EXCAVATIONS IN TANYARD LANE, STEYNING, 1977

by *D. J. Freke, M.A.*

In February and March 1977, an area west of Steyning parish church was excavated prior to redevelopment. Previous excavations in 1962-3[1] *and 1967-8*[2] *to the south and south-west of the church produced evidence for late Saxon and medieval occupation, and it was suggested that the late Saxon town was centred on the church*[3]*. The 1977 excavations revealed no structures of the late Saxon or medieval periods, but there was evidence of occupation and industrial activity in the vicinity.*

INTRODUCTION

The site was notified to the Sussex Archaeological Field Unit by Fred Aldsworth, Archaeological Officer of the West Sussex County Council. Permission to excavate was negotiated through Churchman Burt and Son, and thanks are particularly due to Mr. N. Hamilton for his help and co-operation. The excavation took place perforce at an uncomfortable time of year, and I am indebted to my principal assistants: Martin Howe, B.A., Ian Blair (on whose work Fig. 4 is based) and Jill Craddock, B.A., who organised the Finds Shed, as well as to Frances Griffith, Guy Lester, John Thompson, Mike Welsh, Lawrence Buckley and Howard Hill (on whose survey work Fig. 2 is based). Valuable help was also given by local volunteers. I am indebted to Jill Turner, who found us all essential accommodation, and to Mrs. McNiel who gave us access to the site across her land, and who allowed us to investigate and survey the earthworks in her garden. Tim Hudson, M.A., of the West Sussex Record Office, kindly allowed me to read the typescript of his entry on Steyning for the Victoria County History of Sussex before its publication. I would like to thank T. P. O'Connor, B.Sc., P. Hinton, D. Butler, B.Sc., and C. Cartwright, M.A., for their specialist reports. Finally, I would like to thank P. L. Drewett for his comments on the draft of this report, and C. Page who patiently typed it.

HISTORICAL BACKGROUND[4] (Fig. 3)

A port has existed on the River Adur since the Saxon period, and prior to 1066 this appears to have been St. Cuthman's port at Steyning. The harbour may have been on what is now a creek north of St. Andrew's church,[5] the river having changed its course since the medieval period. By 1086, silting of the tidal marshes had stimulated the growth of the port of Old Shoreham nearer the river mouth, and continued deposition led to the founding of New Shoreham in about 1100. Nonetheless, in a document of 1103 there is a complaint that ships were being impeded by a bridge at Bramber,[6] implying that up to that date at least, Steyning was still accessible to shipping. A Saxon mint was established at Steyning in 1018 when the Cissbury mint ceased, suggesting that Steyning was fully urban by the eleventh century. It may have had urban status before this date, despite not being included in the tenth century Burghal Hidage.[7] The Domesday Book records that the town contained 118 houses in 1066 and 123 houses in 1086. The present High Street extends

across a promontory formed between two tributaries of the Adur, with Church Street extending northwards to the late Norman church. It has been suggested that the High Street is an area of secondary medieval growth, caused by a re-alignment of roads focussed on Bramber bridge and the abandonment of the harbour (note 3). Certainly the surviving timber-framed buildings are concentrated along the High Street with a few along Church Street.[8] It was this suggestion that the excavation was designed to investigate in an area only 125 m from the west end of the church.

THE EXCAVATION

The site is on a gentle north-facing slope at the foot of the scarp of the Downs (Fig. 1). The geology is Lower Chalk, and the lowest bed of the series, a green glauconitic sandy marl, outcrops in the north-west corner of the trench, overlain to the south by a grey marl.[9] The site is bounded on the west and north by sunken ways, on the east by a surviving medieval house, and on the south by a sixteenth-century house.[10] Before excavation, the area was occupied by an orchard, and the slope was visibly terraced (Fig. 2). These terraces or platforms with their proximity to the sunken way, medieval house and church, suggested that they might be house platforms and so the opportunity was taken to check their origin.

A machine trench 1m wide was cut down the length of the site from south to north to see if any evidence of walls survived. When this failed to reveal anything structural, the largest accessible 'platform' was stripped by machine down to medieval layers, and then excavated by hand. Inclement weather in February made work so slow that the eastern portion of the 'platform' was not excavated below the machine scrape, and some of the features in the western portion were half sectioned. Nonetheless, the nature of the site was clearly revealed.

The area had been an orchard, and before that, in the nineteenth century, a cattle market.[11] Documentary and archaeological evidence suggests that from the fifteenth century to the nineteenth the site had been a croft.[12] It is to this period that the terraces belong. They are probably horticultural rather than agricultural. In the late medieval period, a number of pits were dug in the area of our trench (Figs. 4 and 5, nos. 27, 89, 111, 113, 132, 133, 145, 148 and 157). These are assigned to the late medieval period on the basis of the pottery. Most of these pits are near the southern end of our trench and are presumably the rubbish pits of a dwelling to the south of the excavated area and the machine cut slot. There were many more earlier medieval features (Figs. 4 and 5, nos. 6, 7, 15, 16, 17, 18, 19, 36, 37, 38, 45, 48, 49, 54, 55, 57, 59, 66, 86, 95, 96, 105, 108, 110, 124, 164, 167, 168, 174, 177). There are also two boundary ditches at the north end of the site (features 16 and 19), one of which had been recut (feature 88). Again, the dating of these features depends solely on the pottery, except in the case of number 96, which produced a spur (Fig. 5, no. 15) dated to before the middle of the twelfth century (report below).

The features 37, 38, 45, 48, 167, 174 and 177 cut through an area of very rough flints, which could hardly be called cobbling, but which was perhaps merely hardcore (feature 40). This produced fragments of bun-shaped loomweights and a pair of iron shears (Fig. 6, no. 14), whose style has a date range from the eleventh to the thirteenth century (report below). Feature 40 contained a higher proportion of pottery with coarse fabric than did feature 96 and the others listed above (Table 1) and is tentatively dated to the eleventh or early twelfth century. The boundary ditch (feature 16) cuts feature 44, which contained a good example of Saxo-Norman pottery (Fig. 5, no. 8), and very few sherds of finer fabric. The other possible Saxo-Norman feature is number 28 (Table 1).

