

A rural medieval settlement in Roxburghshire: excavations at Springwood Park, Kelso, 1985–6

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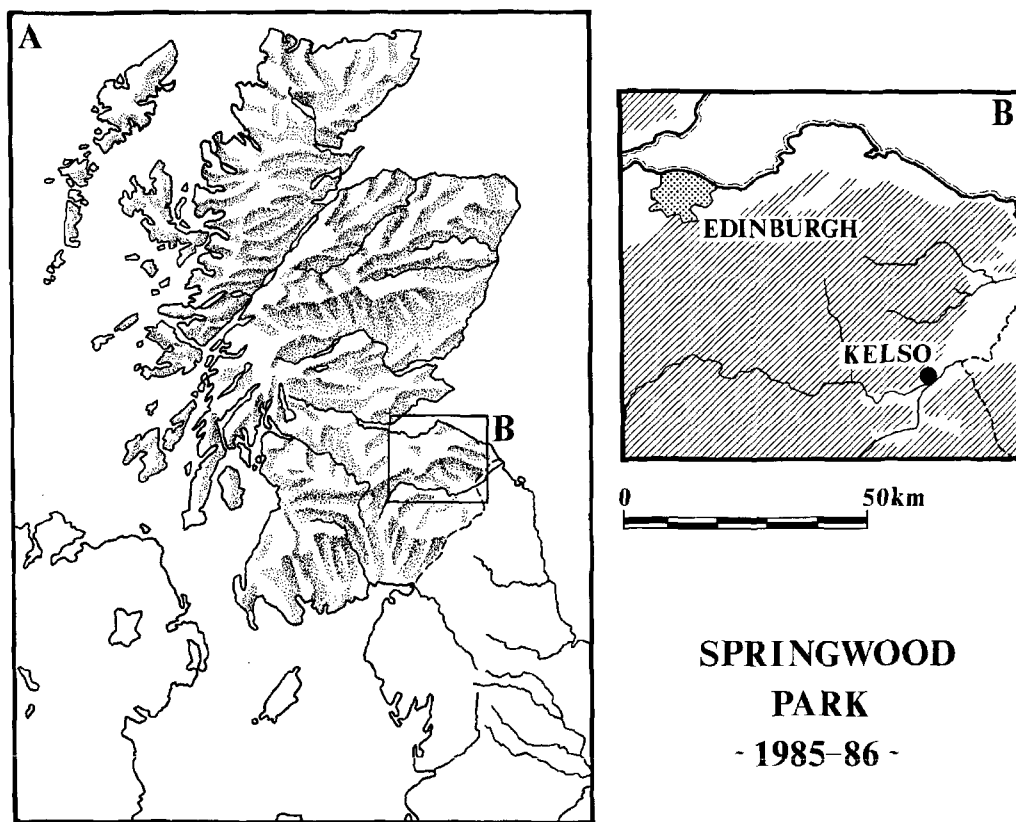
ABSTRACT

Few medieval rural settlements have been identified or excavated in Scotland. The site at Springwood Park survived in a ploughed field and was identified by scatters of medieval pottery. Excavation revealed only part of the settlement, a row of buildings on a river terrace which was occupied from the late 12th to the 14th century. Three main periods were identified, followed by levelling and abandonment. The earliest period featured post-set structures and plots defined by ditches; the two later occupation periods featured cruck-framed buildings with clay walls on stone footings. These later periods were each marked by a major reorganization of the settlement, with the buildings in the second period arranged end-on to the old river terrace along which the settlement was built, and in the third period rebuilt in a row facing the terrace. The project was funded by the Manpower Services Commission and Historic Scotland.

INTRODUCTION

There have been few excavations on rural medieval settlements in Scotland. These have often been too small in scale to answer many questions (eg Dunagoil, Argyll: Marshall 1964), or inconclusive for other reasons such as lack of datable evidence (eg Dowglen in Eskdale: Cannel, unpubl; RCAHMS 1997, 234–5). Recent years have seen a spate of interest in rural medieval and post-medieval settlement, with excavations at Pitcarmick, for example, identifying buildings of the late first millennium (Barret & Downes, unpubl). As far as rural settlements of the 12th to 14th centuries are concerned, the Springwood Park excavation remains the most extensive example in mainland Scotland, though comparison may be made with the excavated settlement at Rattray in Aberdeenshire, a medieval burgh of distinctly rural character (Murray & Murray 1993). If our knowledge of rural medieval settlement is to improve, more excavations of this scale are needed. In southern and eastern Scotland increasing numbers of sites have been identified in recent years, either from the combined evidence of documentary sources and field survey (eg Southdean near Jedburgh: RCAHMS 1994), or from scatters of medieval pottery (eg Tents Muir, Fife [NGR: NO 488 229] and Bonjedward, Roxburghshire [NGR: NT 6555 2365], W Elliott,

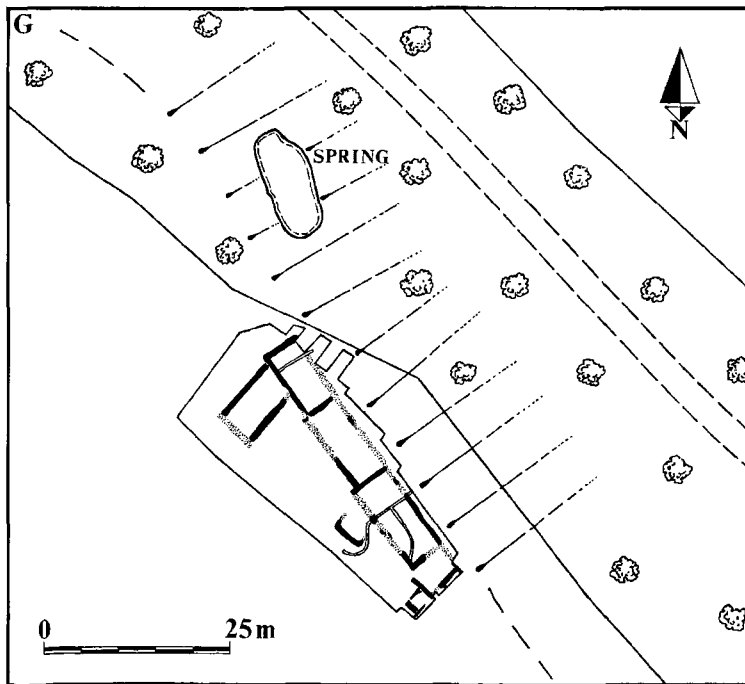
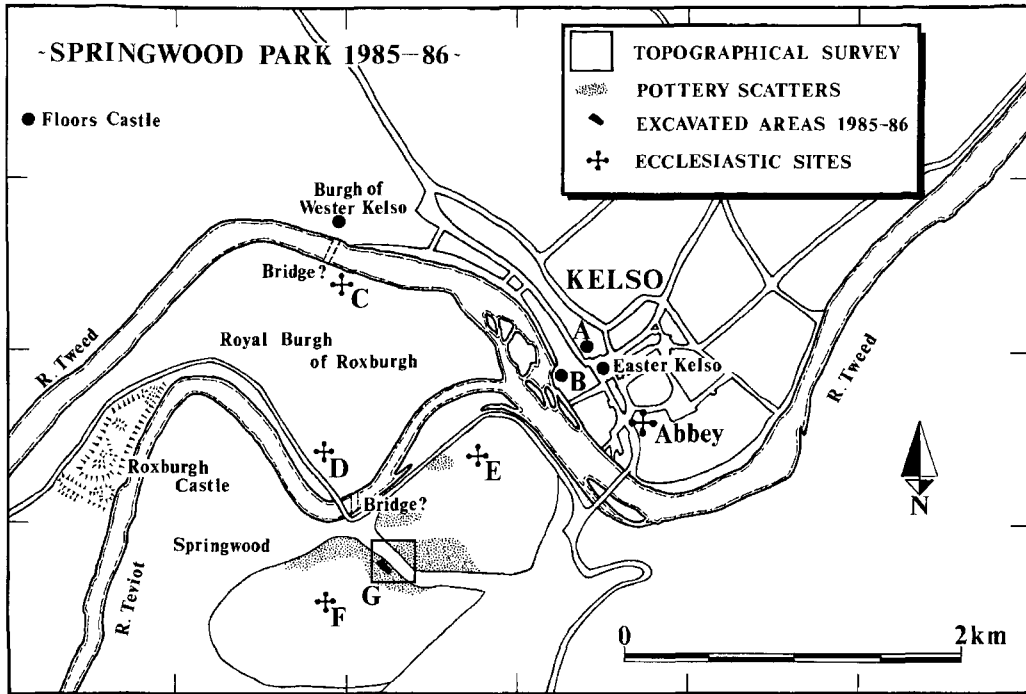
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ILLUS 1 Location map. (Based on the Ordnance Survey map © Crown copyright)

pers comm). Indeed it was the unearthing of medieval pottery by the plough that led eventually to the excavation at Springwood Park.

