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Knapp Farm, Bosham

A SIGNIFICANT FIND OF BRONZE AGE POTTERY

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Excavations on the line of the A27 road identified four phases of activity: a Mesolithic flint scatter, Late Bronze Age pits, fragmentary remains of a Roman farm dated to the 2nd to 4th centuries and slight medieval remains. A study of the Bronze Age pits suggest that the site may have been 'closed down' by removing the remaining artefact spreads. Trenches cut to locate a possible arm of the Chichester Entrenchments noted on aerial photographs failed to identify any remains.

THE EXCAVATION

By Mark Gardiner

The Coastal Plain of West Sussex includes some of the most fertile and most intensively cultivated soils in south-east England. Although the soil quality must have made it an attractive area for settlement from an early date, relatively little is known about its archaeological remains (Bedwin 1983). In 1984 English Heritage funded a programme by the Field Archaeology Unit (Institute of Archaeology) to fieldwalk and excavate a new length of the A27 road between Chichester and Havant in advance of the construction. That work allowed an area of the Coastal Plain to be examined in detail. Full details of the work are recorded in an archive report. The present paper describes the excavations at the main site examined, Knapp Farm, Bosham.

A scatter of worked flint was located from almost the whole line of the road during fieldwalking, but the only concentration of prehistoric material was discovered to the north of Knapp Farm (SU 81960605). A spread of Roman pottery was also found in the same area, extending either side of Brook Lane (Fig. 1). The discrete scatter which was no more than 300 m across suggested the presence of a small farm. A further reason for the examination of the area was a possible arm of the Chichester Dyke system. Previous workers have noted a bank evidently belonging to the Dyke system running southwards in the direction of the new road from the west of Densworth House, which is termed NS5 according to the established numeration (Bradley 1971) (Fig. 2). The southerly extent of the bank has not been certainly established. Williams-Freeman (1934, 101) suggested that it could be traced running through the grounds of Oakwood Park. It may be identified as a cropmark crossing the dyke known as EWD to the south of the park (Bradley 1971, 26). It is apparently shown as a slight earthwork running from EWD (SU 82660649) towards Chalcroft Copse (SU 82640623). The same aerial photographs (National Air Photographic Library, Swindon, SU8206/1, 2) suggest that there was a possible second dyke nearby, which butts against NS5 and therefore is secondary to it. The second dyke is indicated by a poorly defined soil mark identified on an aerial photograph running towards Knapp Farm (West Sussex County Council, 1965 survey 22/65, nos 048, 049; Fig. 2). That soil mark appeared to be aligned with an earthwork shown on the Ordnance Survey 1:2500 map immediately to the north-east of the house called Miller's Ash and also present as a degraded bank in the garden of the house.

Excavations were begun in 1984. The ploughsoil over the centre of the pottery scatter was stripped by JCB 3C mechanical excavator on the west side of Brook Lane (Fig. 3, trench A). On the east side, a series of trenches were cut to locate the ditch of the presumed dyke. The area available for excavation on this second field was limited by agricultural activity and a series of staggered short trenches at the edge of the field had to be dug instead of a single longer trench to attempt to intercept the ditch of

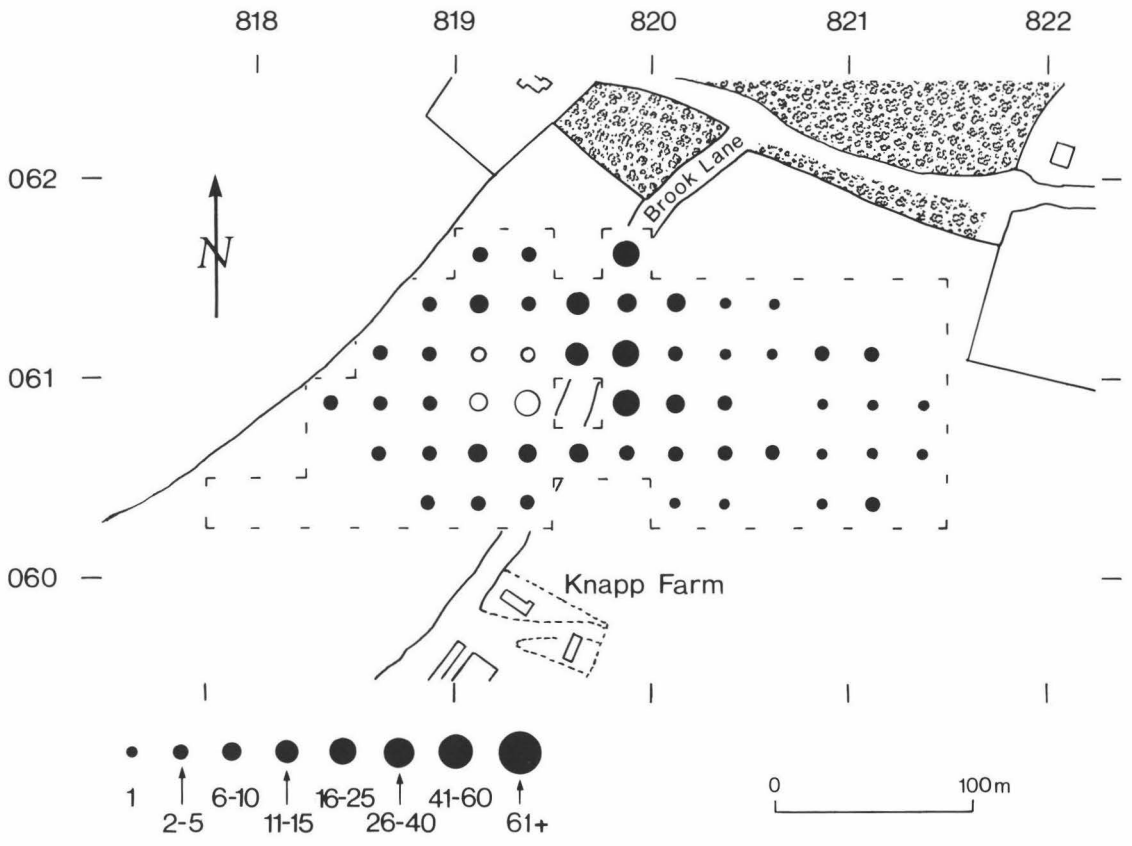

Fig. 1. Field-walking results: Romano-British pottery at Knapp Farm (Bosham).

the possible Chichester Dyke (Fig. 3, trenches B–E). A series of Bronze Age pits were identified in the south corner during the excavation of trench A. Two further trenches were opened in 1985 to continue the examination of these (Fig. 3, trenches F & G).

AREAS A, F AND G (Figs 4–6)

Four periods of activity were identified in the excavated area on the west side of Brook Lane. The first evidence of use of the site is represented by a scatter of Mesolithic flint work, which was concentrated near the eastern edge of the excavated area. The quantity of worked flint became apparent after stripping the upper and lower ploughsoil in 1985. Area F was then planned, a spit was excavated and the finds collected in two-metre squares. The process was repeated and the finds collected in one-metre squares until undisturbed Brickearth was reached.

The second period was represented by a cluster of intercutting pits of later Bronze Age date (Figs 4, 5 & 7 on microfiche). There were considerable problems in excavating these features. The edges of the pits were barely apparent on the surface and as they were excavated the grey to orange-brown silt clay fills merged with the natural Brickearth. The limits of some features could be determined only from the presence or absence of pottery, charcoal and calcined flint. Generally, the pits were somewhat shallow and irregular (pits 123, 325 & 329, Figs 5 & 7 on microfiche) and frequently merged into each other. As a consequence few stratigraphic relationships could be established. A careful record was made during excavation of the position of larger individual sherds and groups of sherds. The pits had clearly been used for depositing rubbish: broken vessels, charcoal and calcined flint. No other features of Bronze Age date were identified.

