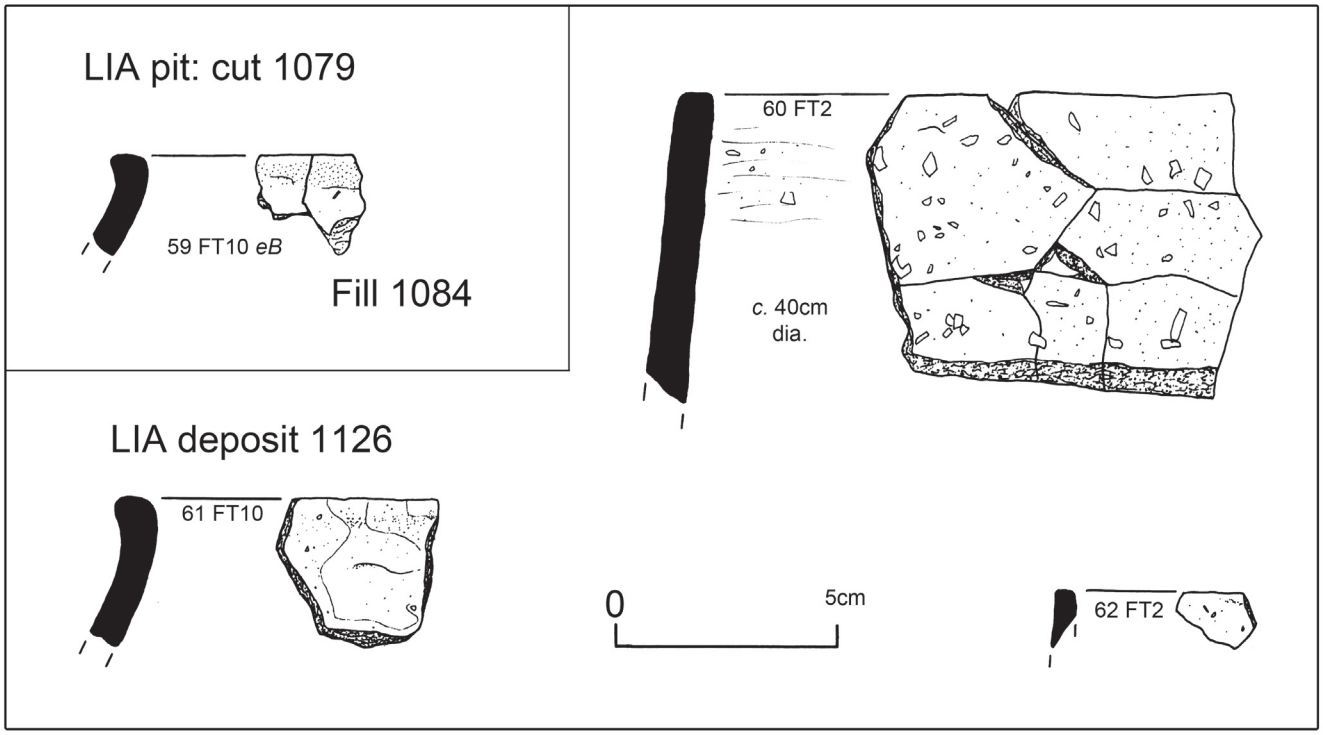


Figure 18 Early First Millennium Pottery



The range of diagnostic types and their chronology

Functional range

The Ford Airfield early first millennium BC assemblage is associated with an extensive range of Late Bronze Age pottery types, (as first defined by Barrett 1980 for Lowland England), including barrel-shaped and convex jars, and shouldered bowls and jars. Of note are the large size of several of the jars and bowls (e.g. Fig. 11.3 and 16.51). Other well-documented Late Bronze Age assemblages from Lowland Britain which include this large-size range include those from Selsey West Beach (Seager Thomas 1998) on the West Sussex coastal plain, and Runnymede, Surrey (Needham and Spence 1996). Vessels of this size must be for storage, and their presence suggests that a full range of on-site domestic activities took place. Indisputable evidence for drinking vessels (hemispherical bowls and cups), as noted locally at Yapton and Selsey West Beach, and further east at the pre-hillfort enclosure of Thundersbarrow Hill (Hamilton 1993) is absent from the Ford Airfield assemblage. Possible examples do however occur in Context 1350 (too fragmentary for illustration). Ford Airfield, together with Selsey West Beach (Seager Thomas 1998), are exceptional assemblages in terms of their range of forms compared to other Sussex Late Bronze Age assemblages, particularly those from the coastal plain. These other assemblages each have only a restricted number of elements of the full Late Bronze Age assemblage range. The latter emphasizes the general lack of larger-scale excavations of Late Bronze Age sites in Sussex and continues to negate against a full understanding of the nature of Late Bronze Age settlement activity.

Late Bronze Age chronological indicators

Technology

Finger-furrowing, finger pressing, pinch-splayed bases, and profusely flint-gritted undersides of bases, are all technological traits which characterize Late Bronze Age assemblages from Lowland Britain. These traits have been widely noted for Sussex Early first millennium BC assemblages (Gardiner and Hamilton 1997; Hamilton 1987) and the Ford Airfield Late Bronze Age pottery assemblage is fully concurrent with these traditions (e.g. see Fig. 11.2, 11.5, 11.8, and 12.12, 12.15, and 12.16).

Fabrics

The temper and inclusion components of the coarseware, and medium-coarseware fabrics are similar to those from Selsey West Beach, Yapton and Knapp Farm, and comprise locally available materials. The coastal plain Brickearths would have provided potting clay and flint- gravel for tempering. Flint would have been available from further afield on the Downs. The presence of occasional grog-temper also occurs at Yapton (Fabric 4, Hamilton 1987) and Knapp Farm (Fabric 3, Gardiner and Hamilton 1997) but is absent from Selsey West Beach.