The excavation grew out of a Borders Burghs Archaeology Project designed to follow up the research objectives identified by the Scottish Burgh Survey for Kelso and its environs (Simpson & Stevenson 1980). This survey not only identified priorities in the town and the grounds of Floors Castle (Wester Kelso), but also summarized the wider problem of Roxburgh and its related settlements, including the possibility of a settlement on the south side of the medieval bridge over the Teviot to Roxburgh. The genesis of the excavation, therefore, was the examination of what might prove to be a suburban settlement of Roxburgh, but firmly outwith the walls of the town and its jurisdiction in the township of Maxwell. The presence of Roxburgh must therefore colour our interpretation of the site, though there is no evidence for any local market functions on this side of the river, or burgh status to match Wester Kelso, the burgh of the Abbey of Kelso at the bridgehead over the Tweed to the north of Roxburgh. Thus the context of the site is partly rural and partly suburban. The benefits of a location so close to Roxburgh would have lain in the ease of access to its markets and the improved opportunities for trading the rural products that the inhabitants produced. The degree to which the lords of Maxwell benefited from this activity would have lain in the improved rents that they could charge.



ILLUS 2 Medieval sites in the Kelso area (above) and topographical survey of site area

SITE LOCATION

The site lies 150 m south of the river Teviot (illus 1 & 2) on the edge of an east-facing wooded river terrace in which are a number of springs (NGR: NT 7211 3338). The church of Maxwell lay on the haugh land 900 m to the north-east and the oratory chapel of the lords of Maxwell was situated on the hilltop 350 m to the south-west. There may have been a medieval bridge across the Teviot to the royal burgh of Roxburgh on its north bank, although this is dependent on the evidence of Pont's map of c 1590 (Blau 1654), which shows a place called Bridgend on the south bank. Scatters of medieval pottery have been found in the ploughsoil both along the edge of the river terrace for about 150 m from the bridgehead and on the haugh land below the terrace. Thus, the medieval settlement on this site was both a suburban development of the royal burgh and a settlement adjoining rich arable farmland.

ARCHAEOLOGICAL BACKGROUND

The impetus to excavate on this particular site came from Tony Robb who, with Colin Martin, excavated trial trenches on the site in 1966 to investigate the frequent finds of medieval pottery occurring in the ploughsoil. Their trenches revealed clay-bonded stone walls with adjacent cobbled areas and associated medieval pottery (Simpson & Stevenson 1980). This presented the opportunity to investigate medieval building remains of some substance and relatively undisturbed by post-medieval occupation or landscaping. The degree to which modern ploughing was disturbing the site could also be examined and inferences made about the likely survival of archaeological deposits at similar sites.

HISTORICAL NOTE

Direct documentation for the settlement at Springwood Park is limited to the post-medieval period, long after the site was abandoned, but some background information about the locality is relevant nonetheless. The lands of the parish of Maxwell were the possession of the eponymous lords of Maxwell, whose ancestor Maccus, son of Unwain, is said to have received the barony from David I. The lords of Maxwell were variously sheriffs of Roxburgh or Teviotdale and Dumfriesshire, and were also chamberlains to Alexander II and Alexander III in the 13th century. Throughout the Wars of Independence the Maxwells managed to stay on the winning side at the right moments and continued to hold the barony until after 1619, when it passed into the hands of the Kers of Roxburgh.

Some light is shed on the arable economy of the area in the medieval period from the surviving documents. In 1264, 20 chalders of barley were taken from Maxwell to supply Roxburgh Castle at a cost of 20 marks, and in 1266 the Sheriff of Roxburgh accounted for the carriage of 20 chalders of corn from Maxwell, thrashed and winnowed, again to supply the castle (ERS I, 17 & 28). In 1381–2, presumably during the English occupation, Thomas of Ilderton, chamberlain of Berwick, accounted for the grazing and profits of the vill of Maxwell and also separately for the vill and mill (Bain 1888, Item 306). The arable bias of Maxwell is further displayed in the 1567 rental of Kelso Abbey in which the town of Maxwell with the Mains (manis) yielded six bolls of wheat, one chalder of bere (barley) and one chalder and four bolls of meal or oats (OPS 1851, 445–9).

Although not adjacent to the site, Redden, a grange of Kelso Abbey lying a few miles east of the town, is the subject of a rental of c 1300 which gives an insight into both the local farming economy and also the tenurial structure. Here, in addition to the demesne, there were eight

husbandmen and 19 cottars, of whom the husbandmen were provided with two oxen, one horse, three chalders of oats, six bolls of barley and three bolls of wheat each, in return for a variety of services including the carriage of a horse-load of wheat, salt and coal to Berwick. This payment in kind had recently been converted to a payment in silver of 12 shillings a year, while the cottagers had to pay 18 pence and do nine days' work, including help with sheepshearing and harvest. The grange also possessed two breweries and a mill (*Liber de Calchou*, 455–6).

The post-medieval history of the site area may be outlined from cartographic sources. The settlement of Brig End at the bridgehead over the Teviot is mapped by Pont c 1590 (Blau 1654), despite having been burnt by the English in 1545 (OPS 1851, 445–9). By the time of Roy's survey in the mid 18th century, the area had been enclosed within the fields of Chapelfarm; the settlement of Brig End had evidently ceased to be of any importance and is not named, although one or two buildings are shown on the south side of the Teviot (Roy 1747–55, sheet 8/3). The enclosed fields had been converted to parkland by the 1860s, by which time Springwood House had been built, as had a new bridge over the Teviot (OS 1st edn, 1862–3, Roxburghshire, Sheet IX).

EXCAVATION

The excavation was designed to locate the site previously investigated in 1966, to record the complete structures, to investigate their economic and social base and to establish their period of occupation. The results of this exploration can also be viewed as a sample of a much larger settlement, since the pottery scatters which identified the site suggest that the settlement is considerably more extensive than the excavated area.