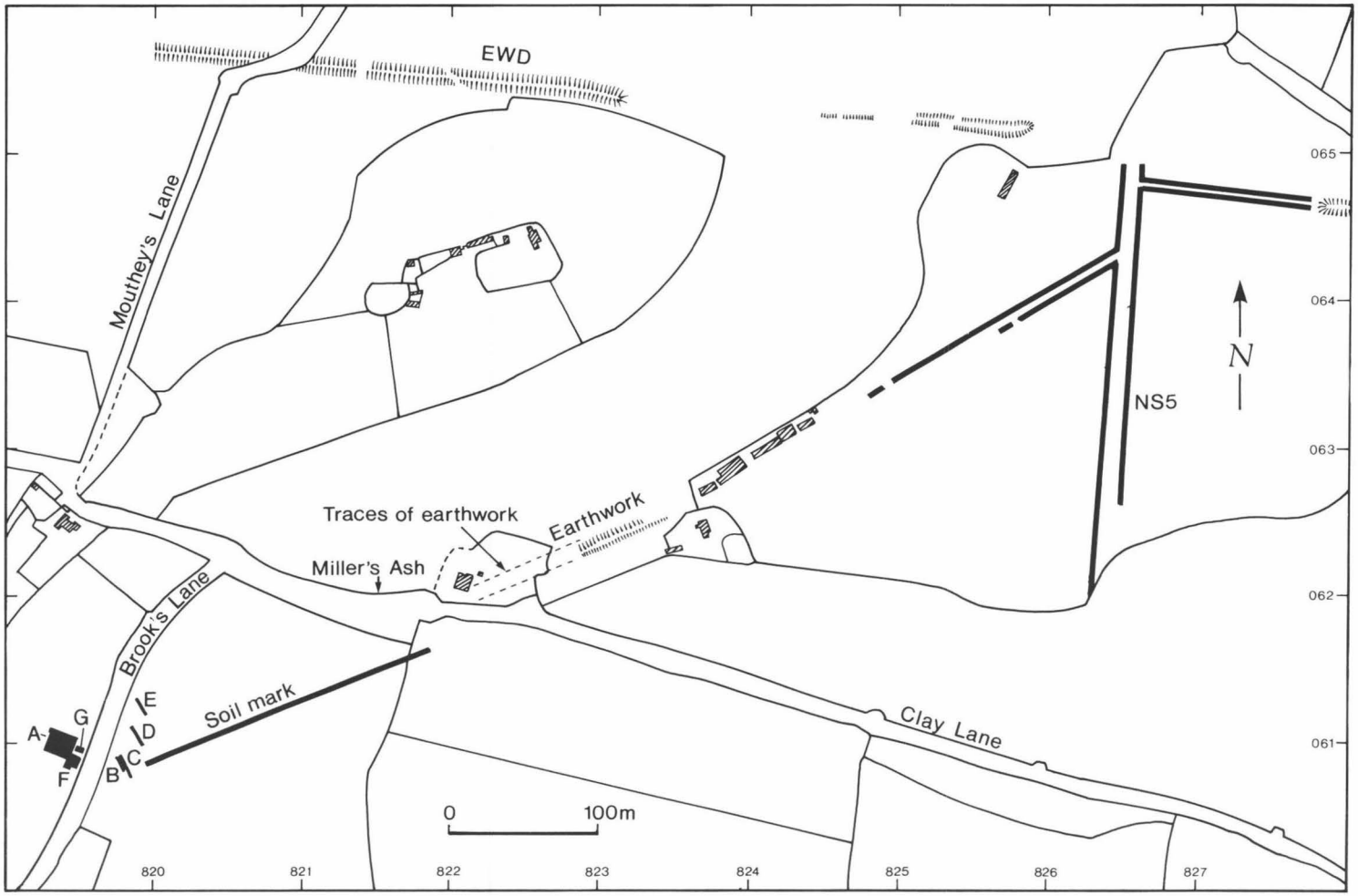

Fig. 2. Line of possible dyke identified from aerial photography and earthworks.

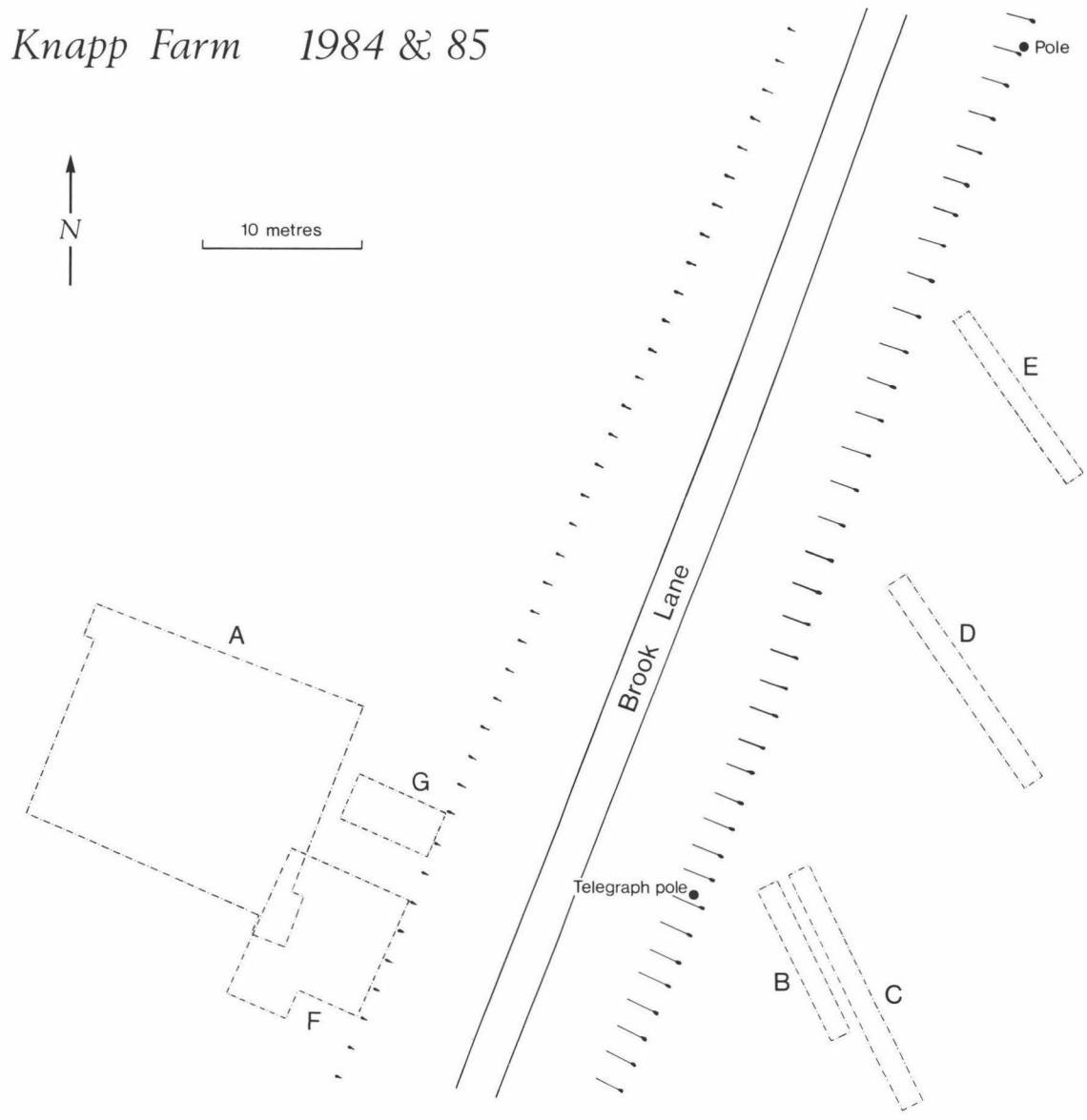

Fig. 3. Knapp Farm trench location plan.

The greatest concentration of Roman pottery was found in the ploughsoil in area A (Fig. 3), but when it was stripped it was found to be largely devoid of Roman features. A small pit was located near the north-west corner into which a single inverted Roman pot had been placed and packed around with tegulae fragments (Figs 4 & 6, context 103). The pot had broken and a second inverted pot had been placed inside the first. The bases of the pots, which lay uppermost, had been removed by ploughing and the feature had been partly disturbed by a recent land drain. The soil from within the pots was

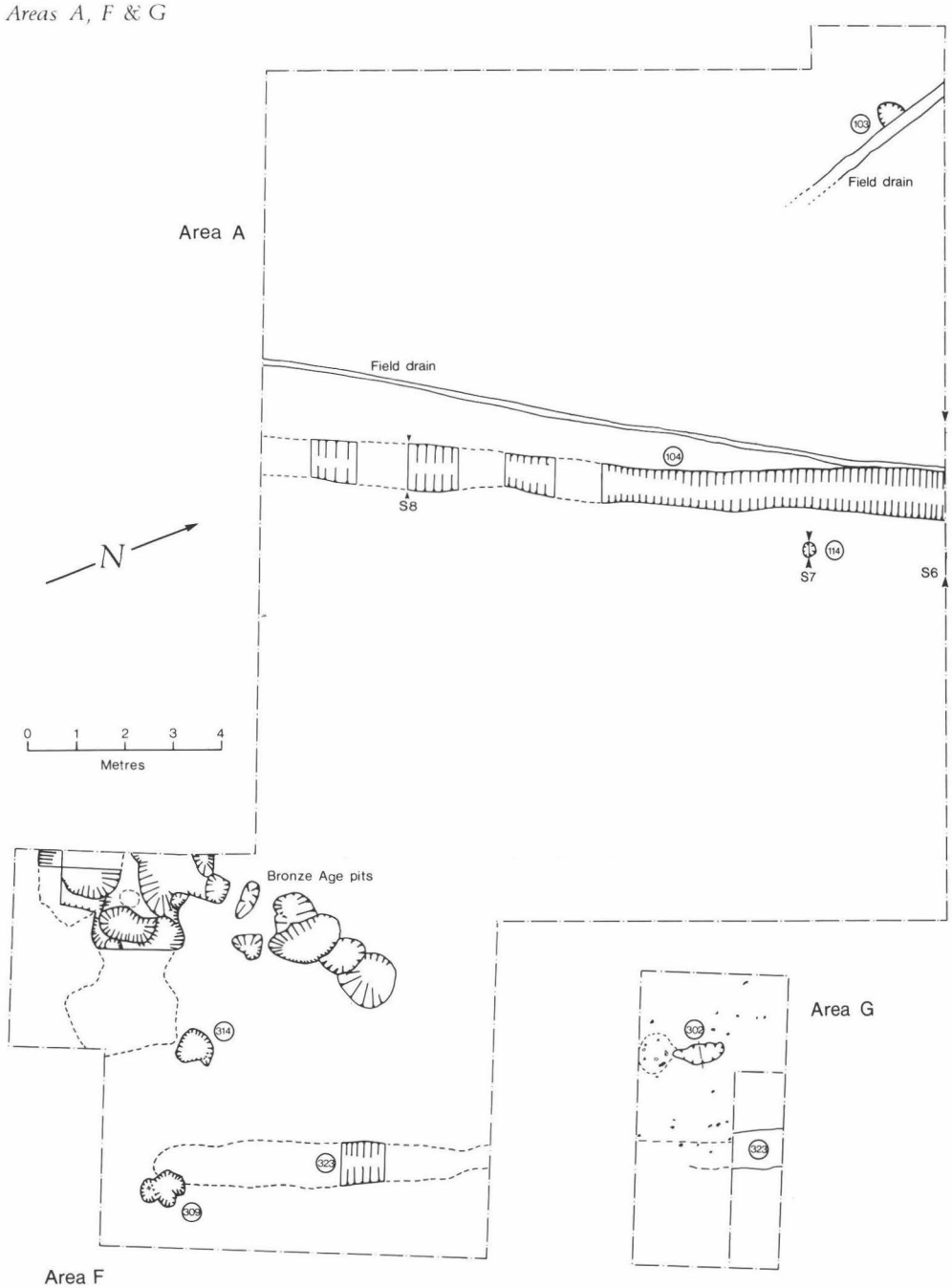

Fig. 4. Knapp Farm, areas A, F and G plans.