Decoration

The small amount of decoration, and its restricted range, associated with the Ford Airfield pottery suggests a dating later than the very beginning of the first millennium BC (Barrett1980; Hamilton 1993), but earlier than sites such as Yapton, and Selsey West Beach, which have a fuller range of decoration. A more extensive use of decoration is commonly ascribed to the 8th century BC onwards (Needham 1996). The most recurrent decorative trait on the Ford Airfield assemblage is that of finger-impressed decoration of rim tops to produce a cabled effect (Fig. 11.5, 11.7, 14.40, 15.48, and 15.49). The shoulders of vessels nearly all lack decoration. Cabled rims also occur at Selsey West Beach (Seager Thomas 1998, Fig 4:2), and it is a decorative variant on the finger-impressed 'pie crusted' rims present at Knapp Farm (Gardiner and Hamilton 1997, Fig. 9:14), Carne Seat (Hamilton 1986, 43) and Thundersbarrow Hill pre-hillfort enclosure (Hamilton 1993 A4.6:5)

Form types

Expanded, flat-topped rims

Further support for a Late Bronze Age dating later than the very beginning of the first millennium BC are the externally- and internally-expanded flat-topped rims (variously described as 'hammer-headed', or 'lipped') associated with the medium-coarsewares (e.g. Fig. 11.5, 12.16, 12.20 and 13.23). Expanded rims are variably present in Late Bronze Age assemblages from Lowland Britain and are ascribed a post 10th-century BC and later dating. The latter is based on their interpretation as skeuomorphic representations of bronze cauldron rims and the associated metalwork and radiocarbon dates (e.g. Ashville Trading Estate, Oxon.: De Roche 1978, Pit 60; Ivinghoe Beacon, Bucks.: Cotton and Frere 1969, Fig. 16). In Sussex these forms occur most frequently at Bishopstone (Hamilton 1977, Fig. 41: 11, 13), Heathy Brow (Hamilton 1982, Fig 33: 2, 7 and 8) and Selsey West Beach (Seager-Thomas 1998, Fig. 5:5, 8 and 10). The Bishopstone assemblage has a thermoluminescence date of 1550-350 BC (Bell 1977, 290).

Convex, barrel-shaped and straight-sided vessels

Convex jars comprise one of the earliest components of Late Bronze Age assemblages, being present by the end of the second millennium BC but are still current in post 7th century BC assemblages (Gardiner and Hamilton1997, 80). The Ford examples include ones with rounded rims (Fig. 13.27), and hooked rims (Fig. 12.18). Barrel-shaped jars with flat-topped rims (Figs 15.50 and 18.60), straight-sided vessels (Figs. 11.5 and 11.7) and necked, round-shouldered jars (Fig. 16.51) are also present. Knapp Farm (e.g. Gardiner and Hamilton 1997, Fig. 9:11 which compares with Ford Airfield Fig. 16.51) and Bishopstone (Hamilton 1977) form the closest parallels to this range of Ford Airfield medium-coarseware forms. By contrast, Yapton lacks this range of forms, having predominantly convex-sided jars for its coarse/medium-coarseware component.

Shouldered bowls

The Ford shouldered bowls fall into two categories. Firstly, those with short necks and a slight concave profile (Fig. 11.4, 12.10, 13.21 and 14.40-42), and secondly, bowls with longer flaring rims/necks (Fig. 15.47 and 17.52). This suggests a typological chronology with the second being later (see below for discussion of these). Limited stratigraphic evidence indicates that shouldered bowls with shorter profiles have primacy within the Lower Thames Valley Late Bronze Age bowl sequence (Adkins and Needham 1985). These occur in assemblages, which on the basis of metalwork associations and radiocarbon dates, have 10th-8th century BC dates (Field and Needham 1986, Adkins and Adkins 1983, Longley 1980). The Ford Airfield shorter-necked forms are similar to those from Thundersbarrow Hill pre-hillfort enclosure (Hamilton 1993, Fig. A4.7:13) and Knapp Farm, but are more extended than those associated with the Yapton assemblage. One of the short-necked vessels however has a foot-ring base (Fig. 17.58), suggesting an Early Iron Age dating for some of the bowls including the flaring-necked bowls (Figs. 15.47 and 17. 52), (see below for discussion).

Latest Bronze Age/early Iron age chronological indicators

There are some pottery forms from the Ford Airfield assemblage which suggest a later, early first millennium BC use of the site. These are specifically associated with the fineware fabrics.

Fabrics

The relatively abundant presence of quartz in the finewares suggests deliberate selection of sandy clay or the use of quartz sand as a temper. Quartz sand is available on the coastal plain (e.g. beach sand), but is more likely to be of wealden origin, relating to the Lower Greensand outcrops. Quartz-sand fabrics are associated with Latest Bronze Age and Earliest Iron Age assemblages in Sussex, Essex and Surrey (Hamilton 1993, 163, 221; Needham and Longley 1980, 413) and are not generally characteristic of the earliest first millennium BC assemblages.

Diagnostic forms

The forms include the shouldered bowls with flaring necks (Fig. 15.47 and 17.52), a similar example of which occurs locally at Rustington Site A (Hamilton 1996, Fig. 6:1), and the foot-ring bases (Fig. 13.19 and 17.58). It is difficult to find direct local comparisons for the bases. They share a conceptual similarity with the low pedestals associated with the Green Street, Eastbourne 'onion-shaped' shouldered bowls (Budgen 1922; Hodson 1962, Fig. 3). The latter have a suggested post 6th-century BC dating (based on continental parallels, Hodson 1962). Foot-ring bases occur in eastern England associated with Cunliffe's 'Darmsden-Linton' style group of Early Iron Age pottery. They are also found in Surrey Early Iron Age assemblages, and in Sussex at Findon Park (Fox and Wolseley 1928) and Park Brow (Hawley 1927; Wolseley et al.1927) . They have a suggested 5th century BC date for their first appearance (again, primarily on the basis of the basis of their continental affinities, Cunliffe 1991, 76). The incised cordon-grooved shoulder from a bowl (Fig. 17.57: Context 509) has an equally later chronology. This form of decoration emerges in Wessex by the 7th century BC and recurs down to the 5th century BC. Thus, the presence of Fabric Types 9 and 11 finewares, (which are associated, although not exclusively, with these later forms), and the forms themselves, (particularly in Postholes 904 and 1042, and Pits 2, 4, and 510), characterize features associated with a further Early Iron Age (re)-use of the site.

The intra-site spatial zonation of the assemblage

The Ford Airfield deposits and features with relatively small numbers of sherds mirror the relative presence of fabric categories (e.g. Context 1046) observed for features with more plentiful quantities of early first millennium BC pottery. This recurrence of the same general fabric mix (particularly for the coarsewares, and medium-coarsewares) suggest the existence of middens where the pottery (and other rubbish) was primarily collectively deposited, and subsequently was re-deposited in pits and ditches. The larger scale middening of material, and the subsequent levelling of sites by clearing midden material into pits and ditches has increasingly been recognized as a Late Bronze Age phenomenon in southern England (Hamilton 1987; Needham and Spence 1996).