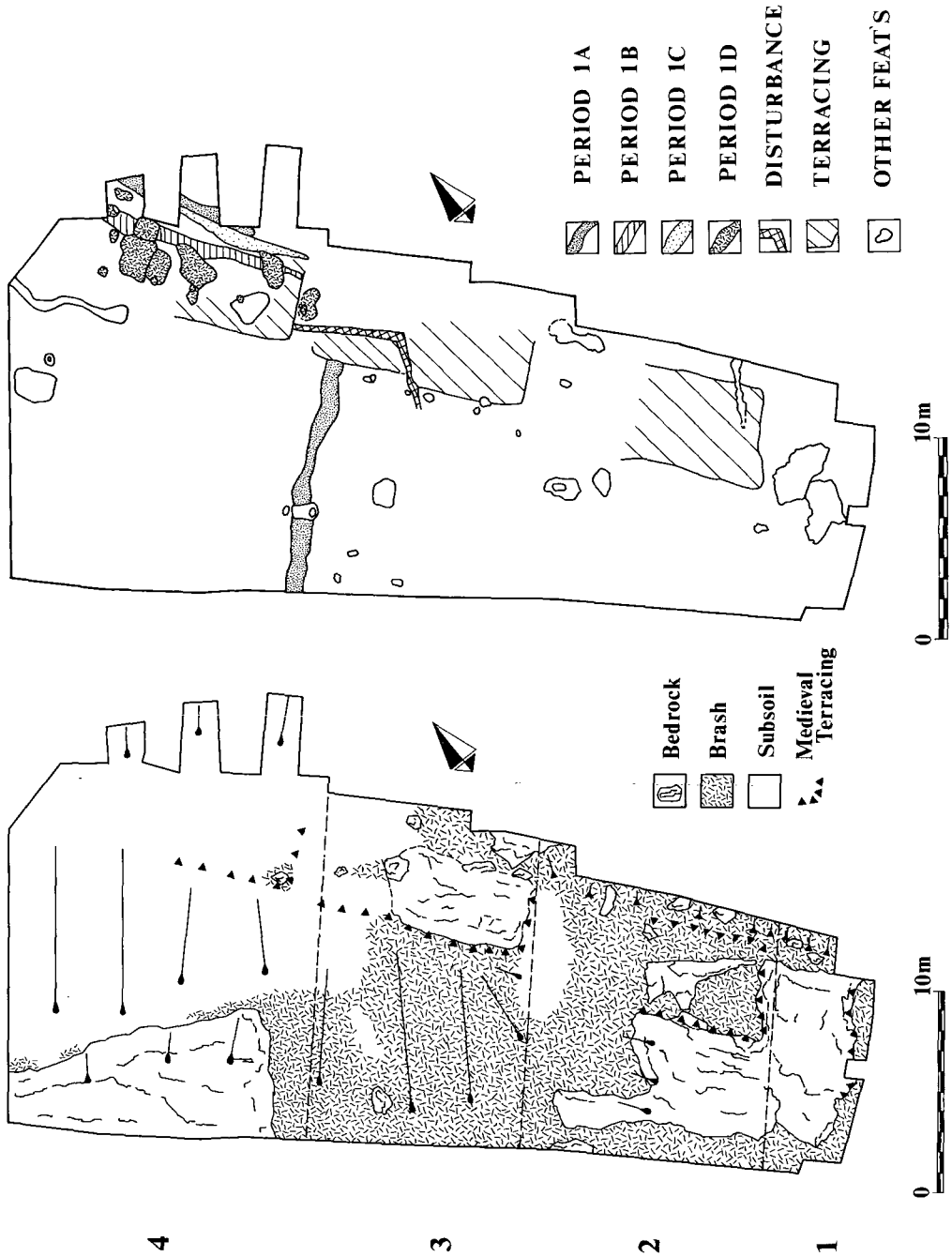
TOPOGRAPHY AND GEOLOGY

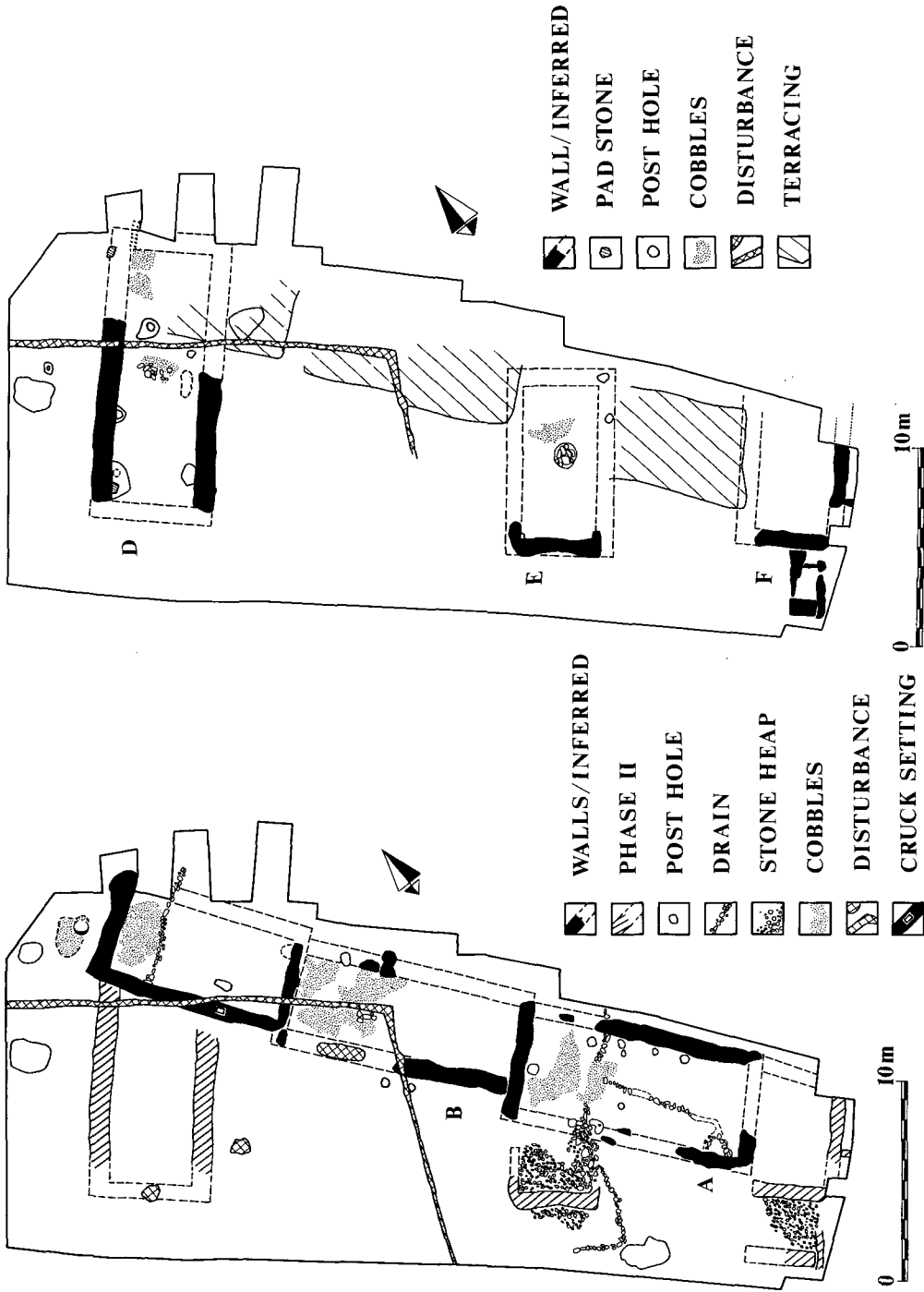
The site lies on the edge of an east-facing, river-cut terrace in a low-lying, arable field (c 45 m OD), formerly part of the parkland of Springwood House. The ground slopes gently from south to north and from west to east. Deciduous woodland occupies the slopes of the terrace.

The terrace itself comprises imbricated basalt with periglacial features, but little glacial drift material, below a brown silty ploughsoil. The upper part of the bedrock shattered easily and weathered quickly when exposed. Overlying the bedrock was a variable depth of brash or weathered bedrock fragments (illus 3). There was a yellowish red clay-silt above the shattered bedrock, often in natural declivities. The soils on the site were derived from these subsoils and were predominantly brown or dark brown silts and loams, but with some yellowish-red or brown clay soils, especially in the earlier phases. There was a shallow depth (0.25 m) of ploughsoil at the west side of the trench, over bedrock which was scoured by the plough, but at the east side, on the edge of the river terrace, about 1 m of topsoil had accumulated as a result of soil drift. About 25% of the soil layers had been visibly penetrated by worms and larger burrows for small mammals were also visible in a few places, especially at the north-east of the site. Penetration by roots was noted in 10 instances, mostly in the later phases and at the north-east corner of the site next to the woodland. Naturally, this has implications for any environmental analysis.

METHODS

The site was excavated by hand, including the ploughsoil, and recorded by context (though plans were in general composite rather than based on single contexts). The environmental sampling strategy was designed so that well-stratified deposits were sampled (ie bulk soil samples), and





ILLUS 3 General plan showing geology with site divisions Areas 1-4 (top left), and main features of Period I (top right), Period II (lower right) and Period III (lower left)

suspect contexts rejected. Some seed samples were taken by hand from charcoal-rich contexts. Pollen samples were also taken from selected contexts. The soil was too acid for good preservation of bone and no attempt was made to sieve for fishbones. Animal bone was collected by hand and recorded to context. Findspots of coins, copper-alloy and lead objects, worked stone (excluding flint), and selected iron objects were recorded three-dimensionally; other finds were simply recorded to context.

An electronic archive of the site records was begun in the field and a complete version has been deposited with the National Monuments Record of Scotland and with the Scottish Borders Council's Museum Service. The finds are also deposited with the Scottish Borders Council's Museum Service and are held in storage at Kelso.

STRATIGRAPHY

For the purposes of describing the stratigraphy the site has been divided into four areas (Areas 1–4), based on both natural and stratigraphic breaks (illus 3). The six stone-walled buildings have been allocated letters (A–F). The structural sequence is divided into four main periods (Periods I–IV), further subdivided by phases (Phases I–IX). Many of the earliest features (ie features cut into the subsoil surface), pre-dating the stone walled structures, are simply grouped together in Period I, despite the evidence from Area 4 for considerable complexity in this period. In Area 4 there were at least four phases within Period I, though in other areas few features could be assigned confidently to these phases. Further interpretative difficulties were engendered by the cutting of house-platforms in Period III. These truncated the stratigraphic sequence to the point that in Area 3, for example, no features could be ascribed to Period II.

INTERPRETATION

A key element in the interpretation of the site is the recognition that the stone footings probably supported clay walls and that the buildings were cruck-framed houses. This interpretation was not immediately evident from the walls themselves, since cruck-trusses do not require any structural assistance from the walls. Therefore, it is useful at this stage to consider the general interpretation of the structural remains.