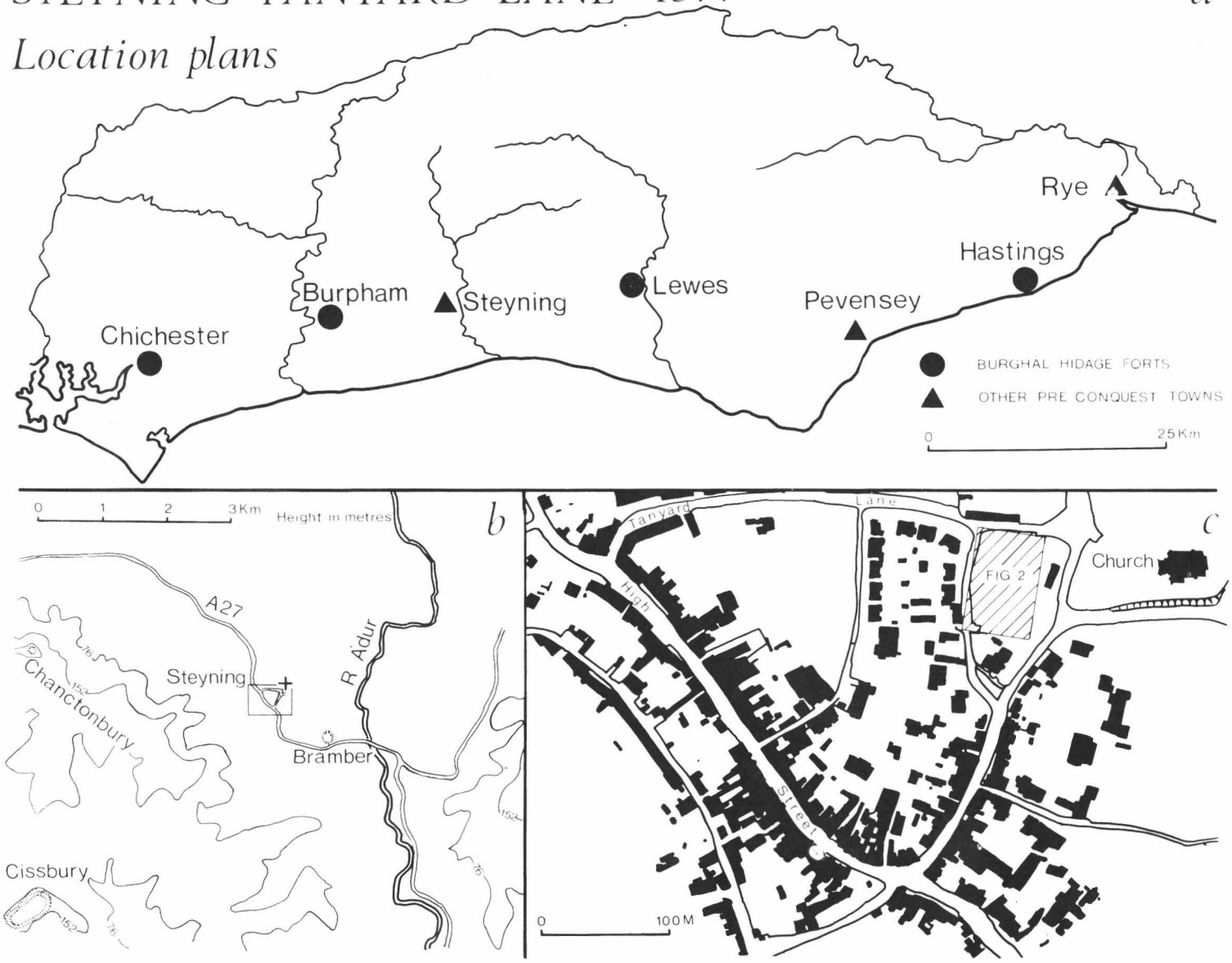

Fig. 1. Steyning, Tanyard Lane, 1977. Location Plan.

Fig. 2. Steyning, Tanyard Lane, 1977. Location of trench and earthworks.

Features 10, 123, 126 and 162 produced very coarse pottery with virtually no sherds of finer fabrics present. These are possibly middle to late Saxon pits, although the pottery samples are small and may reflect the specialised industrial nature of the fill of these features. They all contained quantities of iron slag derived from forging (report below by David Butler).

Earlier periods were represented by a few residual sherds of Romano-British pottery and a fragment of Roman roof tile (in feature 28) and a scatter of flintwork (ten flakes and two scrapers). There was no evidence for occupation in the vicinity before the middle to late Saxon period, but the area seems to have been on the edge of continuous occupation until the late medieval period. Chantry Green House, to the south, was built in 1525,[13] although there may have been an earlier abandonment of our site by 1469 as noted above.

CONCLUSION

The excavation shows that there was occupation in the vicinity of our trench from at least late Saxon times to the late medieval period. It is difficult to establish the exact proximity of the medieval dwellings, whose inhabitants originally dug the features in our trench. The lack of wells or cess pits suggests that medieval houses may not have been any nearer than the surviving medieval cottages 50m to the east, and Chantry Green House 60m to the south. This situation contrasts with the late medieval structures found in 1962-3 just south of the church and with the reported density of occupation debris found 150m south of the church in 1967-8. It appears that the present site has always been on the outskirts of Steyning. Whether the town really moved from a primary settlement centred on the church to the present High Street remains a difficult problem. The evidence from the two previous excavations, on purely archaeological grounds, seems to indicate the reverse, with earlier material, including a coin of Edgar (A.D. 959-975), found further away from the church than the later medieval house platforms just outside the churchyard. On topographical grounds, however, it remains a probability, and the evidence from the 1977 site does suggest a progressive abandonment in the later medieval period. It may be that earlier occupation was denser to the east of Church Street, but without more evidence from there and elsewhere in the town, these conclusions can only be tentative.

The economy of late Saxon and medieval Steyning is hinted at in the iron slag, loomweights, bones, environmental evidence and pottery.

The iron slag was found in quantities only in the middle to late Saxon contexts, and this shows that iron forges were working in the neighbourhood at that time. Late Saxon iron working on the outskirts of settlements can be paralleled in Lewes and Burpham where iron slag has also been found in 'early' contexts.[14] This may show early 'zoning' of dirty occupations in towns, although excavated evidence from town centres in Sussex (except in Chichester) is still lacking. It may also indicate that after the early medieval period, forging was carried out at or near the sites making the iron in the Weald, and the iron trade into towns was in the more economically transported form of wrought iron rather than in blooms. More work needs to be done to test this suggestion, and it may be that in the unexcavated areas of Steyning, Lewes and other Sussex towns there lies buried the evidence for later medieval urban iron working.