Several of the sherds show burning across sherd breaks. This suggests that they had been cleared from the same household or activity area which had gone on fire, or was subjected to intense heat, at sometime subsequent to the breakage of

the sherds, but before their removal to a midden area. In particular the material from Pit 2 and Posthole 2 showed burning across sherd breaks. Sherds from the same pots occur in more than one feature, again suggesting that the fills of features were derived from communal middens (see above for discussion of sherds from spread 1085, Posthole 2, Pit 4 (Context 1113)

The distribution of finewares (which relate to a very limited number of vessels), additionally indicates links (deposits from the same source?) between contexts PH1 (914), PH2 (1042), layer 1085, P4 (1137), and T2 (1115). This may suggest proximity to distinct activity areas (associated with eating and drinking?), and in some cases relates to the Early Iron Age phase of site use (see above).

Sussex early first millennium BC pottery assemblages and their overall sequencing: the dating of the assemblage

The Ford Airfield assemblage provides an important addition to a growing number of early first millennium BC assemblages now recognized from Sussex, and particularly the West Sussex coastal Plain (Hamilton in press). The assemblage shares characteristics in common with the Late Bronze Age assemblages from Bishopstone, Heathy Brow, Knapp Farm, and Thundersbarrow Hill pre-hillfort enclosure. It is probably earlier than the Yapton assemblage, which has some decorated finewares, and it is also earlier than the pottery from Selsey West Beach, which also has a more highly decorated assemblage. The Yapton assemblage is associated with a radiocarbon date of cal BC 910-530 BC (HAR-7038, 2600670 BP), while the Selsey West Beach assemblage has two pending radiocarbon dates (Seager Thomas per. comm.). The Ford Airfield radiocarbon results of cal BC 1100-820 (BETA-144445, 2820660BP), and cal BC 1120-820 (BETA 1444446, 2800660BP), associated with Late Bronze Age pottery in Layer 1085 and Pit 4 respectively, would likewise suggest an earlier dating that Yapton. Typologically, the Ford Airfield Late Bronze Age assemblage best fits perhaps a 9th century BC dating (with a later assemblage discussed below). The Ford Airfield Late Bronze Age assemblage is therefore earlier than the more highly decorated Late Bronze Age assemblages from the hillforts of Harting Beacon (Hamilton 1977, 1993) and Chanctonbury Ring (Hamilton 1980, 1993) which have suggested 7th century BC datings. The recent West Sussex coastal plain finds from Birdham, Climping, and Chichester Westgate also suggest assemblages of a similar date to Ford's main Late Bronze Age assemblage. Climping, for example, has a very similar vessel to the one of the Ford convex jars (Fig. 17.54), together with rims with cable-decorated tops. Collectively the Ford Airfield assemblage, together with those from these contemporary sites, establishes the West Sussex Coast plain as a major zone of settlement at the beginning of the first millennium BC.

The nature of subsequent early first millennium BC activity at Ford Airfield, and the associated pottery assemblage at Ford Airfield is less clear. The flaring rim shouldered bowls, and the foot-ring bases find local comparison in the assemblages from Rustington Site A (Hamilton 1990: a flaring rimmed but no base is present), Findon Park and Park Brow. This suggests further sustained activity in the region during the 7th to 5th centuries BC. Collectively these sites suggest that there is a growing potential to achieve a continuous early first millennium BC ceramic sequence for the West Sussex coastal plain.

Endscript

All radiocarbon measurements relating to the discussion of the Ford Airfield pottery and associated assemblages are quoted at 95% confidence (2 sigma) and have been calibrated using the data sets of Pearson and Stuiver (1986) and Pearson et.al. (1986). They have been calculated using the maximum intercept method (Stuiver and Reimer 1987).

Acknowledgements

Mike Seager Thomas drew the early first millennium BC pottery (Figs. 11.1-18.62) and provided information on Selsey West Beach.

Later Iron Age and Roman Pottery

Introduction

The evaluation trenches yielded 116 sherds (975 gm) and the main excavation 3270 sherds (35401 gm) of pottery. This material ranges in date from the Middle Iron Age to *c* AD 70 or slightly later.

Methodology

All assemblages were quantified by numbers of sherds and their weight in grams per fabric. Fabrics were classified with the aid of a ×8 lens with built-in metric scale and, where further magnification was necessary, by a ×30 pocket microscope with built-in illumination.

Fabric codings are numerical with the prefixes S for sand filler, CF for calcined flint, AF for alluvial flint, G for grog and GS for grog and sand filler. These codings are followed by the suffixes H for handmade, T for tournetted and W for wheel-turned. Further suffixes O,B,SS and G indicate whether the pot is oxidised, surface blackened, soot-soaked or grey reduced. A further suffix P is used for sherds with patchy colouration. This coding system is particularly useful in West Sussex, where sand-tempered fabrics were in use throughout the Late Iron Age and Romanisation of them takes the form of improved pot-making and firing technology rather than major changes in filler.

Only one assemblage, from the south-east corner fills of the Enclosure 2 ditch, was large enough for quantification by Estimated Vessel Equivalents (EVEs) based on rim sherds (Orton 1975).

Fabrics

Sand-tempered

S.1A. Rowlands Castle ware (Hodder 1974,86).

S.1B. Rowlands Castle ware with additional sparse to moderate coarse flint. This is a Late Iron Age to *c* AD 70 dated fabric variant when used for cooking-pots and other small vessels but continued in use for large storage-vessels into the early-third-century.

S.2. Arun Valley ware with profuse up-to 1.00 mm. poorly-sorted multi-coloured quartz filler and occasional to moderate angular black ironstone of similar size. This fabric was

formerly termed Hardham Ware, but the recent discovery of kilns of the Hardham/Wiggonholt industry at the Littlehampton Crops Research Centre site just across the River Arun from Ford (Laidlaw and Lyne 2000) indicates production of such wares over a considerably wider area both north and south of the Downs. Production of handmade and tournette finished soot-soaked and surface-blackened variants of this fabric commenced during the Late Iron Age.

S.3. Coarse fabric with moderate 1.00 mm to 3.00 mm angular black/red ferrous inclusions and profuse up-to 1.00 mm. irregular to subangular multi-coloured quartz filler. A Late Iron Age fabric represented by a single jar from Ditch 1093 (Fig.19.5).

S.4. Very-fine grey fabric fired cream externally with profuse ill-sorted up to 0.50 mm. colourless quartz filler.

S.5. Fabric with profuse subangular up-to 0.50 mm quartz filler and the occasional alluvial flint grit of similar size.