The walls

The evidence indicates that the walls of the Period II and III buildings (A–F) were formed of clay over stone footings. The walls of these buildings were all of a similar type, measuring 0.7–0.9 m thick, except for the walls of Building D, which were up to 1.2 m thick. They were faced with boulders and had cores of small to medium-sized stones, bonded with earth or clay. Except where the buildings were terraced into the ground the walls generally stood to a maximum of 0.4 m or two courses high. The highest remnant, in Building A, was 0.75 m or five courses high (illus 4). While a faced rubble wall of this kind may stand to the apex of a gable and support a roof, as in the 16th-century 'pelehouses' of Southdean (RCAHMS 1994), this is unlikely to have been the case here. Most of the walls appear to have been low footings as only a limited quantity of tumble was recorded, including a few large stones that might have been used as facings (otherwise, highly efficient stone robbing must be assumed to account for the dearth of fallen building rubble). Spreads of clay silt and small stones, most notably in Building A, indicated the nature of the stone-and-clay aggregate used to raise the walls over these stone footings. Walls of this type have



ILLUS 4 Building A from north showing the spread of collapsed stones from the clay walls



ILLUS 5 Padstone for a cruck timber within the wall of Building C

been found in rural buildings in many parts of Scotland, including Roxburghshire (Fenton & Walker 1981, 76–83).

Crucks

Crucks are known to have been used in rural buildings throughout Scotland in the post-medieval period, both from excavations (eg Glenochar, Lanarkshire: Ward 1992, 66–7) and from surveys of standing buildings (eg Prior Linn, Canonbie, Dumfriesshire: Stell 1972). They are also recognized in the excavations of medieval buildings in northern England (Wrathmell 1989; Dixon 1981). The critical element in recognizing cruck-construction in the stratigraphic record is the evidence for a pad on which the cruck blade was footed. This was first observed at Springwood as a broken padstone set within the west wall of Building C (illus 5), about one-third of the way from its south end. This feature triggered the interpretation and, in due course, a number of

TABLE 1

Summary of stratigraphy, interpretation and dating in all periods

Period I (c 1150–1250)	<i>Stratigraphy</i> Boundary ditches and post-set structures (Phases I–IV)			
	Area 1 pits	Area 2 pits and gullies	Area 3 ditch and post-set structure	Area 4 ditches and post-set structure
	<i>Dating evidence</i> Late 12th-century straight-sided Kelso Abbey Redware (Pottery, no 51) from a ditch beneath the wall of Building D			
Period II (c 1250–1300)	<i>Stratigraphy</i> Cruck-framed houses, set end-on or east/west to the terrace (Phase V)			
	Area 1 Building F?	Area 2 Building E	Area 3 yard	Area 4 Building D
	<i>Dating evidence</i> 13th-century copper-alloy casket key in surface of infill of Period I hollow in the floor of Building E			
Period III (c 1300–50)	<i>Stratigraphy</i> Cruck-framed houses, re-planned side-on to terrace (Phases VI–VII)			
	Area 1 yard	Area 2 Building A	Area 3 Building B & yard	Area 4 Building C
	<i>Dating evidence</i> King John halfpenny, c 1205–10, lost by 1220, found in the surface of a floor layer (263) in Area I, sealed by tumble of wall from Building A Cut silver farthing of William the Lion, c 1174–95, lost by 1200, from below a floor layer (261) in Building B			
Period IV (from late 1300s)	<i>Stratigraphy</i> Abandonment, demolition and levelling in all areas (Phases VIII–IX)			
	<i>Dating evidence</i> Edward I penny (SF AO), c 1282–9 Edward I farthing (SF AR), c 1300–2 Both from interstices of stone tumble in Building A			

variations in the method of cruck-setting were located in the course of the excavations, including padstones on the ground and in post-pits, and possibly also shallow pits or ground-settings.

AREA 1

Although three periods have been identified in this area of the site to match the main site sequence, there is no easy division between Periods II and III. Only one floor or yard surface was found, which was probably in use in the earlier as well as the later period.

Period I: quarrying (illus 6)

At the south end of the site the earliest evidence of activity comprised two irregularly shaped pits (190 & 334) of uncertain use, possibly quarry pits, which were cut into the bedrock. The earlier pit (190) contained a high proportion of bedrock fragments in its silty fill, with a preponderance of larger stones towards the top of the fill and a concentration of gravelly material at the base, indicating that it may have been open for some time before infilling. Subsequent to its backfilling, another pit (334) was cut immediately to the north. This was filled with a loose, silty, clay loam and was much richer in artefacts, both pottery and animal bone. Close to the west side of the quarry pits was a smaller, irregular pit or post-pit (191), filled with silty loam, with no obvious relationships to any other features.

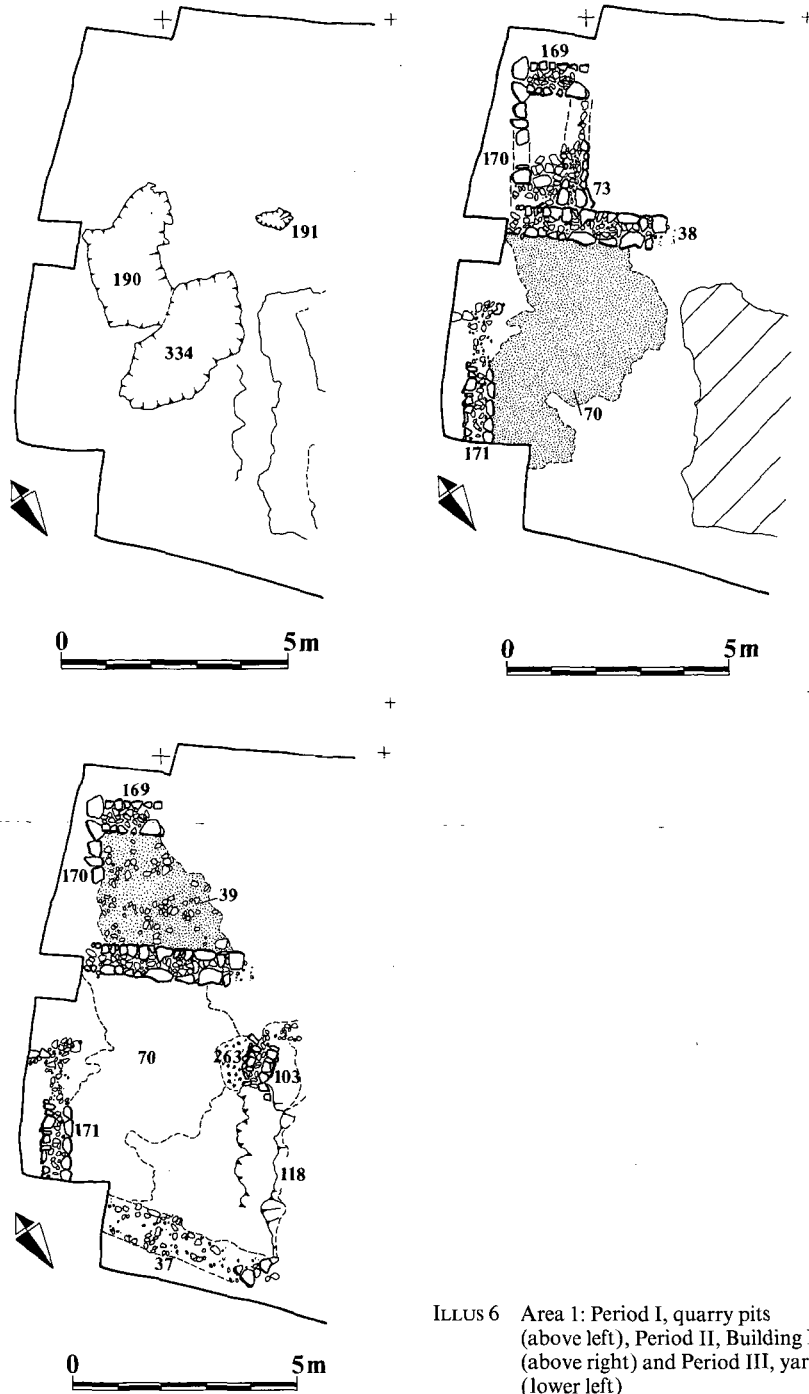
Period II: Building F and outhouse (illus 6)

At the southernmost end of the site were the remains of two low stone walls which may have been part of a building on an east/west axis, parallel to Buildings E and D. A north/south wall (38) formed the west end of the building with an east/west wall (171) at right angles to it forming the south wall (there was no physical tie between the two walls). The north wall of the building had probably been removed during construction of Building A; the east wall lay outside the limit of the excavation. The end wall (38) was 3.6 m long and in places stood to two courses (0.3 m high). Its base was built on a stony layer (311) which sealed a Period I quarry pit (190). Partly overlying the stony layer was a small thin spread of charcoal-rich silt (305), which suggests an interval between the filling of the pit and the construction of the wall. The side wall (171) was built on natural bedrock or gravel which had been terraced on its northern side. A maximum of three courses of facing stones remained. A terrace was cut through natural bedrock and gravels, up to 0.15 m deep, to form a roughly levelled surface within the building. This levelled area was overspread to a maximum depth of 0.15 m by a silty loam with small stones, charcoal flecks and numerous artefacts, forming a floor or yard surface (70).