The loomweights are more difficult to categorise as evidence of an 'industry' beyond the domestic sphere, and there is no archaeological evidence to show that weaving was particularly highly organised or zoned in Sussex towns. The only Saxon specialised weaving hut found in Sussex was in a village, Old Erringham.[15]

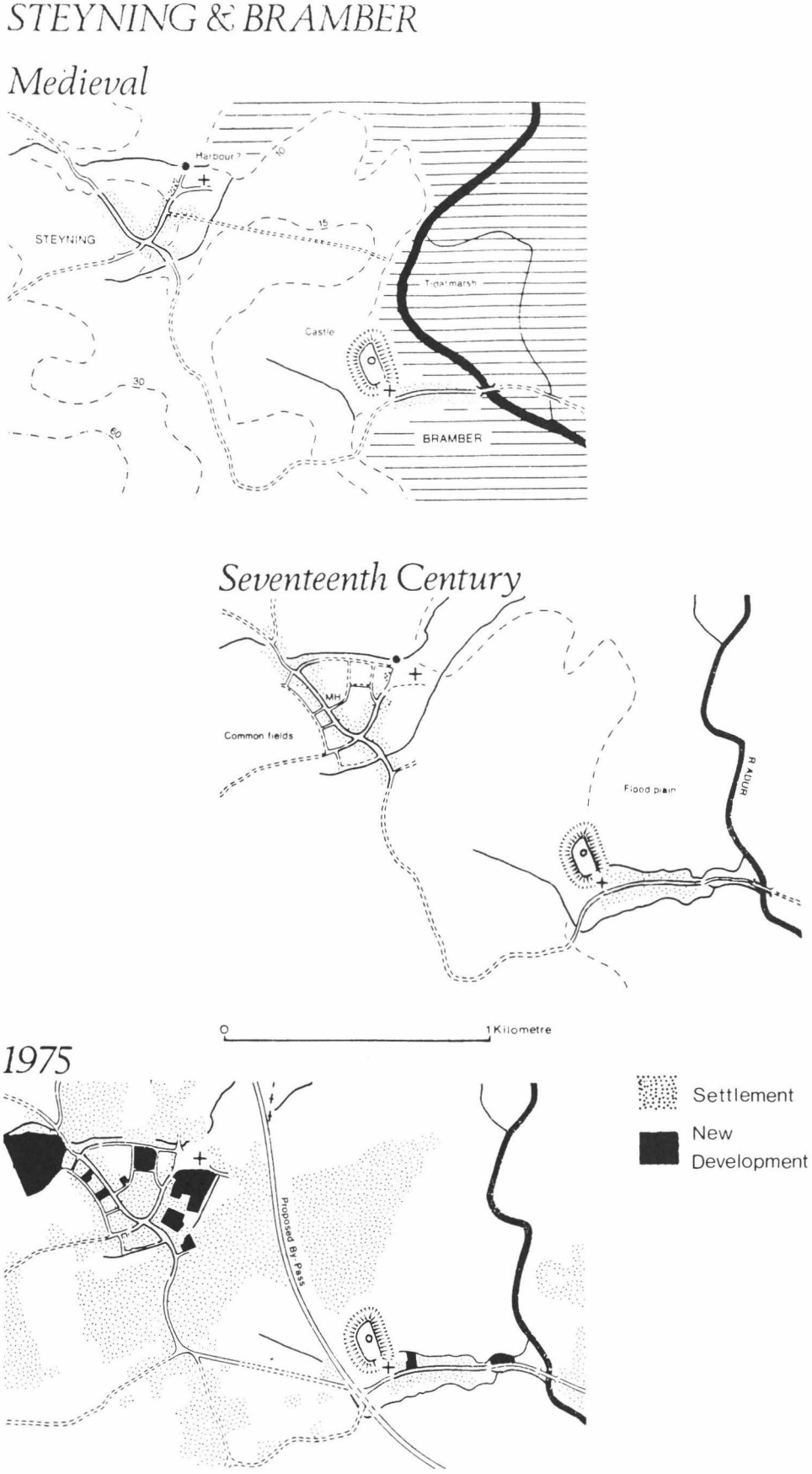

Fig. 3. Steyning, Tanyard Lane, 1977. The historic development of Steyning (taken from F. Aldsworth and D. Freke, *Historic Towns in Sussex* (1976) 58).

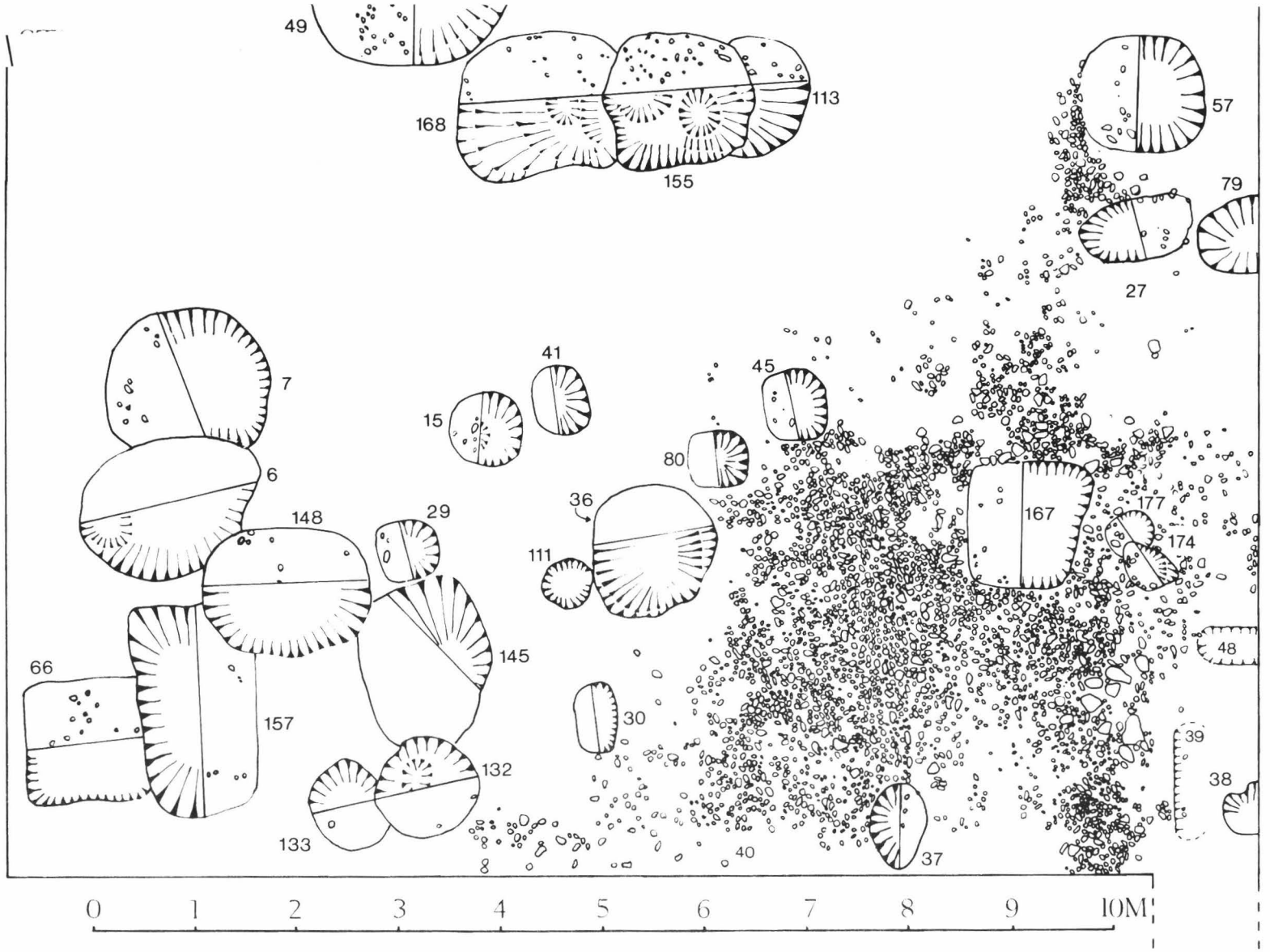
49
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Figure 6. The pottery