S.6A. Coarse red fabric with profuse up-to 0.50 mm. multi-coloured quartz filler, fired black. A Late Iron Age and Early Roman Arun Valley industry fabric variant.

S.6B. Fine red fabric with profuse silt-sized quartz, fired smooth black with mica-dusting. Hardham London ware.

S.6C. Similar to S.6A but with additional sparse up-to 1.00 mm white calcareous inclusions.

S.7. Sandfree grey Upchurch ware from North Kent (Monaghan 1987) with sparse to moderate brown to grey ferrous inclusions. Seven sherds from a closed form were recovered from Context 112 in Assessment Trench 1 and may be indicative of coastal trading links with the Thames estuary.

S.8. Rough fabric with profuse up-to 0.75 mm multi-coloured quartz, occasional up-to 0.20 mm. rounded glauconite and a little mica.

S.9. Orange-brown fabric with profuse silt-sized to 0.10 mm. multi-coloured quartz and occasional up to 2.00 mm. soft red ferrous inclusions.

S.10. Alice Holt/Farnham greyware with profuse up to 0.20 mm colourless quartz filler (Lyne and Jefferies 1979, Fabric A). A few jar bodysherds in this fabric came from the fills of the Enclosure 2 ditch and indicate trading contacts with this industry on the Hampshire/Surrey border. This trade, however, may have been indirect and the wares acquired through the market at Noviomagus Regnensium, as such wares also occur in mid-to-late first century pottery assemblages from Chichester and were probably traded in small quantities down the Silchester road.

S.11. Gallo-Belgic whitewares from the Amiens region of North-East Gaul. Fragments from a butt-beaker and a lagena are present in Pre-Flavian contexts.

S.12. Terra Nigra. Fragments of a platter of uncertain form but from the same area as the Gallo-Belgic whiteware vessels came from the Enclosure 2 ditch.

S.13. South Gaulish Samian.

S.14. Micaceous orange-brown fineware.

S.15. Wheel-turned fabric with profuse up-to 0.50 mm. angular crushed calcite and rounded multi-coloured quartz.

S.16. Oxidised sandfree ?Hoo fabric with soft red ferrous inclusions. Fragments from a flagon are present in the *c* AD 43-70 dated assemblage from Context 1310.

S.17. Hard high-fired fabric with profuse up-to 0.20 mm. colourless quartz. The one vessel in this fabric (Fig 20.22) may be a product of the Claudian Chapel Street kilns in Chichester (Down 1978).

S.18. Soot-soaked fabric with profuse up-to 0.10 mm. quartz and a little coarser material.

S.19. Off-white fabric with profuse sub-angular up-to 0.30 mm. colourless and white quartz, moderate up to 0.75 mm black ferrous inclusions and thin blue-grey surface slip. Vessels in this fabric were probably produced by the Arun Valley industry and are rare at Ford.

S.20. Pink fabric with profuse minute to 1.50 mm. crushed reddish-brown ferrous and up-to 1.00 mm crumbly cream inclusions. Fired soft cream.

Grog and sand tempered

GS.1 Coarse fabric with profuse poorly-sorted up-to 1.00 mm. multi-coloured quartz filler (mainly iron-stained) and moderate crushed brown up-to 4.00 mm. grog (?pot).

Grog-tempered

G.1. East Sussex Ware (Green 1980). A few sherds in this fabric from production centres east of the River Adur may have arrived on the site through coastal trade.

G.2. Similar but with additional sparse shell filler.

Alluvial-flint tempered

AF.1. Coarse fabric with profuse up-to 15.00 mm irregular, white-patinated flint grit and up-to 0.20 mm quartz filler.

Calcined-flint tempered

CF.1. Handmade with profuse up-to 2.00 mm calcined flint.

CF.2 Handmade with sparse up-to 2.00 mm calcined flint.

CF.3. Handmade with sparse up-to 2.00 mm calcined flint and organic inclusions.

The assemblages

Middle Iron Age *c* 300–50 BC

Fragments from two saucepan pots are present: both are apparently residual in their contexts. One from fill 1099 of enclosure E2 is in patchy black/brown fabric CF.2 (Fig.19.1), the other piece comes from fill 1516 of the same enclosure and is in polished handmade black fabric with profuse up-to 1.00 mm. irregular colourless-quartz filler (Fig.19.2).

Late Iron Age *c* 100 BC–0

Assemblage 1: from the fills of enclosure E1 (1227) (Contexts 1225,1305 and 1306)

The upper fills of this feature, of which one rounded corner intruded into the western end of the excavated area, produced 52 sherds (1228 gm) of pottery, including fragments from a ?Dressel 1A amphora and a handmade pot in lumpy CF.1 fabric. Two fragmentary cremation pots were also found together within fill 1305 in the same ditch:

Fig.19.3. Bead-rim bowl with pedestal foot in tournetted black fabric with red-to-brown surface patches and profuse

up-to 0.50 mm subangular colourless and white quartz filler. Ext. rim diameter 160 mm.

Fig. 19.4. Lower part of polished jar with girth-cordon above overall fine horizontal surface rilling, in handmade black fabric fired brown-buff internally with profuse ill-sorted up-to 1.00 mm. crushed calcite and up-to 0.30 mm. subangular colourless quartz filler. The complete vessel was probably similar in form to the high-shouldered necked-jar from the *c* 90-50 BC dated Grave 20253 at Westhampnett (Mepham 1997, Fig. 83.27141, Fitzpatrick 1997), also with body-rilling.

Late Iron Age *c* 0–AD 50

The field system ditches were for the most part lacking in pottery but the following, somewhat larger, assemblage belongs to this phase:

Assemblage 2: from the fill of Ditch 1093 (Context 1048)

The 406 sherds (5887 gm.) of pottery from this feature include the greater parts of the following two pots with very-coarse filler:

Fig. 19.5. Jar with rolled-over and undercut rim in tournetted grey fabric S3TG with rough surfaces. Ext. rim diameter 200 mm.

Fig. 19.6. Necked handmade jar in rough grey-black fabric AF1HB with brown margins. Ext. rim diameter 200 mm.

The rest of the material (31 sherds,479 gm.) is made up of bodysherds in fabrics CF1HSS (1),CF2HSS (8),S2TG (9),S2HSS (4),S6AHB (6), two in miscellaneous sandy fabric and one intrusive Late Medieval sherd.

The other field-system ditches produced a total of 26, rather nondescript, sherds (261 gm) of Late Iron Age pottery.