To the west of this building a stone walled shed or outbuilding was built within the return between the end wall of the building (38) and an adjoining wall (170) (possibly a remnant plot boundary). This structure was defined on the west by a short length of wall (169) of similar construction to the end wall of Building F. It measured 2.2 m by 1.5 m internally and may initially have been open on the north side (at least, wall 73 appears to have been added in Period III, below).

Period III: enclosed yard and metal platform (illus 6)

Immediately to the south of Building A, the area defined by the walls of Building F (38 & 171) continued in use as a yard with the addition of a new wall (37) forming a quadrilateral enclosure.



ILLUS 6 Area 1: Period I, quarry pits (above left), Period II, Building F (above right) and Period III, yard (lower left)

(The north and east walls of Building F were evidently demolished at this stage.) This new wall was on the same alignment as Building A and overlay the earlier yard or floor layer (Period II, 70). Also, a small, shallow, ashy deposit (263) lay within a hollow in the surface of this layer, adjacent to the south wall of Building A. It contained a cut halfpenny of King John (1205–10).

Within the existing outhouse walls (Period II: 169, 170 & 38), the whole of the interior was covered by a stony layer (39), slightly mounded and roughly level with the tops of the walls. The opening on the north side of the outhouse was blocked up with another wall (73), standing two courses high. A further spread of mixed stones and bedrock fragments in a brown loam matrix may have formed the surface of a raised yard or platform.

Period IV: abandonment (not illus)

There was little tumbled stone from the various structures in this area, which would support the interpretation that the upper parts of the walls were constructed of perishable materials. Some large stones were found beside the east/west wall (171) of Building F, which may have been disturbed during ploughing, and some tumble (124) from the south wall of Building A overlay the floor of the yard.

AREA 2

Period I: primary occupation features (illus 7)

The cutting of a platform for Building A in Period III truncated or removed any features in the southern part of Area 2. The earliest surviving features, indicating activity pre-dating Periods II and III, were two gullies, some pits and post-pits and a shallow scoop in the bedrock containing a spread of midden material.

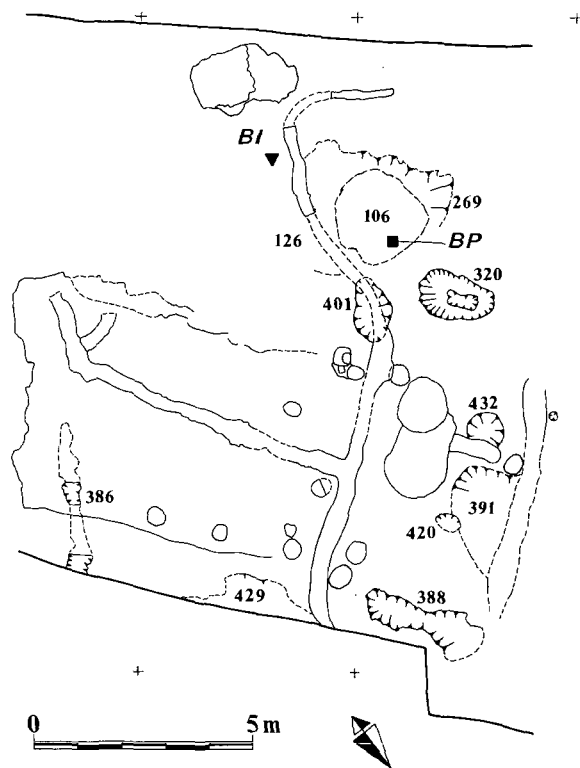
On the eastern edge of the excavation a truncated drainage gully (386), draining from west to east, was cut through bedrock. Its silty loam fill included some larger stones (c 0.25 m). Situated c 7 m to the north, another gully (388) was also cut through bedrock. The northern end widened and petered out, possibly due to truncation by Building B. Its fill indicates a natural process of infilling with the lower fill comprising gravel and river-washed grits and the remainder a stony silt with some small rounded stones. Midway between the two gullies an irregular feature (429) at the eastern baulk was not fully excavated. It was not possible to determine its nature or function, although it may be the edge of a natural terrace, infilled with dark brown loam and small stones to make up the ground for the construction of buildings in Periods II and III.

Lying within the floor areas of Buildings A and E was an oval post-pit (420) up to 0.75 m wide and 0.4 m deep. This was packed with small and medium angular stones; a post-pipe (0.3 m wide) on the north side was filled with a brown silt loam (380) and lined with a large packing stone on its southern edge. Unusually on this site there were no artefacts from its fills.

Two features to the west were overlain by the floor layer (231) of Building E. A large pit (320) incorporated in its base a well-made rectangular post-setting (433), 0.6 m by 0.3 m and 0.15 m deep, with vertical sides and a flat base. A large river-worn boulder lay over this post setting, indicating that the post had been removed and the pit infilled. Another pit (401) to the south was filled with large river-worn boulders in a dark brown silt loam.

Floor or yard surfaces (illus 7)

Three occupation layers pre-dated Building E. Two (126 & 269) were dumps of stony material, infilling steps or fissures in the bedrock. The finds from layer 126 came from its surface (although



ILLUS 7 Area 2: Period I, pits, gullies and other early features

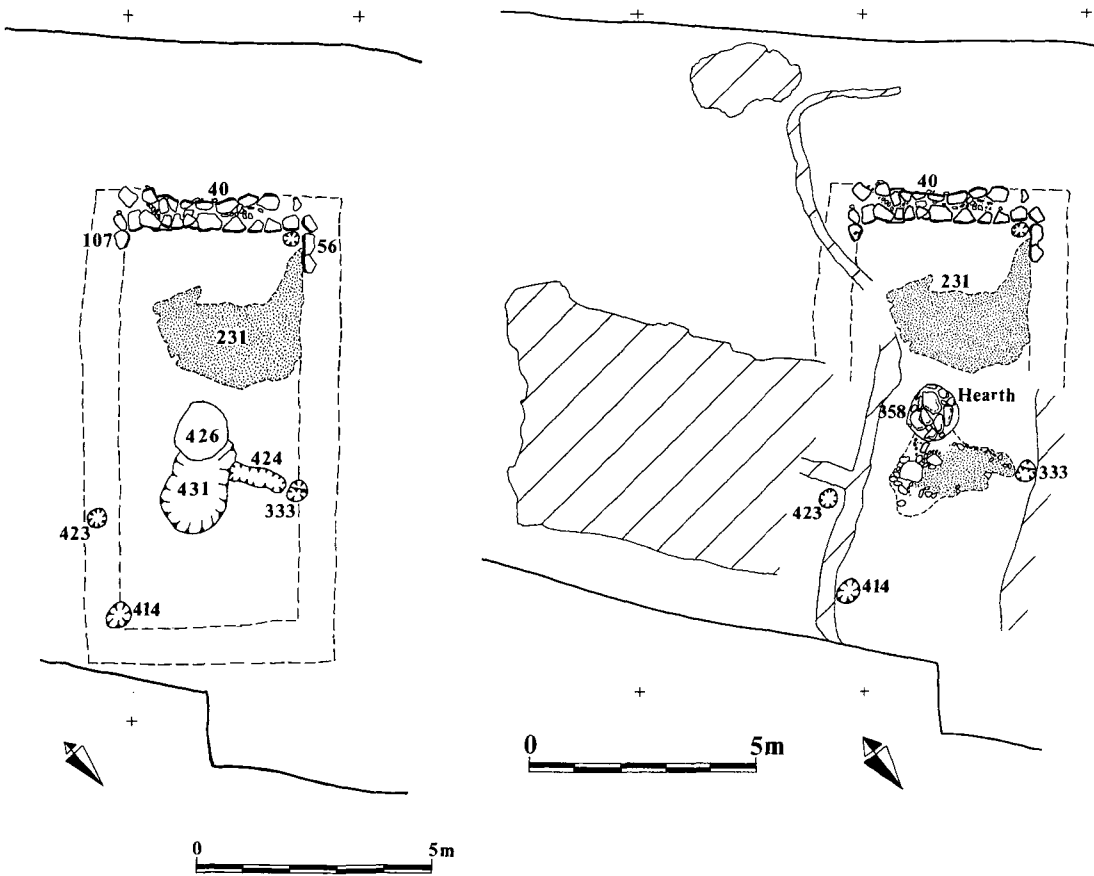
it should be noted that the layer was not fully excavated); in layer 269 pottery and flecks of charcoal were found throughout. Lying above the latter deposit was a shallow layer (106) of dark brown loam with some small stones. The upper part was particularly rich in charcoal, but also artefacts. In particular, a copper-alloy casket-key of 13th-century date was found within the floor area of Building E.