1. Cooking pot, dense medium flint filler with some larger inclusions, dark grey surfaces and core. Calcium carbonate deposits inside and soot outside. Layer 77 in feature 28.
2. Rim, fine flint filler with some larger inclusions and a little shell. Buff surfaces, pale grey core. Layer 77 in feature 28.
3. Rim, dense medium to coarse flint filler (1-3mm), buff surfaces, grey core. Feature 95.
4. Rim, medium flint filler, grey internal surface, buff external surface, grey core. Feature 48.
5. Rim, dense medium flint filler, dark grey surfaces and core. Layer 72, part of 40.
6. Rim, medium flint filler with voids caused by burnt out chalk filler, patchy buff and grey. Hand made or slow wheel. Feature 59.
7. Rim, medium flint filler with some larger flint inclusions (2-3mm), patchy buff and grey on surface, grey core. Feature 59.
8. Rim, medium flint filler with a few larger inclusions (2mm), pale grey surfaces and core. Layer 104 in feature 44.
9. Rim, coarse flint filler (3mm), patchy buff and grey. Hand made. Layer 118, part of 40.
10. Rim, fine flint filler with some shell, orange-buff surfaces, grey core, incised decoration. Layer 122 in feature 113.
11. Rim, coarse flint filler (2-4mm), grey surfaces and core. Layer 161 in feature 96.
12. Rim, coarse flint filler, grey surfaces and core. Feature 54.

Domestic Finds

The whetstone fragments are all sandstone.

The quern fragments are all sandstone except one from feature 40: Fig 6, no. 13. Quern of coarse grits, typically 2-3mm, but up to 6mm across.

The lava quern fragments are Mayen or Niedermendig lava. None is large enough to show the cross section or shape of the original stone.

The loomweight fragments from features 40 and 174, are the later bun-shaped type, with a radius of 5-7cm where identification was possible, and a hole of radius 1-1.5cm. The loomweights could perhaps be considered in the 'industrial' category, given the evidence at Old Erringham for the provision of specialised structures for this activity, but failing such clear cut evidence here, it is listed as domestic.

Bones should also come into the domestic category.

Industrial Finds

Despite the iron slag being listed as a total number of fragments per feature and not weighed, the large groups are clearly indicated. Three features (nos. 10, 123 and 126) contained slags which are derived, in part at least, from iron forging (report below). Another feature, no. 22, contained much burnt stone, and charcoal from different species to that found in the features containing slag. All features (except 22, which contained no datable artifacts) produced pottery fabric groups heavily weighted towards the coarse types, and it is possible that these features are evidence for late Saxon iron working in the vicinity of our trench. This evidence is matched in Lewes, where slag and an oven were found on the edge of the town.[21]

Burnt stones include flint and sandstones. There is no way of determining what sort of fire, domestic or industrial, caused the burning. The stones do not seem necessarily to be associated with iron slag, and their ubiquity may indicate a domestic source, except that they do not seem necessarily to be associated with large pottery groups either.

'Daub' can be furnace or stove lining as well as the debris from burnt wattle and daub structures. Barton has drawn attention to recent examples of houses of wattle and daub which, when burnt down, did not produce such a well-fired clay as daub.[22] He suggests that it is more likey to be derived from furnaces or ovens. However, Coles cites several instances where 'daub' *was* produced by burning houses,[23] so fired clay, even with wattle impressions, cannot be used as indisputable evidence for either ovens or buildings exclusively, but could be from either. In some cases on our site it does seem to accompany iron slag (features 49, 96, 126) but elsewhere there is slag with little or no fired clay or fired clay with no slag.

Miscellaneous Finds

Building materials include brick, roof tile, floor tile, slate, roof furniture, mortar and dressed stone. Details are archived with the finds.

Small Finds (Fig. 6)

14. Iron shears. Type 1B in the medieval catalogue of the London Museum.[24] The loop at the junction of the two arms is a feature which first appears in the tenth century in Scandinavia, but is generally later. The simple form of the shoulder of the blades is dated from the eleventh to the thirteenth centuries. A similar pair of shears is illustrated from Chichester.[25] Layer 118, part of 40.
15. Iron spur? The point and terminals are both too damaged and corroded to be identified. The straightness of the arms when viewed from the side indicates a date before the middle of the twelfth century.[26] Layer 120, feature 96.
16. Iron single buckle. Found with fourteenth century red painted pottery from Beauvais in feature 110.
17. Bone handle. Truncated cone of long bone, roughly carved at its widest into eleven facets. The socket is strongly tapered. Layer 152 in feature 66.