Pre-Flavian *c* AD 50–70

The main Enclosure 2 ditch belonging to this phase produced most of the pottery from the site (2254 sherds,13763 gm); including the following assemblage:

Assemblage 3: from the fills of the south-west corner of the Enclosure 2 ditch (Contexts 1090, 1091, 1098, 1099, 1103, 1105)

These fills produced 809 sherds (9727 gm.) of pottery; a large enough assemblage for quantification by Estimated Vessel Equivalents (EVEs) based on rim sherds (see Table 11 below):

Table 11 Estimated Vessel Equivalents (EVEs) based on rim sherds

	Fabric							
	Jars EVE	**Bowls** EVE	**Dishes** EVE	**Beakers** EVE	**Store-jars** EVE	**Others** EVE	**Total** EVE	**%**
CF1HO	P						P.	
CF2HO	P.						P.	
S1AWB	P.						P.	
S1ATG	P.						P.	
S1AWG	1.15				0.07		1.22	11.9
S1AWO	0.05						0.05	0.5
S1BWG					0.07		0.07	0.7
S2HSS	P.						P.	
S2HO	P.						P.	
S2TG	0.73						0.73	7.1
S2WSS	0.96						0.96	9.3
S2WB	1.67	0.39	0.48				2.54	24.7
S2WG	3.3			0.28		Flagon 0.16	3.74	36.4
S2WO	0.12						0.12	1.2
S2WP	0.15						0.15	1.5
S3WG	P.						P.	
S5HO	P.						P.	
S5WG	P.						P.	
S6AWB	0.11						0.11	1.1
S6BWB				P.			P.	
S8WG	0.07						0.07	0.7
S9WO						?Flagon P.	P.	
S10WG	P.						P.	
S11WO				0.28			0.28	2.7
S12			P.				P.	
S17WG				0.24			0.24	2.2
GIHSS	P						P.	
TOTAL	**8.31 (80.7%)**	**0.39 (3.8%)**	**0.48 (4.7%)**	**0.80 (7.8%)**	**0.14 (1.4%)**	**0.16 (1.6%)**	**10.28**	

By far the most common wares are Arun Valley industry products (80%): this is not surprising as kilns of this industry and of mid-to-late first-century date were recently excavated at the Horticultural Research International Site in Littlehampton, only three kilometres away on the other side of the River Arun (Lovell 2000).

The second most significant pottery supplier was the industry or industries producing wares in Rowlands Castle type fabrics (13%), at Rowlands Castle itself on the Hampshire-Surrey border (Hodder 1974), at Fishbourne (Lyne Forthcoming B) and probably elsewhere in the vicinity of Chichester. Pottery from other sources is insignificant but includes a possible Chapel Street, Chichester kilns product (Down 1978), body sherds from at least one grog-tempered East Sussex Ware cooking-pot, Alice Holt/Farnham industry greyware sherds and fragments from a Gallo-Belgic whiteware butt-beaker and lagena.

Some of the material is pre-Conquest in date but most belongs to the period *c* AD 43–70 and is very largely made up of jars and other closed forms. Soot-soaked Atrebatic Overlap wares account for only 9% of the pottery and surface-blackened ones for 26%: the overwhelming bulk of the pottery is wheel-turned and most is fired grey. The following pieces are of particular interest:

Fig. 19.7. Everted rim jar in grey Rowlands Castle ware fabric S1AG. Ext. rim diameter 180 mm. 1098.

Fig. 19.8. Necked jar with hooked-over rim in similar fabric with superficial external reddening. One of two. 1098.

Fig. 19.9. Necked bowl in similar fabric. Ext. rim diameter 160 mm. 1098.

Fig. 19.10. Bead-rim jar in similar fabric. Ext. rim diameter 160 mm. 1099.

Fig. 20.11. Another jar with short vertical rim in similar fabric but finished on a tournette. Ext. rim diameter 190 mm. A similar form was present in the upper fill of the pre-Flavian ditch at the Cattlemarket site in Chichester (Down 1989, Fig. 21.2-6). 1103.

Fig. 19.12. Everted rim storage jar in grey Rowlands Castle fabric S1BWG. Ext. rim diameter 260 mm. 1098.

Fig. 19.13. Jar with stubby everted rim in blackened buff-brown Arun Valley fabric S2WB. Ext. rim diameter 200 mm. 1090.

Fig. 19.14. Necked-jar in grey fabric S2WG. Ext. rim diameter 120 mm. 1098.

Fig. 19.15. Necked bowl in similar fabric. One of two. 1098.

Fig. 20.16. Another example but in blackened fabric S2WB with polished exterior. Ext. rim diameter 140 mm. Similar forms were present in Ditch 15 at Ounces Barn, Boxgrove (Middleton 1995, Fig. 19.145). Mid-Late 1st century 1098.

Fig. 20.17. Another example but with slack profile, in similar fabric fired grey. Ext. rim diameter 140 mm. Paralleled at Ounces Barn, Boxgrove in Ditch 12 (Middleton 1995, Fig.16.68). Identical forms in similar fabric were made in the Phase 2 Pre-Flavian Horticultural Research International site kilns at Littlehampton (Laidlaw and Lyne 2000, Fig. 4.4). *c* AD 43–70. 1098.

Fig. 20.18. Necked-jar in fabric S2TG with darker patches. Ext. rim diameter 160 mm. Similar to examples from Ounces Barn, Boxgrove (Middleton 1995, Fig. 19.131) and the Littlehampton kilns (Laidlaw and Lyne 2000, Fig. 4.2) Mid-Late 1st century 1098.

Fig. 20.19. Bead-rimmed bag-shaped jar of a form similar to examples from Wiggonholt (Evans 1974, Fig. 11.47) in fabric S2WB. 1090.

Fig. 21.20. Straight-sided dish with beaded rim in Fabric S2WB with polished surfaces. Ext. rim diameter 260 mm. A similar dish came from a Claudian context at Chapel St, Chichester (Down 1978, Fig. 10.8–14). 1098.

Fig. 20.21. Cupped flagon rim in grey Fabric S2WG. Ext. rim diameter 110mm. 1098.

Fig. 20.22. Girth beaker of similar profile to example from Chapel Street kilns in Chichester (Down 1978, Fig. 10.4-8.10) in hard brittle Fabric S17WG of probable similar origin. Ext. rim diameter 90 mm. *c* AD 45–50. 1090.

Fig. 20.23. Gallo-Belgic butt-beaker in pinkish-cream Fabric S11WO. Ext. rim diameter 100 mm. *c* AD 43–70. 1098.