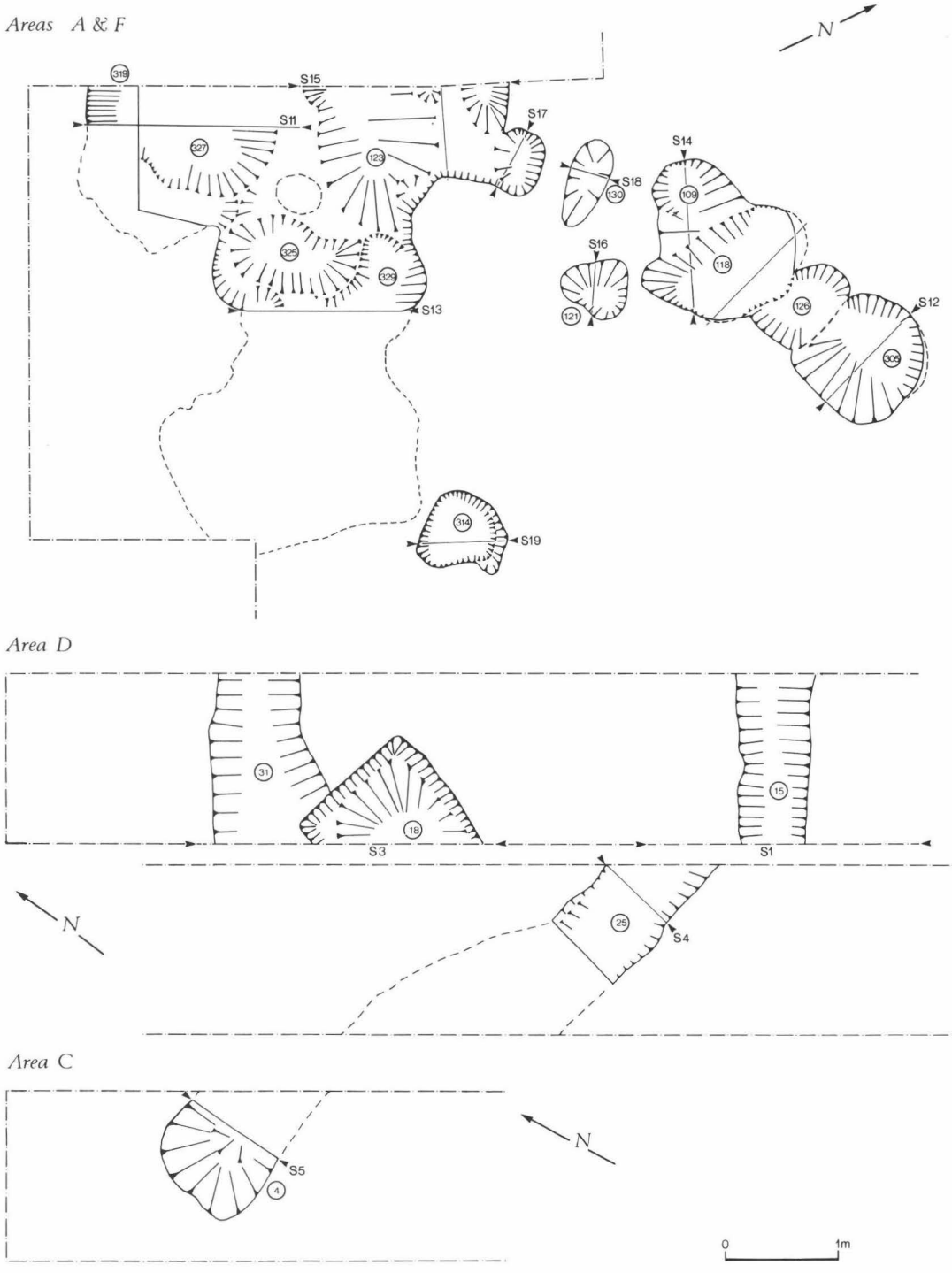

Fig. 5. Knapp Farm. Detail plan of areas A and F. Plans of areas C and D.

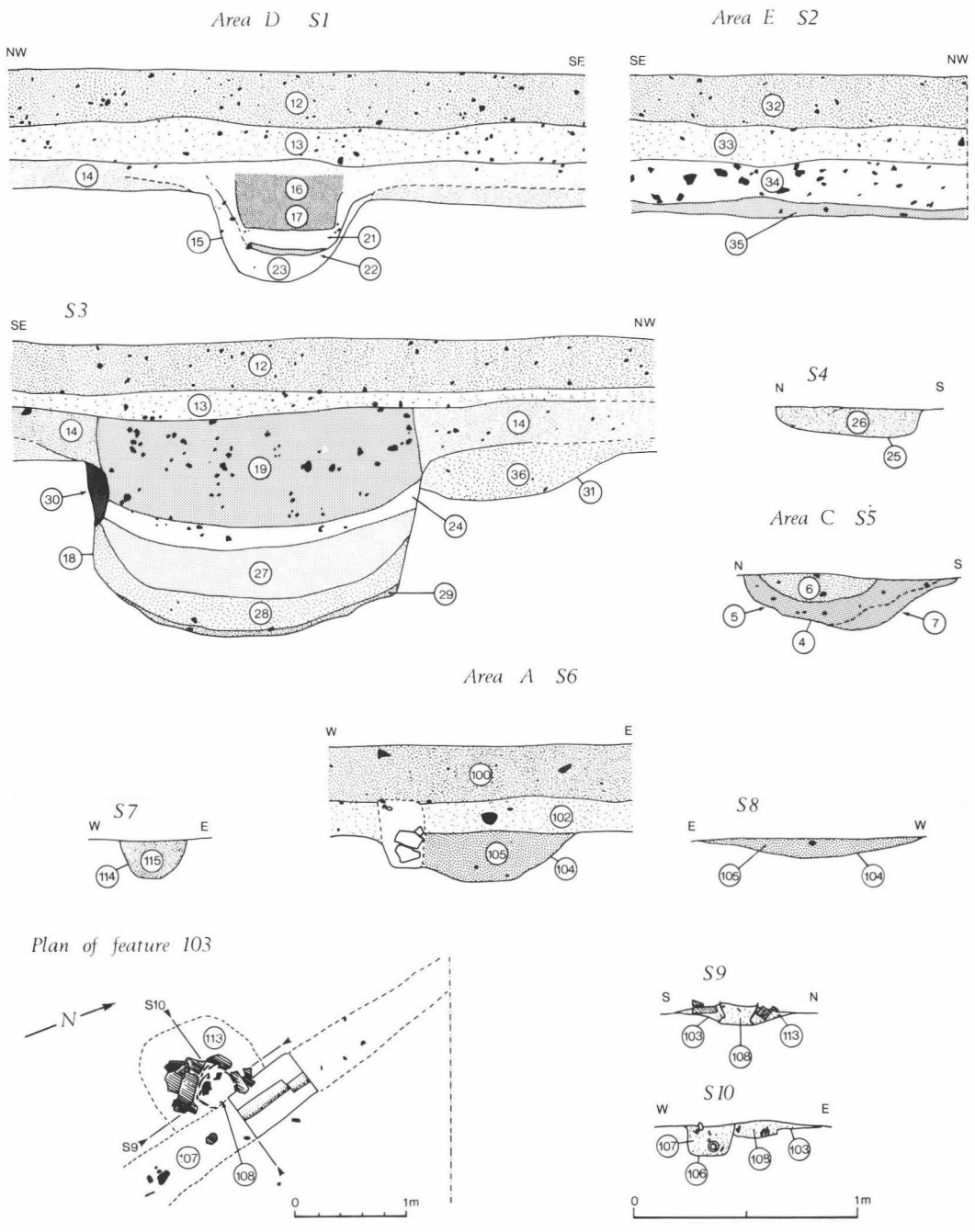

Fig. 6. Knapp Farm. Sections and detailed plan of pit 103.

carefully excavated and subsequently sieved to determine if cremated bone was present. None was found. A second shallow pit (302) filled with tile was excavated in area G (Fig. 4). The feature had ill-defined edges but contained a concentration of tile and burnt sandstone.

The final period of activity was indicated by two shallow ditches (Fig. 4, 104, 323). A piece of brick found towards the base of feature 104 suggests it was post-medieval. These two seemed to be ditches from ridge-and-furrow earthworks. Ditch 323 presumably lay at the former edge of the field. It may be noted that similar features were recorded in the excavations at Fishbourne Roman palace (Cunliffe 1971, 194–5). A number of undated features were located. These include several post-holes, for example 114 and 309. However, as 309 appeared to cut ditch 323, a post-medieval date is probable.

TRENCHES B, C, D AND E (Figs 3, 5 & 6)

Trench B was initially dug by hand, but was replaced by trench C which was excavated by machine to the base of the ploughsoil. A third trench, D, was also opened by machine and a fourth, trench E, beyond it to the north was dug by hand. A similar sequence of deposits was revealed in all the trenches. Beneath the contemporary ploughsoil (Fig. 6:S1–3, contexts 12 & 32) was a lower ploughsoil which may be dated by the finds to the 13th or 14th century (13, 33). This in turn overlay a further layer, which could be subdivided (14, 34, 35) and into which features had been cut.

A single feature was identified in area C (Fig. 5), a shallow pit (4), which contained material of the 16th century (Fig. 6:S5). Area D was crossed by three linear features and a single square pit (Fig. 5, contexts 15, 18, 25 & 31). Two of the features, 25 (Fig. 6:S4) and 31 (Fig. 6:S3), could not be dated. The fills of feature 31 were, however, cut by the square-shaped pit containing a sherd of medieval pottery. The third linear feature (15) also contained medieval pottery. Its section (Fig. 6:S1) shows that the fills 16 and 17 may occupy a recut. Thin deposits were noted against the edge of the square pit (30) although only one is visible in the illustrated section. These might have been produced by recutting the pit, though a more likely explanation is that the pit was originally lined with wood which subsequently rotted and was replaced by soil.