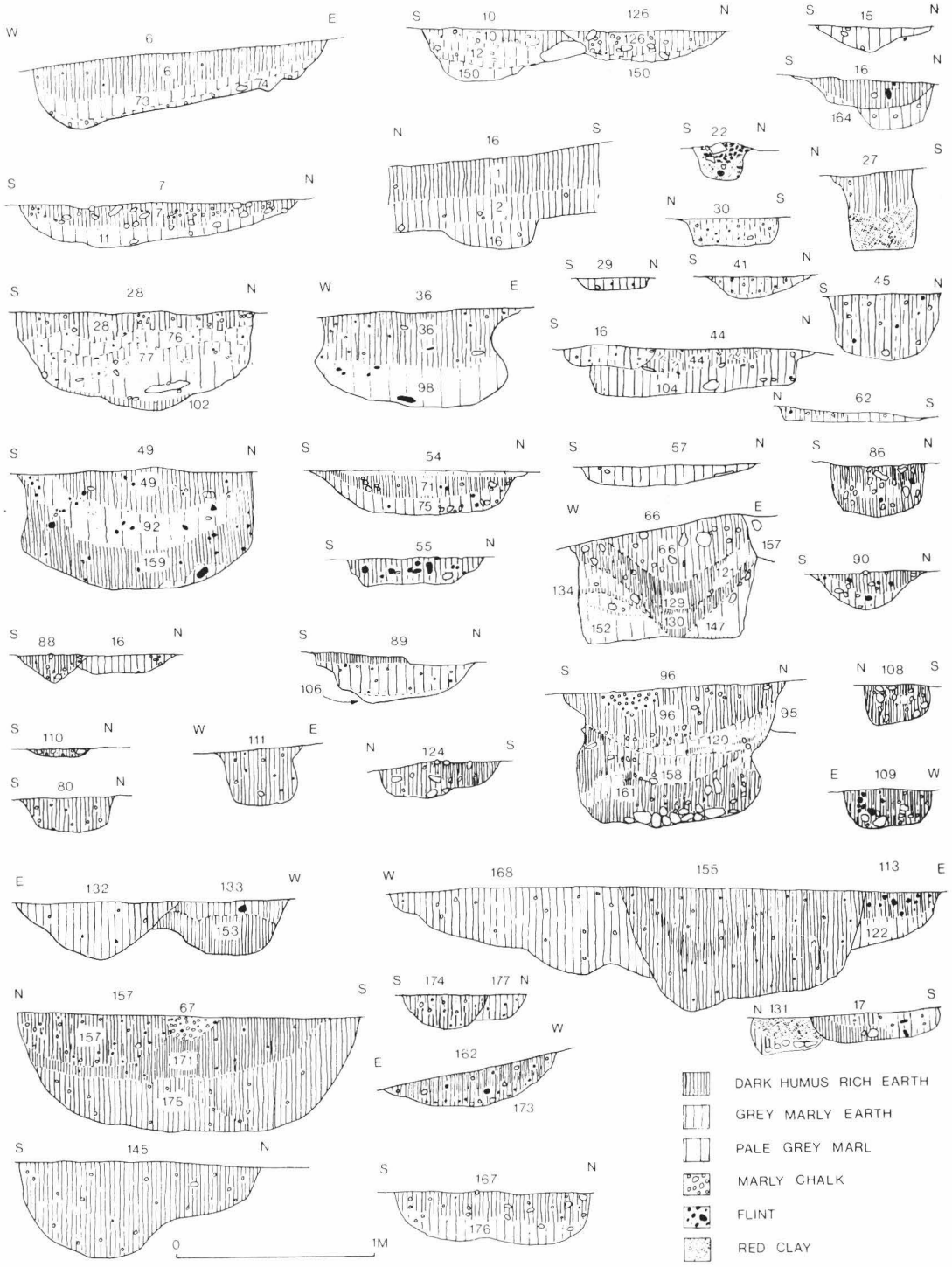

Fig. 5. Steyning, Tanyard Lane, 1977. Pit and post-hole sections.

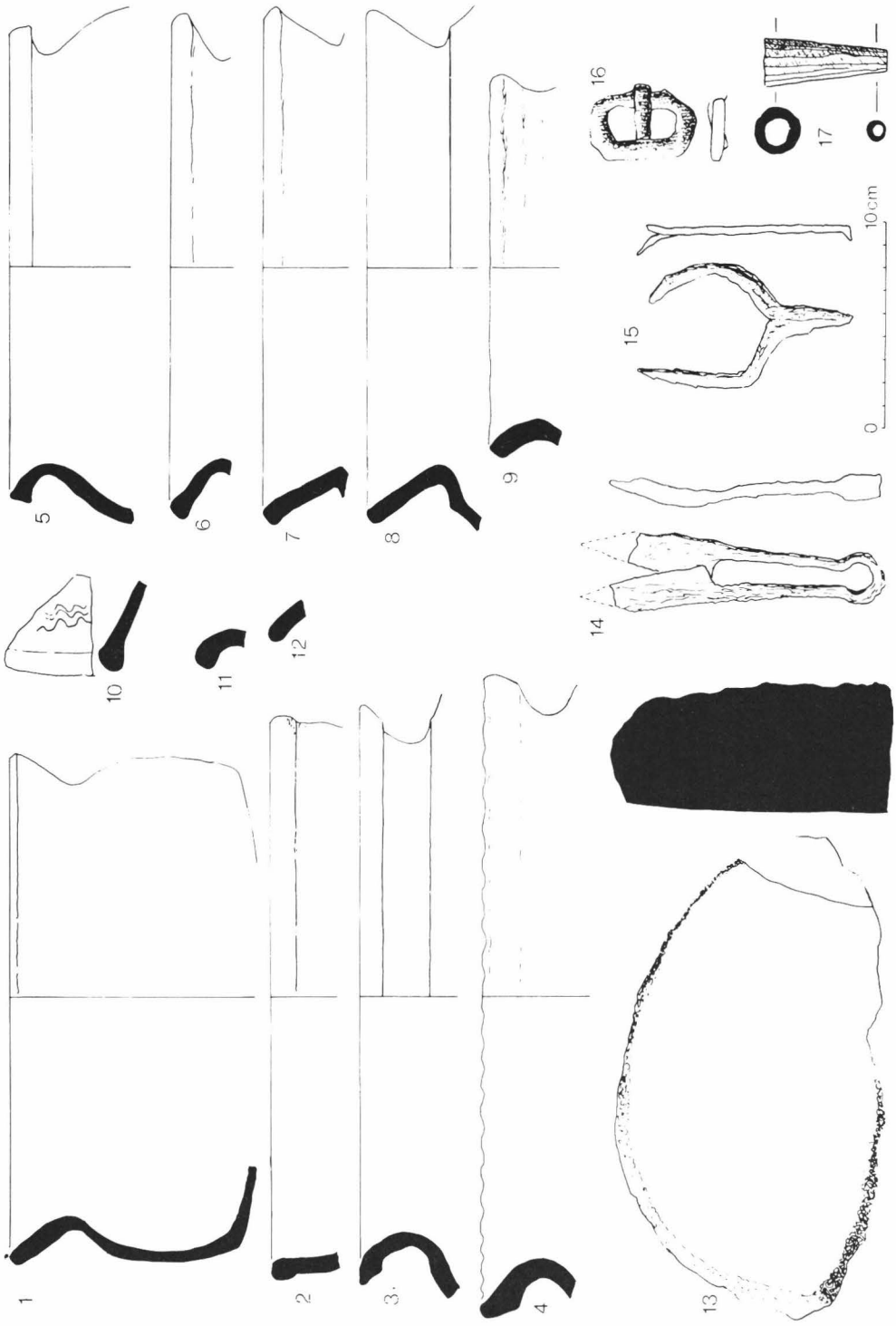

Fig. 6. Steyning, Tanyard Lane, 1977. Finds (¼).

The Examination of the Microstructure of the Iron Slags (D. Butler, B.Sc., Eng. (Met.), M.I.M.)

All the samples examined are iron making slags and seem to be the products of forging rather than smelting operations. The specimen references and sample references are given in Table 2.

Feature 10. Very rough surface with some rust patches. Fracture surface blue black and porous with rust coloured areas.

H58. The friable nature of the specimen made its surface preparation difficult. The photomicrographs show a jumbled mixture of constituents, which is more consistent with slag from a forge than from a bloomery furnace.

H60 (Plate 1). Visual description as H58 above.
A large number of disconnected iron particles are visible in a matrix of slag which has a jumbled structure similar to H58. It is possible that the sample is from the periphery of the bloom and has been subjected to re-heating (partial fusion of the slag?) in a forge hearth.

Feature 126. This group contained samples of ore and slagged clay. The slag itself had a rough blue black surface, sometimes nodular. The fracture surface is blue black and porous, often containing the skeletal slag outline of charcoal and areas of rust.