The following piece came from the fills of the ditch on the south side of the enclosure:

Fig. 20.24. Gallo-Belgic platter imitation in Hardham 'London' ware fabric S6BWB with polished surfaces. Ext. rim diameter 180 mm. *c* AD 50–70+. 1289.

The small amounts of Hardham fineware and total absence of Wiggonholt cream ware products from the enclosure ditch fills suggests that occupation became a lot less intense after AD 60. A general dearth of finewares of any description from both the Enclosure 2 ditch and other contemporary features further suggests that the site was of low social status during the period *c* AD 43–70.

Assemblage 4: From the fill of Ditch 25 at its northern end (Context 1197)

The 57 sherds (1006 gm.) of pottery from this context constitute too small an assemblage for any form of meaningful quantification. The material does, however, seem to be of broadly the same date and make-up as that from the Enclosure 2 ditch and includes the following interesting pieces:

Fig. 20.25. Necked jar in black fabric S2WSS with orange-brown patches and burnished vertical lines on its body and rim top polish. Ext. rim diameter 160 mm. This is a typical Southern Atrebatic Late Iron Age form and occurs at Hazel Road, North Bersted (Lyne Forthcoming A), Ounces Barn, Boxgrove (Middleton 1995, Fig. 20.155), Copse Farm, Oving (Hamilton 1985) and elsewhere in West Sussex. The form does not seem to have survived much later than *c* AD 50. 60–80 cm. down in fill.

Fig. 20.26. Over-fired and warped everted-rim jar sherd in blue-grey fabric S2WG with orange margins. Ext. rim diameter 180 mm. 60–80 cm. down.

Fig. 20.27. Bead-rim jar in similar fabric. Ext. rim diameter 150 mm. Similar to an example from the Claudian latrine slot at Chapel Street, Chichester (Down 1978, Fig. 10.6-6). 60–80 cm.

Figure 19 Late Iron Age/early Roman Pottery

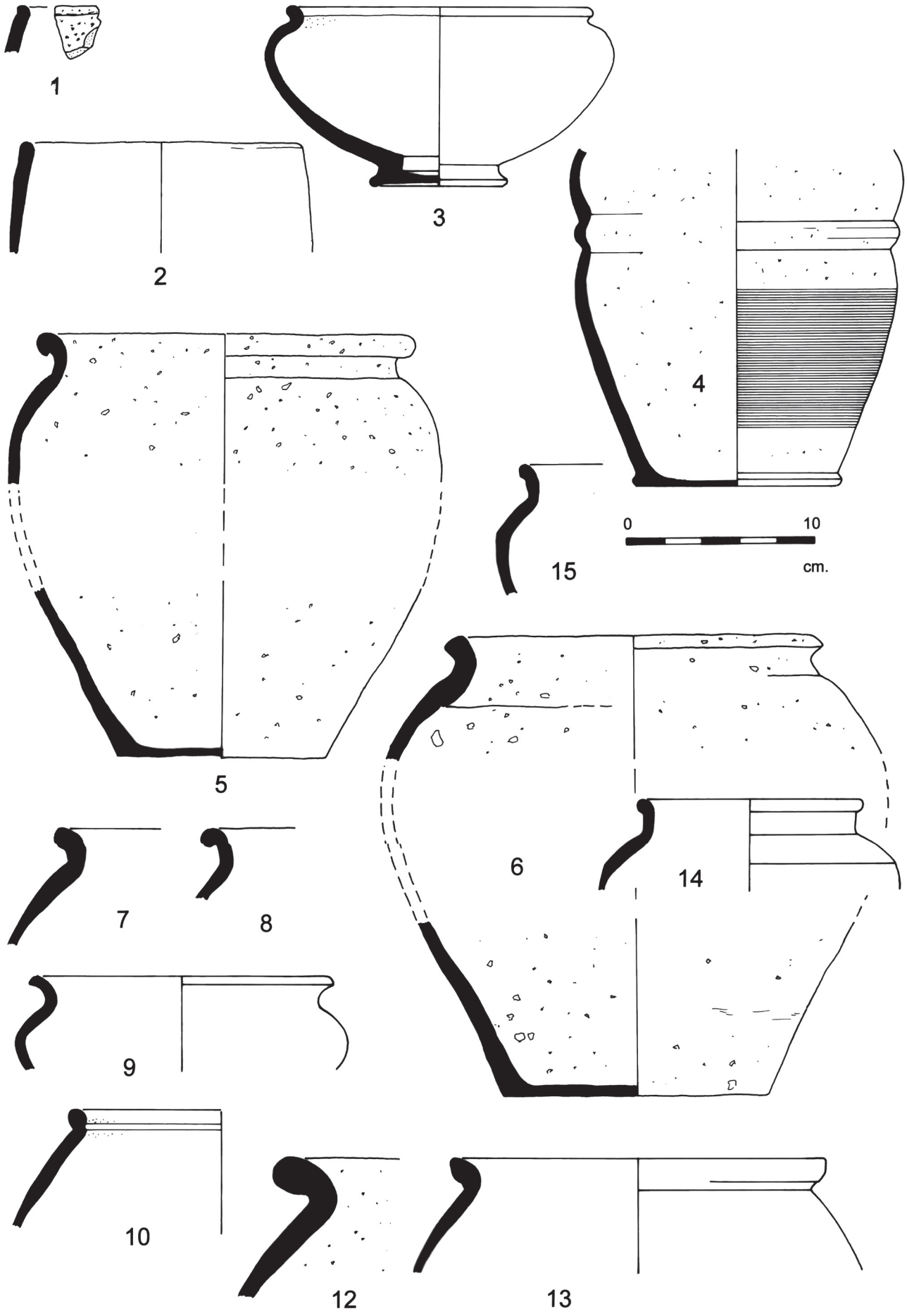
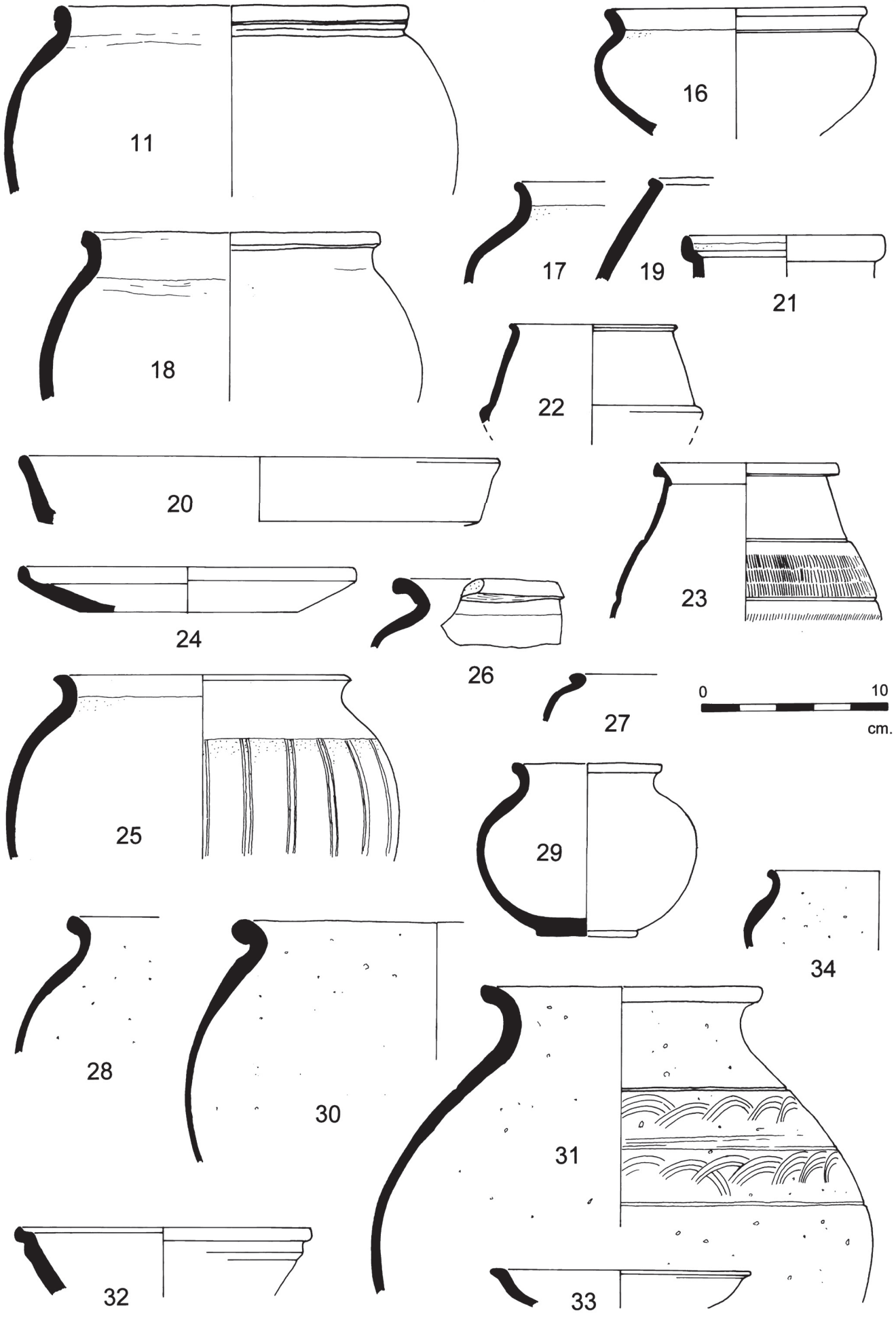