No features were found in area E.

LATE BRONZE AGE POTTERY TRADITIONS IN WEST SUSSEX: THE KNAPP FARM ASSEMBLAGE AND ITS REGIONAL CONTEXT

By Sue Hamilton

INTRODUCTION

Just over 2.3 kg of Late Bronze Age pottery was recovered from the pit complex at Knapp Farm. This pottery find-spot comprises the first stratified Late Bronze Age pottery from the Selsey peninsula and Chichester Harbour environs of the West Sussex coastal plain. The Knapp Farm pottery adds to a growing number of Late Bronze Age pottery find-spots identified/located in West Sussex over approximately the last decade (Hamilton 1993). This report considers the Knapp Farm assemblage and its context within the Late Bronze Age pottery traditions of West Sussex as a whole. The discussion concentrates on the earliest post-Deverel-Rimbury Late Bronze Age ceramic phase to which the Knapp Farm assemblage is ascribed. In addition, the wider regional context of Sussex Late Bronze Age pottery assemblages is outlined.

The Late Bronze Age pottery assemblage comprises a meagre 298 sherds. The average weight per sherd was, however, high: 7.8 g. In some contexts (notably pit 329) the average weight per sherd was as high as 26.7 g. The high weight per sherd not only reflects the weightiness of flint-gritted fabrics which characterize the assemblage, but also the relatively unbroken state of some of the vessels. The implications of the 'completeness' of the assemblage are discussed below.

All radiocarbon dates quoted in the text have been calibrated according to data published by Pearson and Stuiver 1986 and method A as published by Stuiver and Reimer 1993. Dates are quoted at one sigma.

METHOD OF ANALYSIS

The pottery was analyzed using the pottery recording system recommended by the Prehistoric Ceramics Research Group (1992). All sherds were ascribed a fabric type on the basis of macroscopic examination and the use of a binocular microscope. The sherds were then counted and weighed to the nearest whole gramme. Diagnostic sherds were additionally assigned to form, decorative, and technological types.

STRATIGRAPHIC CONTEXT

Although no sherd joins could be securely established across features, the similarity of the fabric and diagnostic sherds throughout the features suggests a group of related material.

The following relationships between sherds are of particular note:

1. Three pits (pits 126, 327 & 329) produced sherds from the same or very similar vessels. Interestingly, these pits are not adjacent to each other but are widely dispersed across the pit complex (Fig. 5).

2. Two pits (pits 126 & 305) produced sherds from the same or very similar vessels. These pits are adjacent to each other and intercutting (Fig. 5).

3. A few sherds from separate pits (pits 305 & 327) had similarly suffered contact with intense heat after firing and before final disposal. These pits are at opposite ends of the pit complex.

An implication of these inter-feature relationships is that a significant proportion of the pit complex was open at the time of rubbish infill. The presence of connected sherds across several of the pit features suggests that there was either:

a) a primary collective rubbish area which was subsequently cleared into the open pits, or

b) that the site was 'closed down' in a single act by the general levelling of artefact spreads into remaining open pits and hollows.

Stylistically the prehistoric pottery forms a discrete Late Bronze Age group; earlier and later prehistoric pottery is absent. This suggests that the site relates to activity over a relatively short timespan.

The position of the sherds from a three-quarters complete vessel in pit 329 was planned during excavation. The vessel's 'completeness' suggests that it was placed there as the immediate point of disposal after initial damage (and loss/disposal of a small part of the vessel) elsewhere. That might favour option b) above. The distribution of sherds indicates that, either the vessel was thrown into the pit and fortuitously landed without further damage or, perhaps more likely, was carefully placed on its side in the pit and subsequently fragmented *in situ* owing to the weight of the fill above it.

The deposition characteristics of the Knapp Farm assemblage raise two wider issues of artefact deposition. Firstly, a tradition of site levelling prior to site abandonment may be locally characteristic of the Late Bronze Age. For example, it has been similarly detailed for the Late Bronze Age assemblage from Yapton (Hamilton 1987). Secondly, the possibly purposeful placement (rather than merely functional disposal) of the nearly complete jar in pit 329 may be part of a wider symbolic 'ideology' relating to rubbish placement and site vacation, as has been suggested for Iron Age 'rubbish' deposits (Hill 1994).

LATE BRONZE AGE POTTERY FABRICS

All inclusion/temper sizes given below are classified using the Wentworth sedimentary scale and descriptive terms (Krumbein & Pettijohn 1938, 30; Prehistoric Ceramics Research Group 1992, 35). Density charts (Prehistoric Ceramics Research Group 1992, appendix 3) were used to standardize assessment of the quantity of inclusion/temper present in fabric matrices.

The range of fabrics present compares locally with the West Sussex Late Bronze Age assemblages of Carne's Seat (Hamilton 1986), Rustington (Hamilton 1990) and Yapton (Hamilton 1987).

Table 1. Knapp Farm Late Bronze Age assemblage: sherd counts according to context and fabric categories.

Contexts	**Fabrics**			
	F1	**F2**	**F3**	**Grammes weight**
Unstratified				
300 ploughsoil	0	0	3	6
301/304 layer below 300	24	0	7	60
307 layer below 301	21	2	1	76
34E stony layer below 301	1	0	0	62
Pits:				
Pit 109 : 110 fill	17	1	0	164
Pit 118 : 119 fill	8	0	0	28
120 fill	1	0	0	1
Pit 121 : 122 fill	0	0	1	1
Pit 123 : 124 fill	77	6	5	548
128 fill	2	0	0	2
Pit 126 : 127 fill	32	0	4	336
Pit 305 : 306 fill	14	0	0	128
Pit 314 : 315 fill	3	0	0	2
Pit 319 : 320 fill	6	8	3	205
Pit 325 : 326 fill	10	1	11	177
Pit 327 : 328 fill	10	0	1	121
Pit 329 : 330 fill	18	0	0	446
Total	**244**	**18**	**36**	**2386**

F1 Medium-coarse flint-tempered
Flint-tempered comprising rare (1% frequency) pebble-sized flint (*c.* 5 mm) together with sparse (7% frequency) to moderate (10% frequency) granule — and very coarse sand-sized flint (averaging *c.* 2 mm), and common (20% frequency) coarse sand-sized flint (*c.* 0.5 mm). Additionally there is a moderate (15% frequency) presence of translucent sub-rounded coarse sand sized (*c.* 0.5 mm) quartz which is probably natural to the potting clay; matrix colour/firing — red-brown, oxidized interior and exterior surfaces and black-brown, unoxidized core; sherd thickness — *c.* 7.5 mm.

F2 Finer flint-tempered
Finer flint-tempered comprising moderately abundant (10% frequency) very coarse sand-sized flint (*c.* 1 mm) together with very common (30% frequency) medium and coarse sand-sized flint (*c.* 0.5 mm); matrix colour/firing — generally partially oxidized, red-brown surfaces (but some sherds have dark brown unoxidized surfaces) with unoxidized cores; sherd thickness *c.* 8.5 mm.

F3 Medium-coarse flint-and-grog-tempered
The flint tempering comprises rare (1% frequency) pebble-sized pieces (*c.* 6 mm) together with sparse (7% frequency) granule-sized pieces (*c.* 3 mm) and moderate (15% frequency) very coarse and coarse sand-sized pieces (*c.* 1.5–0.5 mm). The grog tempering comprises soft, sparse (5% frequency) granule-sized (*c.* 0.2 mm) oxidized brown-red pieces; matrix colour/firing — red-orange oxidized exterior surfaces with dark-brown to dark-grey unoxidized interior surfaces and core, but occasionally interior surfaces are oxidized buff/light orange; sherd thickness — *c.* 8.5 mm.

Clay/temper sources
None of the inclusions or tempering identified in the Knapp Farm Late Bronze Age pottery fabrics suggests a non-local source of potting materials. The coastal plain Brickearths, within which the site is situated (Hodgson 1967, fig. 8) are variable in their constituents and could have collectively provided potting clay and flint gravel for temper. The viability of the Sussex coastal plain Brickearth for potting is demonstrated by the small-scale use of these deposits for brickmaking in the recent past (Edmunds 1935, fig. 56). In the use of local resources, the Knapp Farm assemblage resembles other Late Bronze Age assemblages from the West Sussex coastal plain (Hamilton 1987). It differs, however, from the Sussex Late Bronze Age hillfort assemblages from the Downs which evidence exploitation of both local, and more distant Wealden, potting resources (e.g. Hamilton 1980). These differences in resource procurement strategies must relate, in some part, to the greater ease of access to the Wealden area from the Downs.

QUANTIFICATION OF FORM, DECORATION AND TECHNOLOGICAL ELEMENTS

The elements of form, decoration and technology present in the Knapp Farm Late Bronze Age assemblage are listed in Table 2. Tabulation (Table 3) was based on the presence of diagnostic sherds. In tabulating forming and finishing technology, and decoration, some sherds received more than one count owing to the multiple presence of diagnostic elements.

FORMS, DECORATIONS AND TECHNOLOGY: THE REGIONAL CONTEXT OF THE KNAPP FARM ASSEMBLAGE

The Knapp Farm assemblage is largely undecorated (Table 3) and is typical of the largely undecorated assemblages of Lowland Britain dating to the beginning of the first millennium BC. In Sussex similar securely contexted assemblages occur at Bishopstone (Hamilton 1977), Thundersbarrow Hill (Hamilton 1993) and Yapton (Hamilton 1987).