Table 2

Specimen Ref. No.:	*Sample Ref. No.:*	*Feature No.:*	*Remarks:*
H58	STL 77 (10) (A)	10	Non magnetic
H60	STL 77 (10) (A)	10	Magnetic
H59	STL 77 LF (126) 25.3.77	126	Strongly magnetic—metal core?
H61	STL 77 LF (126) 25.3.77	126	Strongly magnetic—metal core?
H62	STL 77 LF (126) 25.3.77	126	Magnetic—no response to metal detector
H69	STL 77 LF (126) 25.3.77	126	Non magnetic
H63	STL 77 25.3.77 (128)	128	Non magnetic
H64	STL 77 118	40	Non magnetic
H65	STL 77 118	40	Non magnetic

H59. Shows a solid iron core, containing some slag inclusions, which is surrounded by slag of a similar structure to H60. The iron core, when etched with 2% nital, shows a structure of what appears to be granular pearlite, the product of very slow cooling or prolonged heating at *c.*700°C.

H61 (Plate 2). Has a solid iron core, larger than H59, the iron being surrounded by slag similar to H59.
Etching with 2% nital shows most of the core to consist of varying size grains of almost pure iron. Part of the periphery has a higher carbon content and shows ferrite with a Widmanstälten structure and what appears to be granular pearlite. This structure is consistent with the specimen being slowly cooled and not worked.

H62. Shows a jumbled structure of slag constituents difficult to identify. Magnetic response may be caused by presence of magnetite or spinel.

H69. Specimen porous and friable and difficult to prepare a surface suitable for microscopic examination.
Appears to be a jumble of constituents not readily identified by simple examination. It is not normal tap slag and could therefore be a product of forging operations.

Feature 128. Rough nodular surface, blue black colour with some rust patches. Fracture surface is blue black with small and large gas voids and skeletal slag outline of charcoal. Rust patches within sample.

H63. Specimen porous and friable. Shows dendrite wüstite in matrix of fayalite and glass. Could be slag from forging or smelting.

Features	Pottery							Domestic				Industrial				Misc.	
	ROMAN	COARSE	MEDIUM	FINE	SANDY	NO FILLER	IMPORTS	WHETSTONE	QUERN	QUERN LAVA	LOOM WEIGHT	IRON SLAG	BURNT STONE	DAUB OR STOVE LINING	CHARCOAL	BUILDING MATERIAL	SMALL FINDS
6		1	4	66	11							1				8	
7		1	5	64	16							10	1			5	
10		9	2	3								183	2	1	●		
15				5	2												
16		2		98	9							2					
17		1		3	2							2				1	BONE HANDLE
18				2													
19				13												2	
22												2	64	1	●		
27		1		9	9							1					
28	2	4	43	10	2				2	3			1	6		2	
30					1											1	
33				3													
36		10	31	113	2							4		1		2	
37				1												1	
38				3	1							2	1				
40		5	3	10	5			1	1		5		19	5		4	SHEARS
44		1	18	6	1								1	3			
45			1	25	8							4	1	4		2	
49		5	5	343	183							13		10			
54		4		11	3							7	4			2	
55				14	4									2			
57				2	1											1	
59			6	32	7		1							7			
66		4	7	41	23					2	1	4		1			
86				8										1			
89				3	6									1			
95			1	39	21								5	2		3	
96		7	6	106	30							10		9		4	SPUR
103				2									1				
105				3	1								1				
108				5	1												
109			5											3			
110			2	2			1							1			BUCKLE
111					8											1	
113		1	4	127	110							2	1	3			
123		12			6							55	2		●		
124				13	5												
126		3		3	1							140	5	5	●		
128					2							7					
131			1									2					
132		2		4	10							3					
133					3								1				
145			1	9	7											1	
148	1		2	48	72						1		3	1			
155		1		33	20	1						1		5		1	
157			8	46	59								4			14	
162		2			1							7	2				
164			1	30	3							3					
167				23								2		3			
168				30	13	2											
174				3							1			3			
177				5								2					

Table 1
Steyning, Tanyard Lane, 1977. Finds summary.

Feature 40. Freshly fractured surface shows blue-black slag, part dense, part very porous. Rust coloured areas within the slag, also some skeletal slag outline of charcoal.

H64. Structure shows dendritic wüstite in a matrix of fayalite. Also present are dark areas of what may be leucite. Could be product of forge or bloomery. Forge favoured in view of lack of structural detail of matrix.

H65. Another specimen of same sample as H64. Shows large amount of dendritic wüstite in matrix of fayalite in groundmass of glass. Irregular patches of wüstite and quantity of latter suggest specimen is product of forge operations (take up of iron oxide by slag in forge hearth). There is also a dark area of what appears to be leucite containing dendritic wüstite.

Animal Bone Remains (T. P. O'Connor, B.Sc.)

The animal bone remains recovered from Tanyard Lane were generally in a fairly good state of preservation, but fragmentary and rather weathered. Much of the bone had the appearance of secondarily deposited material, although some of that from pits was clearly in a primary context. The material comprised a large number of small samples, and accordingly estimates of minimum numbers are of low significance.

The range of species represented is fairly typical of the food animals which would have figured in the diet of a medieval population. *Bos* and *Ovis* predominate with *Ovis* slightly the more widespread of the two. Two points must be considered, however. A single *Bos* produces many times as much meat as a single *Ovis*, and *Ovis* was not kept primarily as a meat animal before about 1700. In medieval England, the sheep was a producer of wool, milk and manure in that order. Of interest is the frequent occurrence of *Gallus*, notably in Pit 66. The bones suggest this *Gallus* to have been a little smaller than the modern domestic fowl. The remains of *Canis* and *Felis* probably represent household pets or familiars. That some hunting went on is shown by the presence, albeit scarce, of *Cervus, Dama* and *Capreolus*. The occurrence of *Cygnus* sp. in 157 suggests the possibility that this bird was a luxury supplement to the food supply. The solitary *Capra* in 54 highlights the dominance of *Ovis* in the medieval period.

Butchery Indications

There were only a few obvious traces of butchery. Feature 157 yielded the proximal part of a *Bos* tibia bearing the marks of an oblique downward blow from a sharp, straight-edged instrument such as might have been delivered in the process of chopping muscle away from the bone. Fragments of *Bos* tibia from Feature 124 showed similar marks.

Part of an *Ovis* skull from Feature 16 showed evidence of having been cloven longitudinally and the horn core having been chopped. The cleaving would suggest that the brain was being eaten, or possibly even the whole head. Quite why the horn-core should have been struck off is hard to say.

The broken distal end of a *Capra* femur from Feature 54 had the appearance of having been chopped, or cut rather than snapped.

From layer 104 in Feature 44 came a *Bos* cervical vertebra which had been cloven longitudinally. This probably reflects the complete longitudinal cleaving of the whole carcass, for ease of handling. An immature *Bos* atlas from Feature 59 had been chopped transversely in a manner which strongly suggests a beheading blow from above and behind the skull.