Period IIa: Building E (illus 8)

Building E was almost completely robbed, leaving the west end wall and some fragments of the north and south sides. The location of the east end is inferred from the fall in ground at the edge of the natural terrace about 8 m east of the west wall. Thus the building was roughly twice as long as its breadth, or 3.8 m by 8 m internally. Within the building there was evidence for a central hearth and a transverse partition wall carried on a wooden sill-beam.

Walls and superstructure The west end of the building was defined by stone-footings (40) which stood to two courses and its side walls by the remnants of the return walls (56 & 107), consisting of no more than one or two stones at either angle.

Three features are identified as probable settings for cruck blades. In the north-west corner of the building, abutting the stones of the wall and directly over the bedrock, a small shallow depression (0.4 m wide) was filled with brown silt and a few small rounded stones. Midway along the line of the south wall was a subcircular post-pit (423), 0.48 m wide by 0.15 m deep, with steep sides and a flat base. It was filled with



ILLUS 8 Area 2: Period IIA, Building E (left) and Period IIB, Building E (right)

brown silt loam and capped by a flat stone, presumably after the post was removed. Another post-pit (414) 2 m to the east, 0.36 m wide by 0.15 m deep, had a wide U-shaped profile filled by dark brown gritty silt and a few small angular stones. This may have served as a cruck setting at the south-east corner of the building; it was sealed by a Period III wall (66) of Building A.

Internal features Within the building a floor-surface (231) of dark brown loam, containing small stones and many pot sherds, respected the north wall-line (56); this measured 3 m by 2m in extent and was up to 0.08 m deep.

In the centre of the building a subrectangular pit (431), 1.8 m wide, was filled with large, mainly river-worn stones (199) in a loose silt over a lower fill of dark brown loam rich in charcoal. Two large flat stones (0.5 m wide) appear to have been placed over the rubble fill (199) to form a level surface. The lower fill was not fully excavated, but its shallowness and high number of charcoal inclusions suggest the feature may have been a hearth pit.

At the north edge of the 'hearth' was a shallow slot (424), 1.2 m long, 0.4 m wide and 0.12 m deep, with curved butt ends. Along the west edge of the slot was a row of small, edge-set stones, suggestive of packing for a timber beam. This may have been the foundation slot for a sill-beam of about one foot in width, amply sufficient to take the uprights of a partition wall.

Beyond the north end of the timber-slot (424) and on the same alignment was a post-pit (333), which may have supported an upright for a timber-partition. The post-pit was roughly circular with vertical sides,

and was 0.44 m wide by 0.25 m deep. It contained a post-pipe (0.4 m by 0.3m) with packing stones at the east and west edges.

Period IIB: internal rearrangements of Building E (illus 8)

Although there was no evidence of external change to the building, a sub-period in the internal arrangements of Building E is represented by the insertion of a new hearth, cut through the west side of the earlier pit (431), and by the removal of the partition. This new hearth consisted of a pit (426) with a stone base (358) which incorporated a broken millstone and a large block of dressed sandstone. The pit measured 1.2 m long by 0.25 m deep, with steep sides and a flat base. It was filled with river-worn boulders in its lower part, with the upper surface made level with large flat stones, set in a dark, reddish grey, silty loam. A shallow deposit of 'ashy' material (a fine, dark grey silt) formed a slight mound covering most of the set stones.

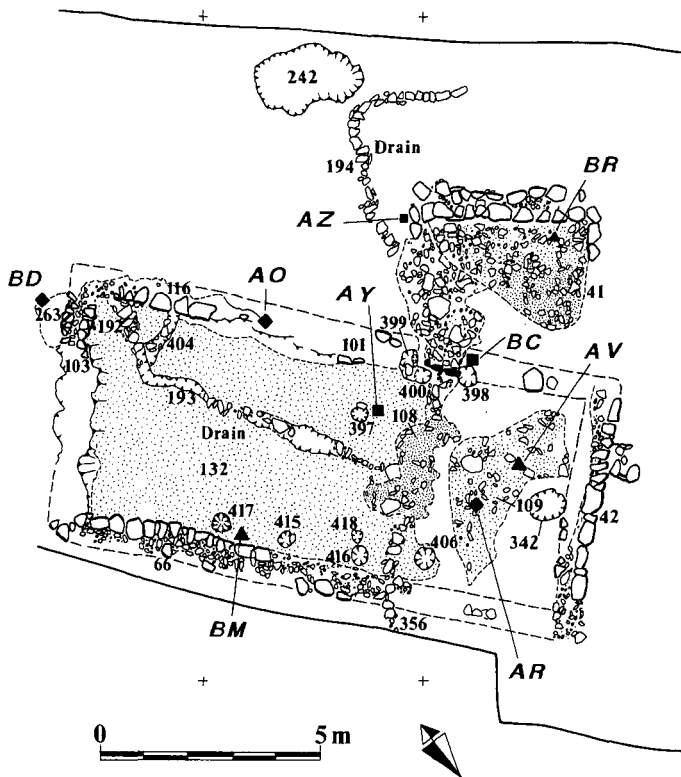
It was probably in this sub-period that small stones (174) were packed into the beam-slot (424) after removal of the timber beam which had supported a partition wall. This packing was in turn partly overlain by smaller, densely packed cobbles in a fine silt matrix (163).

Period III: Building A (illus 9)

Period III was marked by a realignment of the buildings, roughly at right angles to those in Period II, and the levelling of house-platforms. Thus in this area Building E is superseded by Building A. At the north end, a platform for this new building was created by levelling up the floor area of Building E with a spread of compact, dark brown, silt loam (164); at the south end, the platform was excavated from the bedrock to a maximum depth of 0.8 m. The overall result was a level area of about 11 m by 4.8 m internally. The 'ashy' (silt?) infill of the hearth pit in Building E may be evidence of its abandonment and exposure, and thus of an interval between the two buildings.---

Walls The east wall (66) was 11 m long and stood to two courses. Only a few stones of the outer face survived and towards the north end only traces of the core were to be seen (medium-sized boulders 0.15–0.2 m in diameter). Of the west wall a few short sections survived, including a threshold (described below). A section of the inner face (116), 3 m long, was set on a step in the bedrock and was composed of large boulders one course high. Four stones (101) midway along the west wall marked the inner and outer faces of the wall at this point. North of the threshold a linear spread of loose silt (120) may indicate a disturbed area associated with the robbing of the wall. The south wall was only evident at the south-west corner where a section of wall, 1.2 m long and 0.75m high, was built into a dip in the terraced bedrock; elsewhere, the line of this wall was inferred from the terracing. The north wall (42) survived to a maximum of two courses high and measured 5.6 m in length. It was partly supported on the outside by a foundation course of large boulders set in a trench (394), indicating that the platform for Building B was also levelled at this time (see Area 3 below).

Drains A drainage system was required by the newly cut building platform and was incorporated in the construction of the building. Draining both the interior and exterior (upslope) of the building, the drain (195/357) started more than 5 m to the west and ran to the south for 2 m, then turned north-east around the remains of Building E before turning east to pass through Building A. On this course the drain was carried beneath the thresholds in the east and west walls of the building. A second drain, or branch drain (193), ran from the south-west corner of the interior to meet the main drain in a T-junction in the middle of the building. In the south-west corner of the building a short section of drain (404), forming a tributary of the

ILLUS 9 Area 2: Period III,
Building A

branch drain, appears to have gone out of use during the occupation of the building. The capstones had collapsed into the drain which was then infilled by a clay silt.

The drains varied slightly in size and construction. Where the drain was cut into bedrock there was no need for lining stones; elsewhere a U-shaped trench was lined with stones. The drain was covered by flat capstones for most of its length except for two short sections within the building. The branch drain was slightly larger and deeper than the main drain (0.4 m wide and 0.2 m deep, compared with 0.3 m wide and 0.15 m deep), probably because it was cut through solid bedrock. At the point where the drain emerged from the east wall of the building the capstones were covered by a mound of loosely packed stones (350).

Entrances There were two opposed entrances, in the east and west walls. In the west wall, a threshold was composed of three rounded stones (279) forming an edge in line with the inner face of the west wall and retaining a group of closely packed small, medium and large stones (278), including one large flag (280). Post-pits (398 & 399) on either side of the threshold indicated a wooden door frame about 1.3 m wide. The pits were up to 0.4 m in diameter by 0.3 m deep and contained large packing stones. One of these (399) may have replaced another post-pit (400) immediately to its east; this was 0.5 m wide and also contained packing stones. The width of the door-posts was probably about 0.2 m.

The entrance to the east was represented by a pair of post-pits about 1.25 m apart, just inside the line of the wall, but here there was no surviving stone threshold to match that in the western entrance. The post-pits (416 & 406) were up to 0.5 m wide by 0.2 m deep and again contained packing stones. A third, adjacent post-pit (418) may have held a replacement for the southern post.