Plain convex jars
Three bevelled rims from convex jars were present in the Knapp Farm assemblage (e.g. Fig. 8:2). Convex jars comprise one of the earliest components of post-Deverel-Rimbury assemblages, being present in lowland Britain at the end of the second millennium BC in Late Bronze Age (LBA) assemblages such as those from South Cadbury, Somerset: phase 4 (Alcock 1980), the double palisade phase at Rams Hill, Berkshire (Barrett 1977) and Knight's Farm, Berkshire, subsite 2 (Bradley *et al.* 1980). Convex jars are occasionally present in Sussex late Deverel-Rimbury assemblages, for example at Itford Hill (Burstow & Holleyman 1957) and subsequently in early LBA contexts such as Plumpton Plain B to which a *c.* 11th-century BC date has been ascribed (Barrett 1980, 311). All of these assemblages include convex jars with internally bevelled rims (e.g. Burstow & Holleyman 1957, fig. 22:B; Hawkes 1935, figs 10:m & 12). Bevelled-rimmed convex jars are, however, long-lived in Sussex, occurring in the

enclosure assemblage preceding the hillfort at Thundersbarrow Hill (Hamilton 1993, fig. A4.7:4) with a 10th- or 9th-century BC date, and the Yapton assemblage (Hamilton 1987, fig. 4:2,5) with a 9th-century cal BC date, but also later in (*c.* 7th century BC) Late Bronze Age decorated assemblages including that from Chanctonbury Ring (Hamilton 1980, fig. 13:39; 1993).

Shouldered jars

The Knapp Farm assemblage has three shouldered jar types. Each is distinguished by a distinct rim form: flattened (Fig. 8:5), out-turned rounded (Fig. 9:11), and 'pie-crusted' (Fig. 9:13 & 14). Only a few sherds were recovered from the first two forms, but the latter includes the three-quarters complete shouldered jar with 'pie-crusted' rim (Fig. 9:14) from Pit 329. In lowland Britain as a whole shouldered jars are regular components of *c.* 10th- to 8th-century BC assemblages. In the Lower Thames valley shouldered bowls regularly occur in 8th-/9th-century BC assemblages such as those from Coombe Warren, Kingston, Surrey (Field & Needham 1986) and Queen Mary's Hospital, Carshalton, Surrey. The latter includes shouldered bowls with 'pie-crusted' rims (Adkins & Needham 1985, fig. 4:4,6).

In Sussex a very similar shouldered jar with fingernail-impressed, 'pie-crusted' rim occurs in a stratified context (Late Bronze Age pre-hillfort enclosure assemblage) at Thundersbarrow Hill, Shoreham (Hamilton 1993). The form also occurs in the stratigraphically mixed assemblages from Selsey (some 15 km south of Knapp Farm on the West Sussex coastal plain: White 1934, fig. 2) and at Highdown Hill near Worthing (Wilson 1940; 1950). The Highdown Hill assemblage embraces a typological sequence which begins with Deverel-Rimbury pottery and subsequently extends from the Late Bronze Age into the Early Iron Age. Similar shouldered jars with 'pie-crusted' rims also occur locally in West Sussex in the stratigraphically mixed assemblage from Rustington (Hamilton 1990, fig. 6:3m), and as residual pottery in a Middle Iron Age context at Carne's Seat (Hamilton 1986, 43). In East Sussex 'pie-crusted' rims also occur on hemispherical bowls, for example in the Late Bronze Age assemblage at Bishopstone associated and preceding the enclosure (Hamilton 1993; 1977).

Bipartite bowls

The Knapp Farm assemblage also includes two plain, rounded rims which are probably from bipartite

Table 2. Knapp Farm Late Bronze Age assemblage: form, decoration and technology elements.

CODE DESCRIPTION

Convex jar rim:
R1 Bevelled, in-turned

Shouldered jar rims:
R2 Flattened
R3 Out-turned, rounded
R4 Plain fingernail-impressed, 'pie crusted'

Bipartite jar/bowl:
R5 Plain rounded rim bipartite jar or bowl

Body sherds:
A1 Shoulder sherd
P1 Plain body sherd

Bases:
B1 Flat
B2 Splayed
B3 Heavily flinted underbase

Decorated body sherds:
D1 Finger-impressed decoration
D2 Incised, horizontal groove

Finish:
F1 Combed

Technology:
T1 Coil-built
T2 Vertical smearing
T3 Finger-pressed
T4 Faceted

Key: R = rim, A = angled body sherds, P = plain body sherd, B = base type, D = decorated body sherd displaying no other features, F = surface finish, T = forming technology.

Table 3. Knapp Farm Late Bronze Age assemblage: the correlation between fabric types and form, decoration and technology.

	Fabrics		
Form elements	**F1**	**F2**	**F3**
R1	3	0	0
R2	1	0	0
R3	0	2	2
R4	5	0	1
R5	1	1	0
A1	0	0	1
P1	0	0	0
B1	0	0	0
B2	2	0	0
B3	3	0	0
D1	1	0	0
D2	2	0	0
F1	4	0	0
T1	5	0	1
T2	22	0	1
T3	4	0	1
T4	1	0	4

See Table 2 for key.

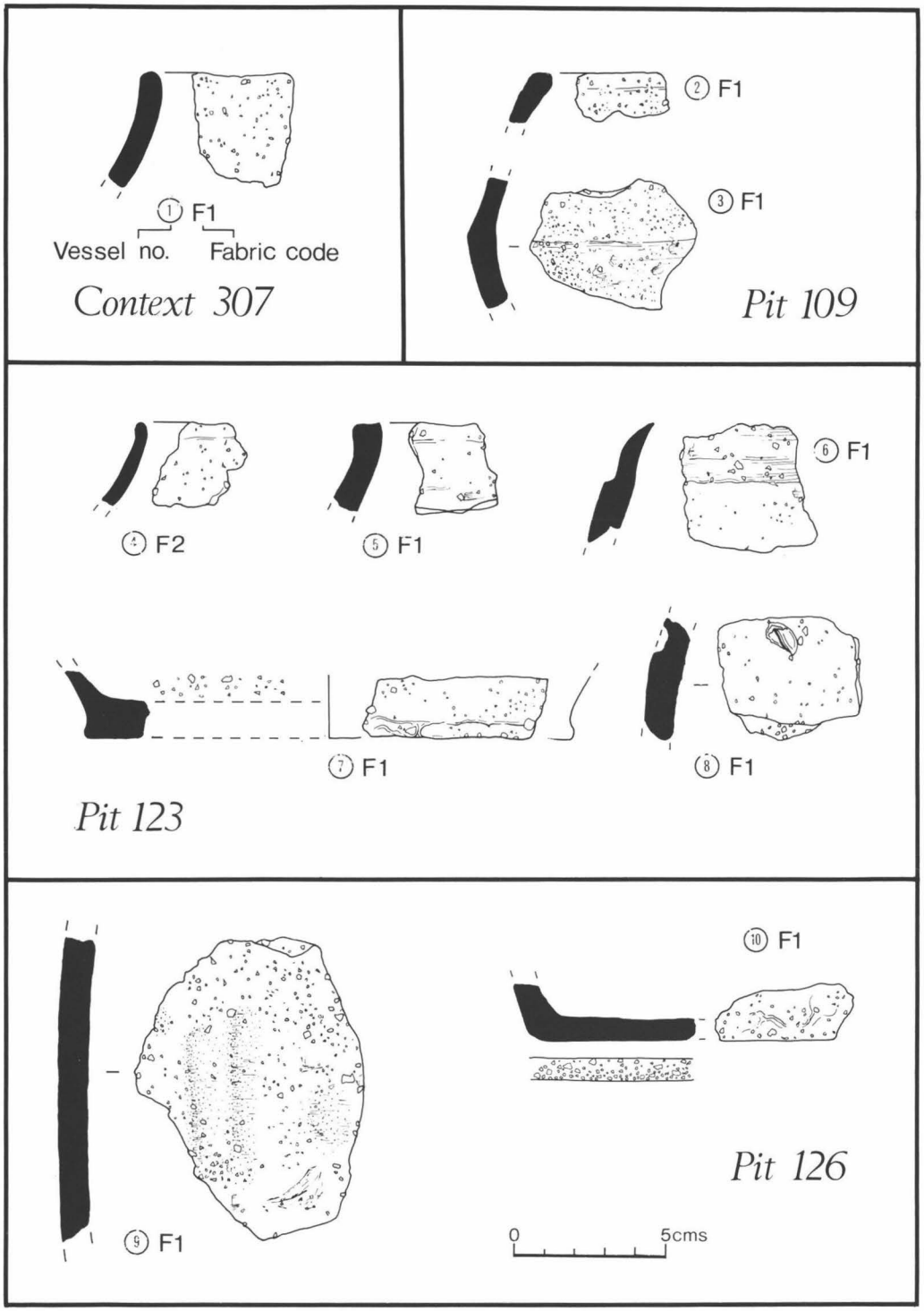

Fig. 8. Knapp Farm. Prehistoric pottery.

bowls (Fig. 8:1 & 4). Plain bipartite bowls are occasionally present in assemblages from the beginning of the first millennium BC. One example, possibly of this date, is the bipartite bowl from site B, West Blatchington, near Hove. This was found in a shallow pit some 6 m from a Late Bronze Age palstave hoard which included a winged axe of the Wilburton metalwork phase (Norris & Burstow 1950). The form is not widely recurrent in West Sussex until about the 7th century BC when it is associated with a series of decorated fine-ware bowls with incised cordon grooves on the shoulders, and diagonal fingernail impressions on the rims (e.g. Harting Beacon: Hamilton 1979; 1993; Stoke Clump: Cunliffe 1966).

Combed finishes

Four sherds in the Knapp Farm assemblage had a combed finish, all of which were too small to illustrate. In Sussex as a whole, Late Bronze Age sherds with lightly combed surfaces occur in several assemblages including those from Bishopstone (Hamilton 1977) and Testers (Hamilton 1988). The tradition of combing has its antecedent in the more prominent striations on Deverel-Rimbury pottery (e.g. from New Barn Down: Curwen 1934, fig. 20).