For *Bos, Ovis* and *Sus*, a note was made of the occurrence of bones from either meat-yielding components of the carcass, or waste components. A figure was calculated, being the percentage of all occurrences of that species in which meat/waste components were present. These figures are summarised in Table 3.

Table 3. Relative abundance of meat-yielding and waste components.

		Bos	*Ovis*	*Sus*
Pits:	Meat:	76%	84.5%	65%
	Waste:	72.5%	74.5%	70%
Postholes:	Meat:	73.5%	84.5%	75%
	Waste:	66.7%	54%	75%
Other contexts:	Meat:	80%	81.5%	50%
	Waste:	80%	65.5%	62.5%

The high proportion of waste components of all species makes it very probable that all three species were being slaughtered and butchered in Steyning rather than the dressed carcasses being brought in from elsewhere.

The Environmental Samples (M. P. Hinton)

I wish to thank Richard Hubbard for his generous help and criticism in the preparation of this report. Any errors are, of course, the responsibility of the writer.

Samples of soil were taken from cleaned surfaces in Features 10, 27, 44, 49 and 88. The seeds were extracted by a combination of wet-sieving (through meshes of 2mm, 1mm and 0.25mm) and water flotation, using 100 vol. hydrogen peroxide to break up lumps.

The seeds fall into three classes. In the first are the carbonised seeds (bracketed in Table 4), and these are presumed to be ancient. The non-carbonised seeds appear in varying stages of degradation, from unmistakably modern (discarded) to a state resembling fossilisation. These last have lost their outer seed coats and have become hard and translucent. These "fossilised" seeds (marked by an asterisk in Table 4) occurred in the layers containing a peculiar brown concentration, and a few were actually incorporated in it. In the third class are the remaining, sub-fossil seeds.

The condition of the majority of the carbonised seeds is poor. Among them grains of wheat and barley have been identified but there are a number of cereal fragments which cannot be ascribed to any genus. The only wheat species identified is *Triticum aestivum* (bread wheat). This is the typical species of the medieval period, by which time it had replaced the formerly predominant *Triticum dicoccum* (emmer).[27] The barley also is poorly preserved and distorted. That hulled barley is present is indicated by the angular outline of some grains, caused by the veins of the tightly enclosing palea and lemma. There is no evidence of naked barley, which declined in England after the Bronze Age.[28]

Food plants are also represented by the Celtic bean and the hazel nut fragments. Celtic beans have been cultivated in England since the Iron Age[29] and hazel nuts have been frequently found in sites of the Mesolithic period and later.

Among the other carbonised seeds, corn cockle, mayweed and vetch are inedible weeds of arable land.

There seems little reason to doubt the antiquity of the fossilised seeds, but the age of the sub-fossil seeds is uncertain. Two species in particular raise doubts. Firstly, the most frequently found species among the sub-fossil seeds is elder, and it must be noted that several specimens of this plant are growing at the margins of the excavated area. Secondly, the greatest number of seeds of any one species occurring in a sample was seventeen apple pips in layer 130, Feature 66, and the site is known to have been used as an orchard, probably from the nineteenth century.

The problem of contamination by recent seeds has been discussed by Keepax[30] who concluded that some intrusion is unavoidable, despite care in sample collection and processing. This may be caused by down-washing through cracks and root-holes, but chiefly by earth worm action. In the light of Keepax's conclusions the elder seeds should be regarded as contaminants. However, the fact that the apple seeds, which certainly appear ancient, have come from only one sample may suggest that they are not of recent origin. It seems unlikely that seeds could survive in non-waterlogged soil for very long periods of time, although Salisbury states that seeds may retain viability for many years if not dried beyond a minimum water content, which varies with species.[31] He further suggests that under 'favourable conditions', it is not impossible that some weed seeds could even remain viable for centuries. There would then be a further period of time required for their complete degradation.

Perhaps the most interesting of the seeds is *Anethum graveolens* (dill), which is not native to Britain. It is known to have been introduced, or more probably imported, to several Roman sites in England and has recently been reported from medieval London.[32] There are two seeds from Steyning and in both cases the outer coats are lost, leaving the broad vittae exposed. One of the seeds (from layer 152 in Feature 66) is distorted, but nevertheless seems likely to be dill. The preservation of these seeds places them within the group of uncertain age. Dill is unlikely to have been cultivated in this area and so is presumably not a relatively recent contaminant, and on archaeological evidence the site has not been occupied since the late medieval period.

Wild celery, like dill, may be used to flavour food. This plant is found in damp ditches and slow-flowing water, especially near the sea, conditions which are likely to have prevailed at this site, and it is probable that it was collected locally. Ragged robin and celery-leaved crowfoot also favour damp situations. These seeds and the other buttercup species, yarrow, ribwort, daisy, thistle and knapweed, which are all grassland species, may give some indication of the site's environment. Celery-leaved crowfoot and rye-grass are particularly associated with grassland with a high nitrate content, and this may indicate grazing.

The Coprolites

Two items from layer 121, Feature 66, have been identified as probable dog coprolites. The larger of the two weights *c.* 14g and measures *c.* 2 x 4cm. It has been kept in preserving fluid and has partially disintegrated, revealing jagged bone fragments from *c.* 3mm to *c.* 12mm in length, in a light brown matrix. The smaller one has been kept dry and weights *c.* 7g, measures 2.3 x 1.7cm and is light brown-grey. No constituent parts have been identified.

Table 4

Taxa	Features						Vernacular Names
	10	44	49	66	27	88	
Triticum aestivum L.	(5)	(31)	(1)	(4)	(2)	(1f)	Wheat
cf. *T. aestivum* L.		(Fr)	(5)	(3)	(2)		
Hordeum vulgare L.	(1)	(4)		(2)			Barley
cf. *H. vulgare* L.	(2f)	(Fr)		(1f)		(1f)	
Unidentified cereals		(Fr)		(Fr)	(Fr)		
Vicia faba L. Var. *minor*	(1)						Celtic bean
Vicia sp.		(1)			(1)		Vetch
Malus sp.				17			Apple
Corylus avellana L.					(Fr)		Hazel

Prunus avium L.				3		Fr	Wild Cherry
Anethum graveolens L.		1		?			Dill
cf. *Apium graveolens* L.				4*			Wild celery
Ranunculus cf. *acris* L.				3*			Meadow Buttercup
R. sceleratus L.				1*			Celery-leaved Crowfoot
Ranunculus sp.		1*		1*			Buttercup
Papaver sp.		1*					Poppy
Viola sp.				2,1*			Violet
Agrostemma githago L.					(1)		Corn Cockle
Lychnis flos-cuculi L.	(1)						Ragged Robin
Stellaria media (L.) Vill.	1						Chickweed
Linum catharticum L.				1			Purging Flax
Rumex acetosella agg.				1*			Sheep's Sorrel
Rumex sp.	1			1			Dock
Urtica dioica L.	1				2		Stinging Nettle
Solanum nigrum L.	1		1				Black Nightshade
Plantago lanceolata L.					1		Ribwort
Sambucus nigra L.	24f	1f		4	1		Elder
Anthemis cotula L.				(3)			Stinking Mayweed
Senecio vulgaris L.	1*				2		Groundsel
Bellis perennis L.				1			Daisy
Achillea millefolium L.				1			Yarrow
cf. *Cirsium* sp.	1		1	3*			Thistle
cf. *Centaurea* sp.				3*			Knapweed
cf. Compositae		3	1	6,6*	7		Dandelions etc.
Lolium perenne L.		(1)					Rye-grass
Unidentified badly preserved seeds				4,1*		(1)	
Weight of soil sample (in grams)	8640	5485	6406	7902	3267	1821	

Key: ( ) carbonised;
* fossil;
Fr. fragments only;
f fragments also present.