Figure 20 Late Iron Age/early Roman Pottery



Early Roman *c* AD 60/70–150

Assemblage 5: From the fills of Ditch D26 (Contexts 1310, 1312, 1463 and 1532)

This ditch produced 608 sherds (6496 gm.) of pottery of mainly pre-Flavian character and including the following four complete pots found inverted in the feature:

Fig. 20.28. Necked jar in handmade, soot-soaked fabric S5HSS with brown surface patches. Ext. rim diameter 180 mm. Paralleled at Ounces Barn, Boxgrove (Middleton 1995, Fig. 21.164). Mid-1st century.

Fig. 20.29. Necked bowl in handmade, soot-soaked fabric S2HSS with brown surface patches. Paralleled in Ditch 12 at Ounces Barn, Boxgrove (Ibid., Fig. 16.68) where dated *c* AD 43–70. Ext. rim diameter 80 mm.

Fig. 20.30. Everted-rim jar in coarse gritted grey Rowlands Castle type fabric S1BWG with superficial surface reddening. Ext. rim diameter 220 mm.

Fig. 20.31. Large necked-jar with wavy combing on the shoulder, in coarse grey fabric S1BWG fired patchy black with brown margins. Ext. rim diameter 150 mm.

These four pots are difficult to date with any precision but should be earlier than AD 60 and could be as early as Late Iron Age in date. This suggests that they were placed in the ditch soon after it was dug around AD 60 and were already old at the time of their deposition.

Rubbish with potsherds continued to be dumped in the feature, albeit in very small quantities, until after AD 70 and includes fragments from the following vessels:

Fig. 20.32. Flanged dish in black Fabric S3WSS. Ext. rim diameter 160 mm. A similar form, but with horizontal rilling, was made in the Phase 4 kilns at Littlehampton (Laidlaw and Lyne 2000, Fig.4.17) and is dated *c* AD 70–150. 1310.

Fig. 20.33. Flanged platter in sandfree grey-black fabric S6BWB with profuse mica. Ext. rim diameter 140 mm. 1312

Assemblage 6: From the fill of semi-circular gully D27 (Context 1402)

The 61 sherds (374 gm.) of very broken-up pottery from this feature are very largely of Pre-Flavian or earlier character and may be entirely residual in nature. There are only two rim sherds, including the following:

Fig. 20.34. Necked-bowl or jar in handmade buff-grey fabric GS1HG. Ext. rim diameter 120 mm. Similar to an example from Ounces Barn, Boxgrove (Middleton 1995, Fig. 13-11). *c* 0–50 AD.

Only three of the pits within the enclosure (1464, 1466, 1473) may be later than AD 70: this and tiny amounts of *c* AD 70–150 dated pottery from the enclosure ditch fills suggest that full-time occupation ceased soon after AD 60 and was replaced by much more limited, occasional activity over the next hundred years.

The amphorae fragments

The Enclosure 1 ditch fills (Context 1225) produced a single sherd from an Italian Dressel 1A or 1B amphora: the field ditch D11 fills (Contexts 1081 and 1501) yielded three further similar sherds, including two joining rim fragments from a Dressel 1B amphora (*c* 75–10 BC). Yet another bodysherd in similar fabric came from Pit 12 (1420).