Technology

Both finger-furrowing (Fig. 8:3, 9 & 10) and pinch-splayed bases (Fig. 9:12) occur in the Knapp Farm assemblage. These features have been associated with slab construction methods. The association, however, is not exclusive. Finger-furrowing and pinch-splayed bases have Deverel-Rimbury antecedents in East Sussex assemblages such as that from Plumpton Plain A (Hawkes 1935, figs 1 & 2), and are recurrent traits in Sussex Late Bronze Age assemblages including Thundersbarrow Hill (Hamilton 1993), Heathy Brow (Hamilton 1982) and Yapton (Hamilton 1987). Several of the Knapp Farm sherds show signs of coil construction (Table 3) and there is no indisputable evidence of slab-construction having been used. A few sherds have horizontally faceted exterior surfaces (Table 2:T4) suggesting that some vessels may have been shaved down with a metal knife or flint blade while being rotated on a turntable (Rye 1981, 59, 87). Three base sherds (e.g. Fig. 8:10) with profuse flint-gritting on their undersides (from being made on a bed of crushed flint) evidence another technological trait which is widely recurrent on Late Bronze Age pottery from south-east Britain (Field & Needham 1986, 137; Macpherson-Grant 1991, 39).

DATING OF THE KNAPP FARM ASSEMBLAGE

On the basis of typology, the Knapp Farm assemblage belongs to post-Deverel-Rimbury ceramic traditions which in Sussex extend down to *c.* 1000 BC, and before the developed early 1st-millennium BC traditions of *c.* 6th century BC. The latter are distinguished by fine-ware decorated bowls typified in West Sussex by the Stoke Clump assemblage (Cunliffe 1966) and in East Sussex by the Hollingbury assemblage (Hamilton 1984). The Knapp Farm assemblage best compares with the Late Bronze Age assemblage from Thundersbarrow Hill, recovered from the ditch silts of the pre-hillfort enclosure. The Thundersbarrow Hill assemblage has a terminus *post quem* of 1606–1426 cal BC (HAR-8182) and has been dated on typological grounds to approximately the 10th to 9th centuries BC (Hamilton 1993). The Thundersbarrow Hill Late Bronze Age assemblage includes fossil shell wares which in the Late Bronze Age assemblage from the pre-enclosure and enclosure phase at Bishopstone have a thermoluminescence date range of 1250–650 BC. The Yapton Late Bronze Age assemblage includes convex jars with bevelled rims and shouldered bowls comparable to those from Knapp Farm and has a 824–777 cal BC (HAR-7038) date (Hamilton 1987). Collectively this would suggest that the Knapp Farm assemblage falls with the 10th–8th centuries BC. The assemblage therefore belongs within the earliest post-Deverel-Rimbury Late Bronze Age and is prior to the latest Late Bronze Age decorated assemblages dating to *c.* 750–600 BC. The latter include the West Sussex hillfort assemblage of Chanctonbury Ring and Harting Beacon (Hamilton 1993).

THE IMPORTANCE OF THE KNAPP FARM ASSEMBLAGE

Although the Knapp Farm assemblage is small, it is important because it contains a range of associated Late Bronze Age forms. Sussex lacks well-stratified Late Bronze Age assemblages and until relatively recently Plumpton Plain B was the only securely stratified assemblage which could be ascribed to this phase (Barrett 1980; Cunliffe 1991, 63). A series of Sussex assemblages belonging to the earliest post Deverel-Rimbury Late Bronze Age have now been isolated (Hamilton 1993). For Sussex as a whole, the present database comprises some 18 assemblages

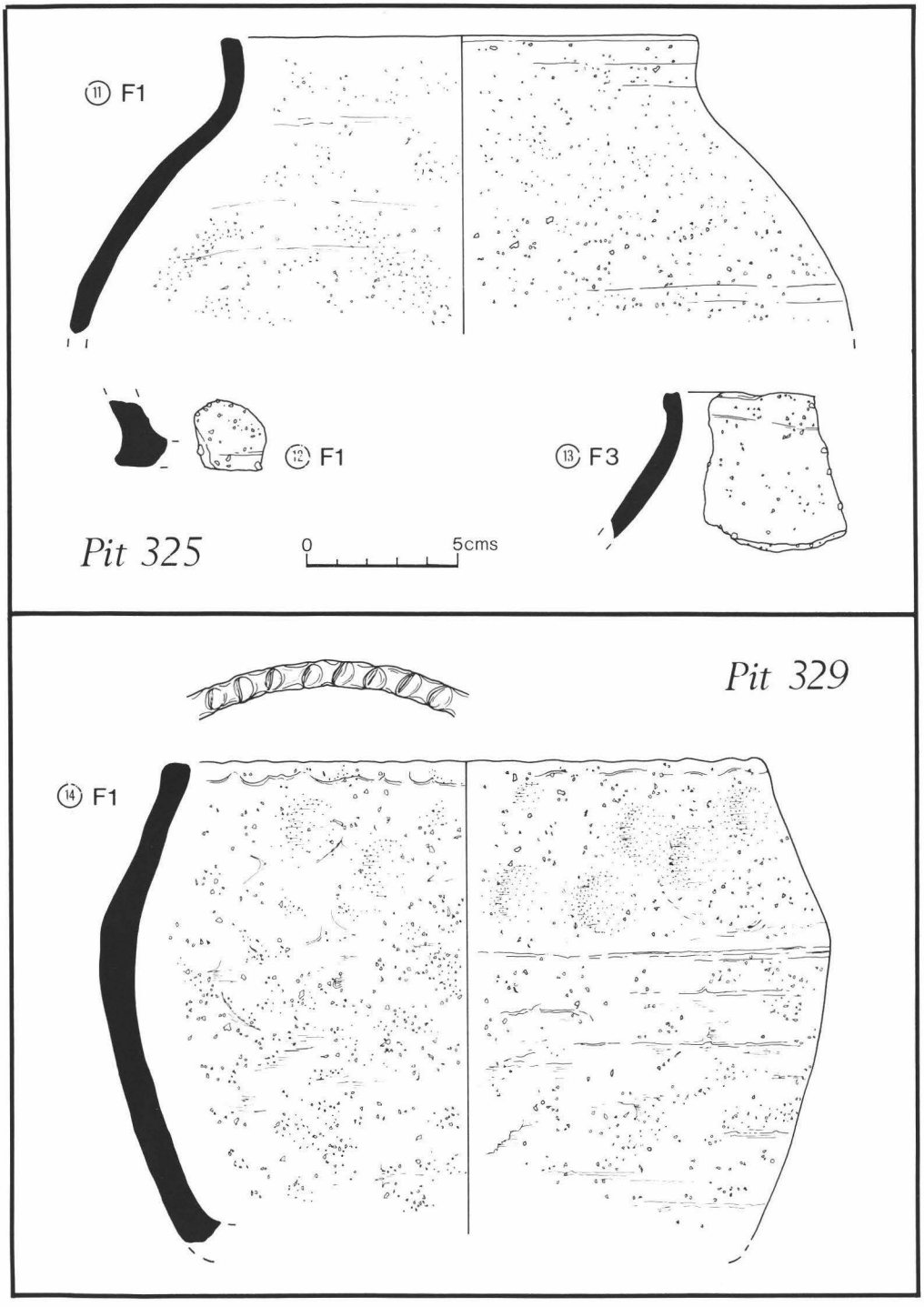

Fig. 9. Knapp Farm. Prehistoric pottery.

(Hamilton 1993). Knapp Farm fills in a significant 'gap' in the distribution map for earlier 1st-millennium BC pottery from the West Sussex coastal plain west of Chichester. The stratified assemblages most comparable to the Knapp Farm assemblage are those from Yapton, also on the West Sussex coastal plain some 15 km east of Knapp Farm (Hamilton 1987), and the enclosure predating the hillfort at Thundersbarrow Hill, near Shoreham (Hamilton 1993).

ILLUSTRATED SHERDS (Figs 8 & 9)
Form/Fabric/Context

1. Plain rim of bipartite bowl; Fabric Fl; context 30, layer below topsoil.

2. In-turned rim, with slight bevel on the interior, of convex jar, Fabric F1; context 110, fill of pit 109.

3. Plain shoulder sherd from jar or bowl, vertical finger-smearing above the carination; Fabric F1; context 110, fill of pit 109.

4. Plain rounded rim of bipartite bowl; Fabric F2; context 124, fill of pit 123.

5. Flat-topped rim from shouldered jar or bowl; Fabric F1; context 124, fill of pit 123.

6. Body sherd with part of its exterior surface flaked off in a manner which suggests the original presence of an incised horizontal groove: Fabric F1; context 124, fill of pit 123.

7. Splayed base with flint-gritted underside; Fabric F1; context 124, fill of pit 123.

8. Body sherd with oblique finger impression; Fabric F1; context 124, fill of pit 123.

9. Body sherd with vertical finger-smearing; Fabric F1; context 127, fill of pit 126.

10. Flat, rounded base with flint-gritted underside and traces of vertical smearing on the exterior; Fabric F1; context 127, fill of pit 126.

11. Out-turned, rounded rim and shoulder sherds from round-shouldered jar; Fabric F1; context 326, fill of pit 325.

12. Splayed base; Fabric F1; context 326, fill of pit 325.

13. Out-turned finger-impressed rim sherd from shouldered bowl; Fabric F3; context 326, fill of pit 325.

14. Shouldered bowl with finger-impressed, 'pie crusted' rim. Evidence of finger-pressing shoulder carination and finger-smearing carination; Fabric: F1; context 330, fill of pit 320.

OTHER FINDS

ROMAN POTTERY
By Luke Barber (incorporating comments by Valery Rigby)
A total of 1186 Roman sherds (weighing 11.0 kg) were excavated at Knapp Farm. The vast majority (93.4% by sherd count) consist of fine to coarse sandy wares (fabric groups A–C). Owing to the acid soil the pottery was in poor condition, as at Devil's Ditch (Bedwin & Orton 1984), and few large sherds survived. The aim of this report is to provide both a date range for the excavated features, and a guide to the fabrics and forms present.