The charcoal samples (Identification by C. R. Cartwright, M.A.)

Features 10, 123 and 126 produced large quantities of iron slag and charcoal, and feature 22 contained much burnt stone and charcoal. The species of wood which produced the charcoal were identified as follows:

Feature 10	*Quercus*	sp.	(oak)
Feature 22	*Corylus*	sp.	(hazel)
	Betula	sp.	(birch)
	Crataegus	sp.	(hawthorn)
Feature 123	*Quercus*	sp.	
Feature 126	*Quercus*	sp.	

An interesting point is the lack of oak charcoal in feature 22, which contained many burnt stones but very little slag, in comparison with the major slag containing features, all of which contained only oak charcoal.

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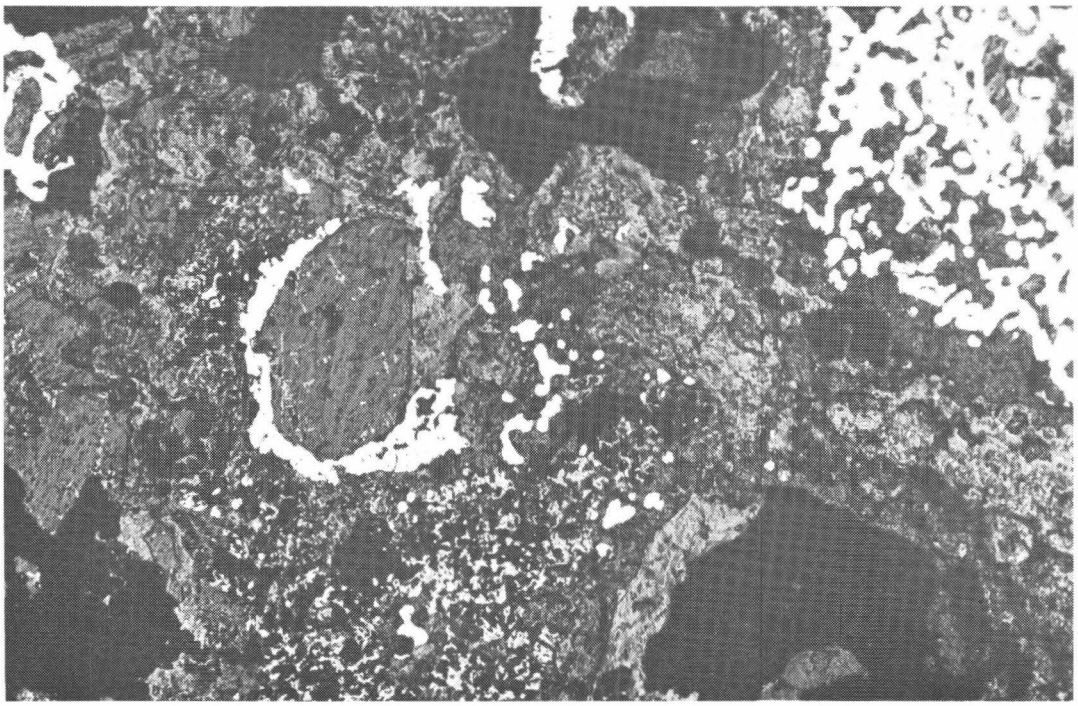
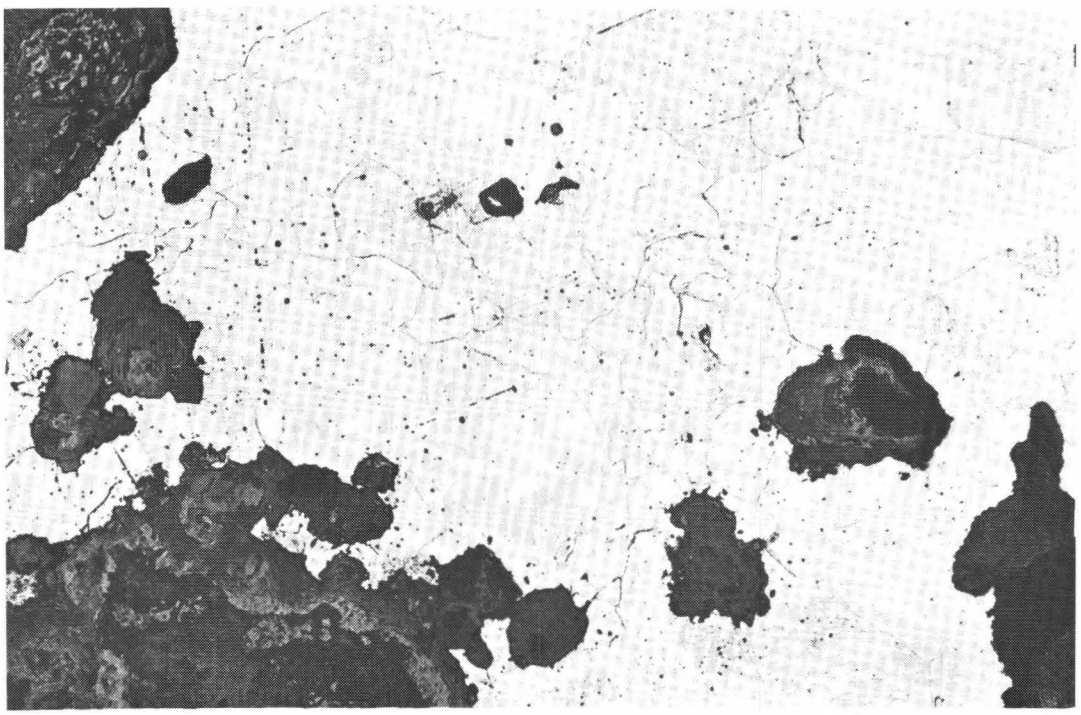


1. Steyning, Tanyard Lane, 1977. Microphotograph of iron slag from feature 10 (×200). Photo: D. Butler.



2. Steyning, Tanyard Lane, 1977. Microphotograph of iron slag from feature 126 (×200). Photo: D. Butler.