Internal features Two shallow post-pits (415 & 417) were set 1.2 m apart in a position adjacent to the east wall and south of the entrance. These were about 0.4 m wide by 0.35 m deep, with dark brown silty loam fills

containing a few small angular stones and a single packing stone (in 415). It is not known what type of fixture is represented by these settings for upright timbers although they may have been cruck-blades. A third post-pit (397) may indicate the line of a timber partition across the building, to the south of the entrances. This was 0.35 m wide by 0.4 m deep and was filled with dark brown silt loam and three possible packing stones. The fill was similar to the surrounding floor layer (132), suggesting that the post had been removed at abandonment.

Four floor surfaces were identified. A roughly rectangular area of cobbling (108) covered the T-junction of the drains and concealed the capstones. North of this an area of rubble (109) formed a rough surface which may well be a disturbed area of cobbling. The southern two thirds of the building were overspread by a mottled layer of clay loam (132) with frequent charcoal and small grits, including crushed bedrock; the 'greasy' appearance of this layer suggests it was trampled. Finally, stony soil spreads with charcoal flecks (155 & 375) were mounded over the capstones of the drain in the south-west corner of the building. No definite hearth was identified.

Yard Outside the building to the west, the wall remnants of Building E were filled with dumps of medium and large stones to form a yard surface. The lower levels (76) were rich in pottery in a matrix of brown loam, possibly representing rubbish from the occupation of Building E; above this was a compact layer of cobbling (41).

South of the yard and adjacent drain, a large oval pit (242) was cut into bedrock and natural gravels. Its lower fill was a soft, dark silt (243 & 127) with frequent grits which probably weathered from the sides. This was overlain by a dump of rubble in a matrix of silty loam (125), which contained many pot sherds and fragments of animal bone.

Period IV: abandonment and demolition (not illus)

When the site was abandoned there was some robbing of the stone wall footings, especially at the north end, but much of the masonry simply collapsed, so that quantities of tumble were found within Building A. These were interleaved with thin silt layers which may also have derived from collapsed wall fabric.

At the south end of the site a distinction could be made between modern ploughsoil and the post-occupation silting layers which lay beneath this. Two silver coins were found in the interstices of tumbled rubble (83) at the base of a silt layer (51). These were a silver penny of Edward I (1282–9) and an Edward I silver farthing (1300–2) (see Coins). Their location gives a *terminus post quem* of c 1300 for the abandonment of the building.

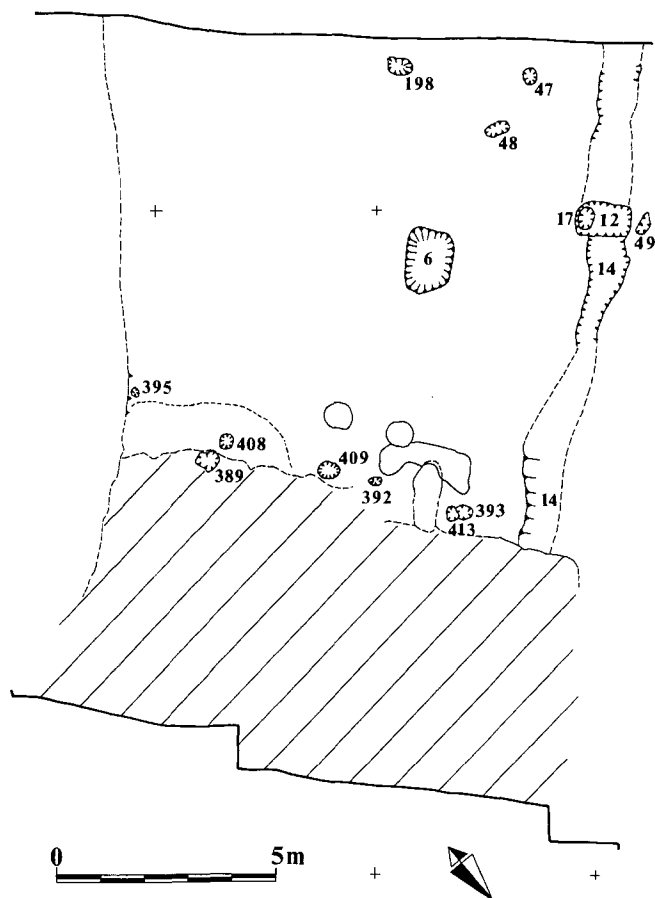
Apart from collapsed masonry, some further rubble, including large field boulders, appears to have been added as deliberate infilling at a later date. This may have occurred when the park was laid out in the 18th century, if not before.

AREA 3

Stratigraphic relationships between Area 3 and other parts of the site occur only in Period III. Furthermore, most of the interrelated stratigraphy in this area was restricted to the site of Building B. The features to the west of this were largely isolated and are discussed in Period I as 'unstratified'. There were no features that could be ascribed to Period II and it is assumed that there was no major structure here at that time.

Period I: early occupation evidence (illus 10)

Boundary ditch The earliest feature in Area 4 may have been a boundary ditch (14). The ditch had a U-shaped profile up to 1 m wide and 0.15 m deep. It was filled by a variety of fills reflecting the nature of the



ILLUS 10 Area 3: Period I, ditch, pits and other early features

subsoil through which it passed (mainly a friable silt loam with fragments of bedrock). This material produced some finds, indicative of disturbance by human activity. The ditch was probably coeval with one or more of the ditches in Area 4 in Period I, forming some sort of plot boundary. Its east end was destroyed by the terrace for Building B (Period III).

Post-pits A number of post-pits occurred. These appeared to belong to at least one post-set structure, but terracing of the site has precluded any possibility of deriving a building plan. This may have been broadly coeval with the Period II structure described below, in Area IV, both because the structure is post-set and because they would have shared a similar alignment. One of these pits (12) cut the boundary ditch, after it had been infilled. This was up to 1.1 m wide and 0.15 m deep. At its south edge was a post-setting (17) 0.44 m wide and 0.16 m deep, surrounded by a group of six packing stones. No post-pipe was observed. Elsewhere, a group of four post-pits formed a row 5.5 m long (pits 392, 408, 409 & 413). These lay on the margin of the terrace for Building B and one of the pits (409) was overlain by make-up for its walls. The pits were of similar size, being from 0.3 m to 0.5 m wide and about to 0.25 deep. One of these was cut by a fifth post-pit (393), which was slightly larger and deeper, and probably contained a replacement post. Pit 389 at the south end of the row may also belong to this group. The settings were big enough to take posts between 0.15 m and 0.2 m thick.

Unstratified features There were six pits cut into the brash to the west of Area 3 which displayed no particular pattern or function. Four lay in a group (6, 47, 48 & 198) to the south of the boundary ditch and one to the north (49). Of these one was a large shallow pit (6), 1.45 m wide and 0.22 m in depth, with a fill of silt and small stones. The sixth feature was a small post-pit (395) in the return between Buildings A and B.

Period III: Building B (illus 11)

In preparation for the construction of Building B a rectangular platform was levelled between Buildings A and C, orientated on the same axis as these. This event is described in two parts, north and south, since the stratigraphy was split by the 19th-century drain which traversed the building.

House stance Only the north part of the north-west quadrant was completely excavated. The primary fill (377) of the terrace was a loose silt, up to 0.2 m deep, with occasional small or medium stones. No finds were encountered in the portion excavated. To the south the terrace (434) cut through the natural gravel down to the fissured bedrock surface. Again this area was infilled with a friable silt loam (179/367), to a maximum thickness of 0.25 m. The absence of stone or shattered bedrock indicate that this material was imported to level the building stance after it was terraced or quarried from the bedrock.