The Samian

The material poverty of the pre-Flavian occupation of the site alluded to above is further reflected in there being only one sherd of samian in the excavated assemblages. This piece is from a South Gaulish Dr.18 platter and came from the fills of Ditch 1214.

Charred Plant Remains

(Pat Hinton)

Samples of soil, each of 1–40 litres, were processed by the excavators by flotation machine. The floated results (flots), which varied in volume from 1–25ml, were then examined by the writer using a stereo microscope at 7–40X magnification. All but the smallest of the dried flots were passed through a stack of sieves of >4mm–0.25mm mesh sizes to facilitate sorting. Smaller amounts were searched in entirety but a few of the larger amounts, particularly the smaller fractions (<1mm), were sub-sampled and numbers of small seeds such as fat hen (*Chenopodium album*) were estimated. The remaining parts of these samples were however scanned for additional seeds or fragments.

In Tables 1, 3 and 4 all taxa are represented by seeds unless otherwise indicated and the term 'seed' is used throughout to include seeds, caryopses, nutlets, etc. Nomenclature accords with Stace (1997). A list of common names of the identified plants is included (Table 2).

Several samples with larger numbers of seeds, in particular two from the Late Bronze Age and some Roman features, are particularly informative. Many of the other samples contain only small numbers of cereal grains and wild plant seeds and nine contain no charred plant material other than charcoal. The condition of the seeds varies considerably; those from the smaller scatters are often damaged or degraded whereas those protected by numbers in the larger deposits are often well preserved. Full details of all samples which contained charred seeds are recorded in Table 1 (Late Bronze Age), Table 3 (Late Iron Age) and Table 4 (Early Roman).

The probable predominance of emmer among the glumed wheats in the Late Bronze Age, the apparent increase of spelt in the Late Iron Age samples and the dominance of spelt in the Roman period is typical of wheat cultivation as reflected in many other sites. Wheat is almost always the major cereal identified from sites on the coastal plain of Sussex, e.g at Littlehampton (Lovell, forthcoming), Boxgrove (Bedwin & Place 1995), Bognor (Hinton, unpublished client report) and Westhampnett (Fitzpatrick et al., forthcoming).

Linseed is found more rarely than cereals but this does not necessarily reflect its importance. It requires no heating in the earlier stages of preparation and so, unlike the glumed wheats which need drying and parching, is less likely to become accidentally burned. The plant has been reported from British prehistoric sites; first as impressions in Neolithic pottery (Helbaek 1952), and increasingly as charred or waterlogged

seeds at Middle and Late Bronze Age sites onwards. It is not possible to say whether the plant was cultivated for its oil-rich seeds (linseed) or for fibre (flax). When grown for fibre the uprooted plants require a longer period of processing which includes softening in water. The association with cereals in this deposit does seem to imply that the plant was grown for the nutritious seeds.

In the majority of samples from all phases there is little information to be gained as to the processing stage of the cereals as found. Only in two samples from the Early Roman phase is chaff in sufficient quantities to suggest that whole spikelets of wheat (rather than fully prepared grain) may be involved. It is likely that the earlier stages of processing, i.e. threshing and first sievings took place nearby.

The alluvial soils of the coastal plain, and the adjacent greensands, would have been eminently suitable for cereal production and those represented here most likely were grown in the vicinity, although barley would be an appropriate crop for the lighter calcareous soils of the chalk downs. Flax or linseed can be grown in varying conditions, from clays to light sandy soils but it flourishes on friable loams. Peas grow better on light soils and beans, while tolerating most soils, are best on medium loams. (Newsham & Gunston 1947). These crops then could well have been locally produced. The wild plant seeds provide little information since they are mainly of species which readily grow in any disturbed ground.

The chief value of the plant remains from this site is probably their illustration of a progress of activity in an area which was becoming increasingly open to cross-channel contacts, and which became in the later Iron Age and the Roman period an important centre of cereal production and distribution.

Cremated Bone

Jacqueline Mckinley

Cremated bone from two Late Iron Age deposits was received for analysis, which followed the writer's standard procedure for the examination of cremated bone (McKinley 1994a, 5–21). Age was assessed from the stage of skeletal and tooth development (Beek 1983, McMinn and Hutchings 1985) and the general degree of age-related changes to the bone (Bass 1987). Sex was ascertained from the sexually dimorphic traits of the skeleton (Bass 1987).

Results

A summary of the results is presented in Table 12.

Deposit 1296 – made in the upper fill of a ditch– was clearly substantially disturbed, the very small amount of bone recovered being spread over a relatively wide radius of 1m. The bone was heavily worn and no fragments of trabecular bone were recovered; both observations are indicative of burial in acidic soil conditions (McKinley 1997, 250–251), in this case accentuated by the burial apparently being made unurned and by the subsequent disturbance.

The remains for two individuals were identified, one a young infant, the other a young-mature adult. No pathological lesions were observed.

Table 12 A summary of the results

context	type	bone wt.	age	sex	pyre goods
1095	*urned cremation burial	52.3g	young infant	?	sheep
1296	?unurned cremation burial	46.3g	adult 18–40 yr.	?	

* denotes undisturbed

All the bone was white, indicative of a high degree of oxidation (Holden *et al.* 1995a & b), and showed the classic dehydration fissures indicative of the burning of 'green' bone. It is probable that an unknown quantity of bone will have been lost from 1296 in consequence of the known truncation. Consequently it would be inappropriate to comment of the quantity of bone included in the deposit other than to observe that the it represents only *c* 3% of the average weight of bone from an adult cremation (McKinley 1993).

The maximum fragment sizes recovered were relatively small, 20mm skull and 22mm long bone and the vast majority of the bone from each deposit (minimum 82%) was less than 10mm in size. There are a number of factors which may affect bone fragment size, including deposit type, bone preservation and level of disturbance (McKinley 1994b); in the case of 1095 the young age of the individual will have been a contributory factor.

There is no evidence to suggest deliberate selection of certain skeletal elements for burial.

The recovery of cremated animal bone – pyre goods – from cremation burials of this date has been recorded elsewhere (McKinley *et al* 1997), sheep/goat comprising one of the most commonly recovered species.

Other Specialist Reports

The following specialist reports, not included in full here, are contained within the Assessment Report held by West Sussex County Council:

Metallurgical remains – Jeremy Hodgkinson

Metalwork – Luke Barber

Animal bone – Lucy Sibun

Charcoal – Sophie Seel

Geoarchaeological investigations – Chris Pine and Patrick Hunter

Worked flint – Chris Butler

Fire-cracked flint

Fired clay and ceramic building material

Objects of stone

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