The pottery was divided into broad fabric groups based on a visual examination of colour, texture and tempering with a hand lens. Where possible, fabrics or individual sherds were attributed to a source (e.g. Group H to the New Forest). However, some fabric groups, notably A1, undoubtedly contain products from different sources. The fragmented and abraded nature of the majority of the pottery prevented strict classification. All sherds were recorded by context on pottery summary sheets which form part of the archive. The pottery was fully quantified by sherd number and weight (Table 4, microfiche).

The small assemblage spans the 2nd to 4th centuries AD.

The fabric groups
A full description of the fabrics is given on microfiche.

Group A1: grey medium sandy ware
Catalogue nos 4, 9, 10, 11, 12, 14, 16

Group A2: grey fine sandy ware

Group A3: grey coarse sandy ware
Catalogue no. 3

Group B1: oxidized medium sandy ware
Catalogue nos 1, 2, 8, 13

Group B2: oxidized coarse sandy ware

Group C1: black fine sandy ware

Group C2: black medium sandy ware
Catalogue no. 15

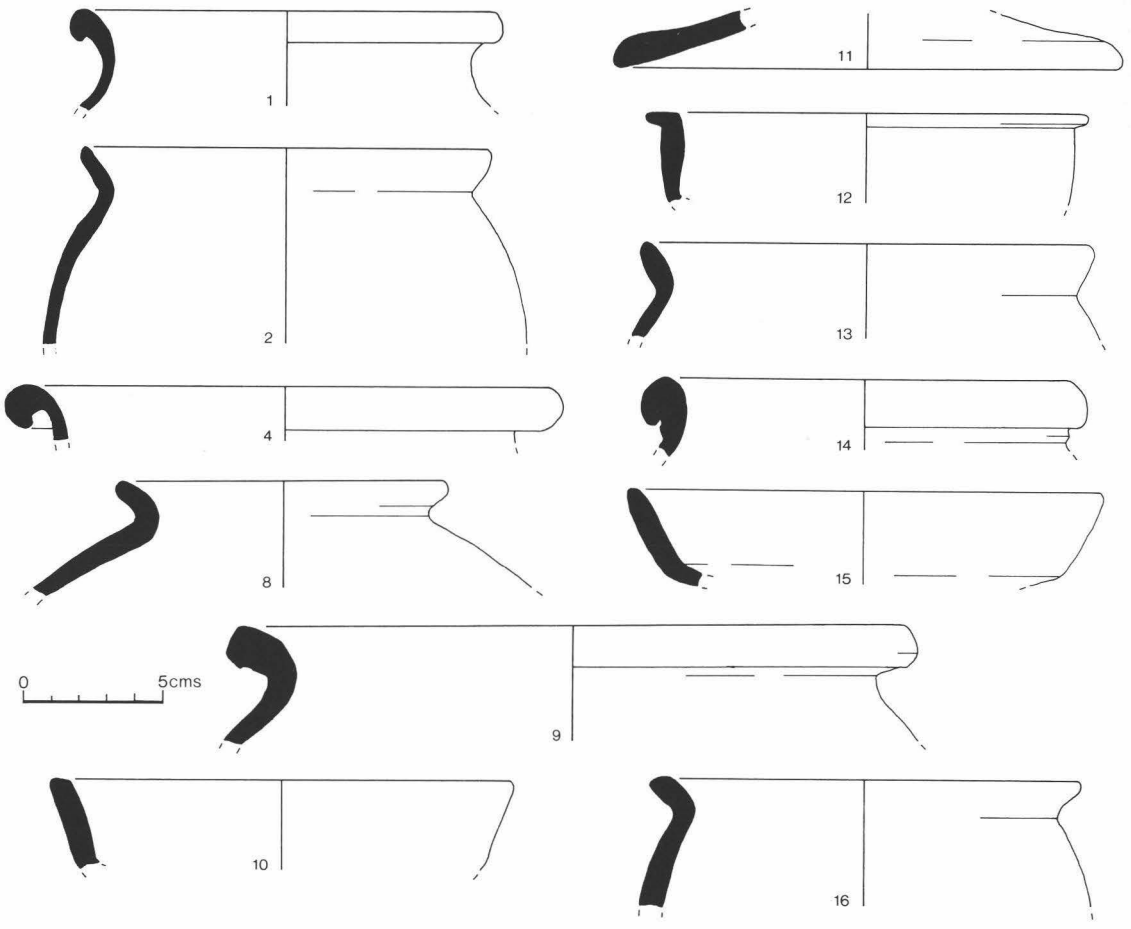

Fig. 10. Knapp Farm. Romano-British pottery.

Group D: medium sand- and chalk-tempered

Group E: amphorae and mortaria
Catalogue nos 5, 7

Group F: grog-tempered ware

Group G: miscellaneous self-coloured finewares

Group H: New Forest ware
Catalogue no. 6

Group I: Samian
The few Samian sherds present are all small and heavily abraded. None are large enough to identify forms firmly. Most appear to be central Gaulish. 2nd century.

Catalogue (Fig. 10)

1. Plain-necked jar with undercut rim. Group B1. 2nd to 3rd century (trench A, pit 103, fill 101/108: cremation vessel).

2. Jar with simple everted rim. Group B1. 2nd to 3rd century (trench A, pit 103, fill 108).

3. Not illustrated. Storage jar with bead rim and internal thumbing. Group A3. Form as Fishbourne type 391. Rowlands Castle? 2nd to 4th century (trench A, layer 100, ploughsoil).

4. Wide-mouthed bowl/jar with hooked rim. Group A1. Late 2nd to early 3rd century (trench A, layer 102, lower ploughsoil).

5. Not illustrated. Mortarium base sherd (Group E) in fine buff fabric. Rounded and sub-angular multicoloured grits on interior (*c.* 1–3 mm). Oxford ware (?) 4th century (trench E, layer 32, ploughsoil).

6. Not illustrated. Decorated body sherd from a colour-coated

narrow-necked/globular beaker. Group H - New Forest ware. Fine buff ware with black colour coat and white painted decoration. 4th century (trench F, layer 307, lower ploughsoil).

7. Not illustrated. Amphora body sherd (Group E) in soft sparsely sand-tempered dull orange fabric. Dr 20. Spanish (trenches F & G, layer 300, ploughsoil).

8. Narrow-necked jar with everted rim. Group B1. 2nd to 3rd century (trenches F & G, layer 300, ploughsoil).

9. Large storage type jar with out-turned thickened rim. Group A1. 2nd to 3rd century (trenches F & G, layer 300, ploughsoil).

10. Dish with flattened rim. Group A1. Burnished internally. Late 2nd to 3rd century (trenches F & G, layer 301, lower ploughsoil).

11. Lid with simple rim. Group A1 (layer 301).

12. Dish/bowl with horizontal rim. Group A1 (layer 301).

13. Jar with simple everted rim. Group B1. 3rd century (layer 301).

14. Jar with thickened hook rim. Group A1. White slip on rim. Alice Holt. (*cf.* type 3C.4 Lyne & Jefferies 1979, 43). 3rd to early 4th century (layer 301).

15. Dish with simple rim. Group C2. Late 2nd to 4th century (trench G, layer 322).

16. Everted rim jar. Group A1. Rowlands Castle? 3rd to 4th century (trench G, pit 302, fill 303).

THE FLINT

By Robin Holgate

A total of 190 humanly-struck flints were recovered from the excavations (Table 5, on microfiche). The excavated flints came either from the surface of the subsoil (307) or from the fills of pits dating to either the later Bronze Age or the Romano-British period (for further details, *see* microfiche Table 6). This material can be divided into two groups: flints of Mesolithic date and those of the late Neolithic/Bronze Age.

The Mesolithic assemblage

The raw material is dark grey, brown, light brown and orange flint; cream cherty mottles are occasionally present. Just over half the flints have thin abraded cortex and a small proportion have blue-white patination. The flint has few latent frost fractures, and consists of small, good quality flint nodules that had been carefully selected from Brickearth deposits on the Coastal Plain. Although none of the flints could be refitted, a study of similarities in colour and cortex suggest that at least ten nodules were flaked.

Blades and bladelets with minimal butts were detached from double and single platform cores (e.g. Fig. 11:9 & 10), mainly using a soft hammer. Platforms were prepared before each blade or bladelet was detached from the core by abrading the platform edge. Flaked surfaces on some cores were also prepared by cresting (Fig. 11:11). New platforms were created by detaching core tablets (e.g. Fig. 11:12).

Implements included a number of blades with retouch along one edge (Fig. 11:2, 3 & 4), one of which could be classified as a microdenticulate (no. 6). Truncated bladelets (nos 8 & 13) and a geometric microlith (no. 14) were also present. The microlith, a small scalene triangle, would suggest a later Mesolithic date for at least part of the assemblage (Jacobi 1978, 19).

The Mesolithic assemblage was not found *in situ*; most flints derive from Late Bronze Age or Romano-British deposits. Furthermore, the lack of refits suggests that only a sample of the flintwork originally discarded on the site was retrieved from the excavated areas. Assuming that the sample is representative of the activity that originally took place here, the absence of tranchet axes and axe-sharpening flakes, scraping tools and burins indicates that this was a temporary camp where a restricted range of tasks were performed. This is only the third excavation of a later period site on the Sussex Coastal Plain to produce a significant Mesolithic assemblage; the others are North Bersted (Pitts 1980, 155–9) and Fishbourne (A. Down & D. Goodburn pers. comm.). Further Mesolithic flintwork, notably that retrieved from the later Mesolithic site at Hammerpot (C. Ainsworth, J. Sayles & R. Jacobi pers. comm.), has been amassed from numerous places by surface collection (Pitts 1980). Despite the minimal archaeological reconnaissance that has taken place, the large number of Mesolithic findspots suggests that the Sussex Coastal Plain was heavily exploited at this time. Favoured locations for Mesolithic activity appear to have been alongside watercourses and on the crest of higher areas of land.

The later Neolithic/Bronze Age assemblage

The remaining flintwork consists of small nodules of grey or brown flint of varying quality, which was flaked using hard hammers to produce wide-butted flakes. The only implements include scrapers (Fig. 11:1 one of which had been used for scraping wood, *see* below), single-edge retouched pieces (no. 7), a notched flake and a miscellaneous retouched flake (no. 5) (Table 5, microfiche). The restricted range of implements present in this group of flints would be consistent with a later Bronze Age domestic assemblage, although it should be added that the techniques used to fashion these flints were in use from the later Neolithic period onwards. Some of the flintwork was found in association with later Bronze Age pottery, but the fact that only a sample of the site was excavated makes it difficult to interpret both the nature and extent of the later Bronze Age occupation, and whether or not any activity took place here in the later Neolithic period.

USE-WEAR ANALYSIS

By Roger Grace

Seven of the flint implements were examined under a microscope for traces of use wear. The Mesolithic flints included a microdenticulate (no. 6), two single-edge retouched blades (nos 2 & 4) and an abruptly retouched blade (no. 3), and the later Neolithic/Bronze Age implements consisted of an invasively retouched scraper (Fig. 11:1) and two single-edge retouched pieces (nos 5 & 7). A detailed description is housed with the archive.

Apart from the scraper (no. 1), which was probably used to work wood, the flints have no clear evidence of use. Two of the single-edge retouched pieces (nos 4 & 5) have edge development consistent with use, but the presence of post-depositional surface modification precludes any further interpretation. Another of the single-edge retouched blades

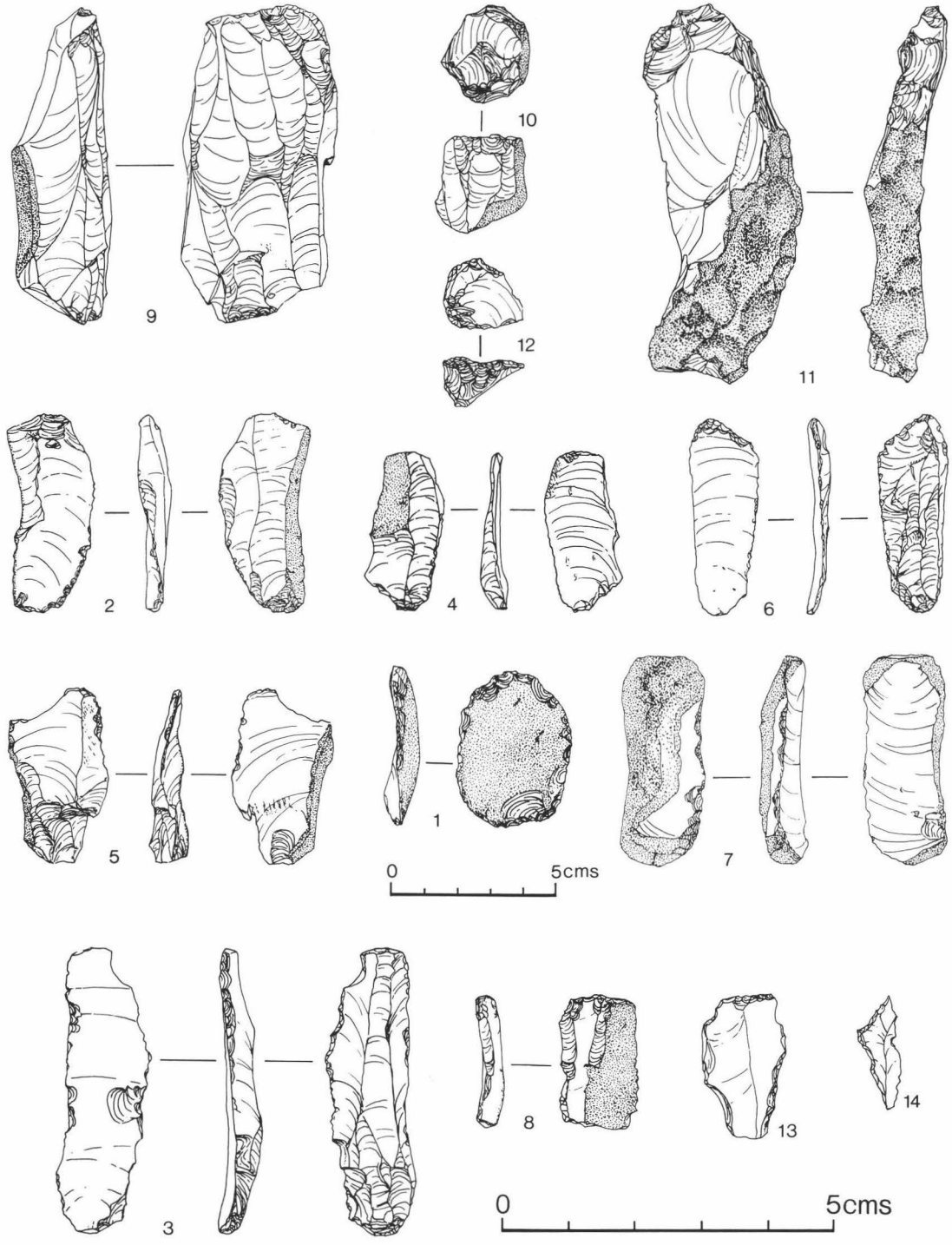

Fig. 11. Knapp Farm flintwork: Mesolithic flintwork: 2, single-edge retouched blade; 3, abruptly retouched blade; 4, single-edge retouched blade; 6, microdenticulate; 8, truncated blade; 9, double platform core;10, single platform core; 11, crested blade; 12, core tablet; 13, truncated blade; 14, geometric microlith. Later Neolithic/Bronze Age flintwork: 1, scraper; 5, single-edge retouched flake; 7, single-edge retouched blade.

(no. 2) has gloss which is post-depositional in origin and, therefore, not wear polish. The microdenticulated blade (no. 6), the abruptly retouched blade (no. 3) and last of the single-edge retouched blades (no. 7) have no evidence of use, but the presence of post-depositional surface modification means that they may have been used, and that any evidence for use has been obscured. With this kind of material, only tools that have been used extensively will retain use-wear evidence.

DISCUSSION

By Mark Gardiner

The Mesolithic flintwork found at Knapp Farm has reinforced the suspicion that the Coastal Plain was widely used during that period. Its position on a rise above a small stream which ran to the west of the site is typical of many Mesolithic finds in the area and is repeated further west near Newells Lane where another excavation during the road survey found further flintwork, albeit in a secondary position.

The later flintwork may be associated with the Late Bronze Age domestic activity, as the discussion above has indicated. The nature of the remains of that period are not entirely clear. At both Knapp Farm and further east at Yapton the pits were dug and were rapidly filled with pottery and other rubbish. The main difference between the two sites is that while at Yapton (Rudling 1987) the pottery had been exposed to weathering before deposition, at Knapp Farm the pots were dumped directly in the pits. The most difficult aspect of both sites is that they lack a broader archaeological context. Excavations were very limited in extent at Yapton and although a larger area was dug at Knapp Farm, the pits lay on the edge of the area examined. If we are to understand the significance of such pits, they need to be related to other activity areas in which cooking, sleeping and craftwork took place. Were these functions taking place nearby, or was the rubbish removed some distance before deposition? There is insufficient evidence to answer that question at present. The excavation at Knapp Farm revealed very little of the site economy. Bone did not survive in the acidic soils. The range over which resources were gathered is suggested by the presence of pebbles among the burnt flint indicating the possibility of greater littoral exploitation.

No evidence was found in the excavated trenches for the ditch of the possible Chichester Dyke. The precise line of the dyke near the excavations is difficult to trace on the aerial photographs and it could be that the trenches were not correctly situated over the line of the ditch. The presence of a further arm of the Chichester Dykes here would be consistent with the pattern elsewhere. The course of supposed bank and ditch would run across the top edge of a valley and towards a stream, so cutting off the western approach to the area enclosed by the Dykes. However, there remains the problem that the ditch is on the south-east side of the bank and that thus the embankment appears to face the wrong way. An alternative explanation for the absence of any excavated remains may be that the admittedly poor aerial photographic evidence may have been wrongly conflated with the short length of earthwork at Miller's Ash. There may have been no Dyke here.

The excavation indicated the presence of a probable Roman farm of 2nd- to 4th-century date, but nothing of its character. The interest of the site is its proximity to the Roman palace of Fishbourne which lay east-south-east less than two kilometres away. The palace estate could have been entirely farmed from a home farm at the palace, or might have been exploited by means of a series of satellite farmsteads, of which Knapp Farm could be one example. Further work on the distribution of Roman sites in the Fishbourne area might elucidate that problem.

The final phase of activity is represented by a small number of medieval features. Documentary study summarized in the archive report allowed the identification of a number of medieval tenements in the vicinity of Knapp Farm, all lying beyond the area of open fields around Old Fishbourne village. Knapp Farm was one of the more substantial holdings and it survived as other farmsteads were abandoned.

Acknowledgements

Mark Gardiner is indebted to the many landowners who allowed him to work on their land, and particularly to Mr H. G. Heaver who enabled him to dig at Knapp Farm. Robin Turner acted as site assistant in 1984. The illustrations of the artefacts are by Lys Drewett, Jane Russell and Luke Barber and some of the plans were drawn by Jane Russell. The excavations, fieldwork and the post-excavation work were funded by English Heritage.

The finds and site records from field-walking

between Fishbourne–Havant have been deposited in Chichester Museum (acc. no. 6085) and the finds from the Knapp Farm excavations have been placed in Fishbourne Roman Palace (KF84, KF85).

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