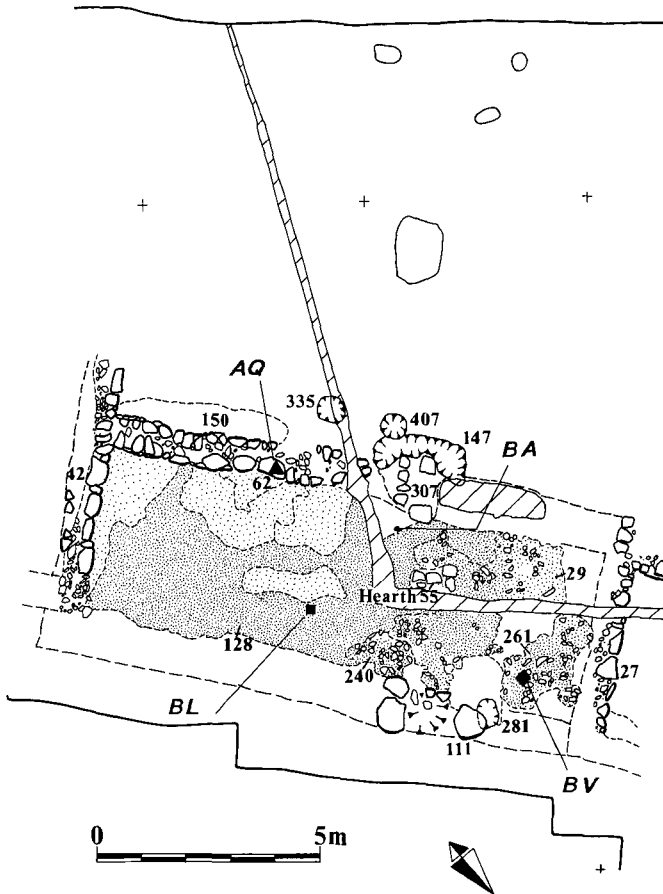
Walls and cruck-setting Building B was built between the end walls of Buildings A and E, on either end, to complete a row of three buildings on a north/south axis. A 5 m length of the west wall was preserved (62). This stood to two courses in places and was set on a shallow deposit of silt; the best-preserved portion was butted against the north wall of Building A. At the opposite end of the building, three stones added to the south wall (27) of Building C may have formed part of the north or end wall of Building B. Several large boulders (111) indicate the line of the east wall. Together, these features indicate a building with internal dimensions of 11 m by 4.2 m.

A possible cruck-blade setting is defined by a dark brown, silt-filled oval pit (281), with a U-shaped profile, measuring 0.6 m by 0.45 m, with a depth of 0.2 m. The pit cuts through a primary cobbled floor surface (261) and lies within the line of the east wall of the building.

Eaves drip gully Immediately outwith the west wall (62) of the building was a shallow linear depression which may have been created by eaves drip from the roof. It measured 5 m in length by 0.7 m in breadth and was 0.1 m in depth. In its base were small thin patches of clay silt with charcoal flecking, but it was filled mainly by a brown sandy silt with some small stones, occasional medium-sized stones and charcoal flecks.

Entrance A paved entrance through the west wall of the building is defined by a shallow east/west slot which contained two large flat stones (307) set in a dark brown gravelly soil. Immediately to the south, four medium stones were laid on the same axis in a similar soil matrix. Another shallow slot was cut through the west end of the threshold, but was aligned at right angles to it; this may have held more paving stones. The surface of this slot was covered by a thin, charcoal-rich deposit of silt.

Outshot To the south of the entrance was a pair of post-pits about 1 m apart and 0.5 m from the west wall face. These may have supported a lean-to shed or store. The more northerly of the two (407) was later than the north/south slot (332) which lay outside the threshold of the building, and suggests a rearrangement of the entrance. The pits were c 0.5 m wide by 0.3 m deep, with fills of gravel, clay silt, or silty loam, occasional charcoal and small stones. The posts in both cases appear to have been removed.



ILLUS 11 Area 3: Period III, Building B

Floor layers and hearth A number of cobbled floor layers were excavated in the north end of the building. In the north-east quadrant there appears to have been more than one phase of flooring, as successive cobbled layers and silty make-up layers were laid down (240, 257-9 & 261), starting with a layer of small and medium-sized stones set directly on the subsoil (261) and finishing with another cobbled surface (240). At the base of the primary cobbled layer a fragment of a cut farthing of William the Lion was recovered, giving a *terminus post quem* of c 1200 for the floor. In the north-west quadrant the silty make-up layer (377) was overlain by stone dumps (354 & 378), evidently make-up layers for a cobbled surface of small and medium stones (29) which covered an area 3.2 m by 2.4 m in extent.

A group of four medium-sized stones (55) at the west edge of the modern drain stood proud of the cobbles and may have been part of a hearth.

In contrast to the cobbled layers in the northern part of the building, the surface in the southern half of Building B (ie overlying the levelling layer on the bedrock surface) was a thin, somewhat patchy, brown sticky silt clay (128/149) which contained bedrock fragments and charcoal. Only the south-west quadrant of this floor layer (128) was excavated. Despite its patchiness it respected the projected east wall-line of the building.

Period IV: abandonment and demolition (not illus)

There was little tumble around Building B. Some was noted along the west wall and, in the south-west corner, a small mound of stones overlay a deposit of silt (as in Building A) and may have

been later field clearance. Below these deposits there was some evidence of destruction by fire. A dark brown silty loam (145), up to 0.15 m thick, contained some medium and large stones and many flecks or larger pieces of charcoal, as well as one piece of burnt wood. This deposit, however, extended only to an area of 2.6 m by 1.14 m.

Robbing of the east wall was almost complete. A stone robber hole on this side was filled with a dark, greyish brown, silt loam which was similar to that filling the possible cruck-setting (281), suggesting that both features were filled at the same time. Part of the cobbling was also disturbed and backfilled in this way.

AREA 4

All the features which are stratigraphically earlier than Buildings C and D at this end of the site have been assigned to Period I, which is further subdivided into sub-phases on the basis of the surviving stratigraphy. (Features which could not be assigned to a sub-phase are described at the end of the section.) Worm action, animal burrowing and root penetration made the definition of features especially difficult in this part of the site, where the subsoil was soft. Thus the depth at which features were defined was often lower than that at which they were originally cut. In addition to these problems, in the final occupation (Period III) a platform was cut into the slope which truncated many of the earlier features, making it difficult to determine which features belonged to Period I or II.

Period IA–C: property boundaries (illus 12)

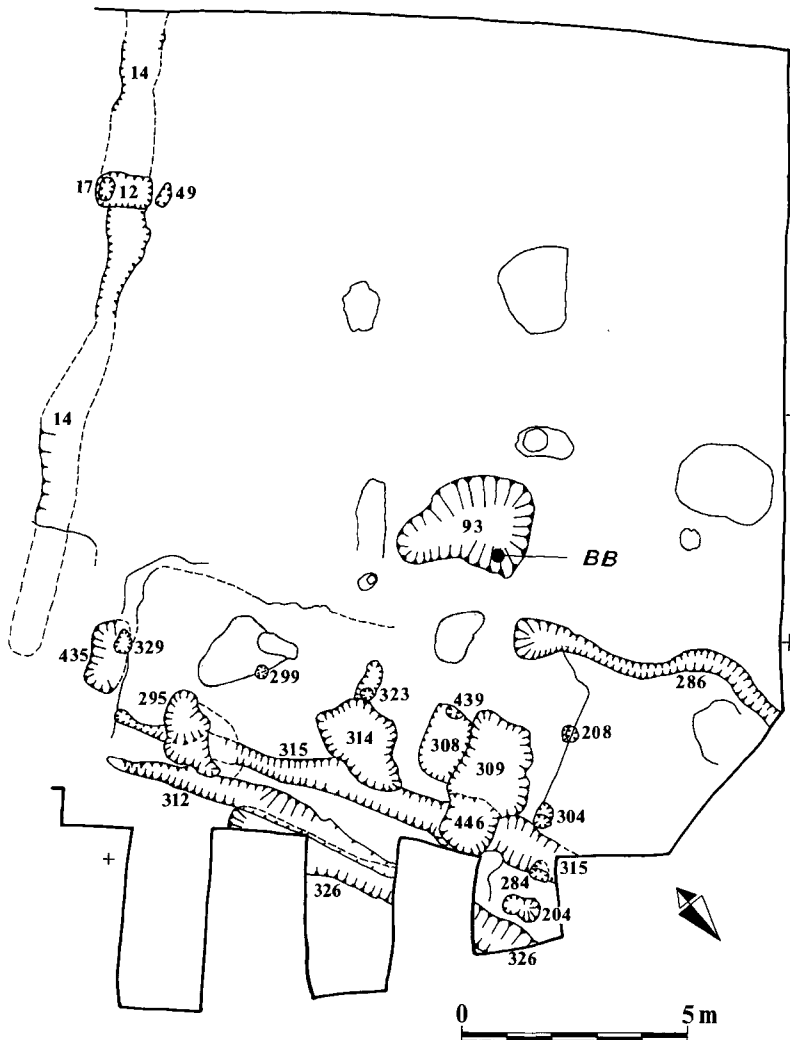
The early phases of Period I comprise a succession of ditches on a roughly similar alignment, roughly NNE/SSW. This suggests the maintenance of a boundary over a considerable length of time, probably in conjunction with the shallow east/west ditch (14) in Area III (Period I). These would have formed two sides of a property boundary, with a gap at the corner, where the ditches come to a butt-end.

Boundary ditches Two ditches (326 & 315) have been assigned to the earliest period of activity on the site. However, it is most unlikely that they were both in use at the same time; indeed it is more likely that they were in use successively. They were parallel to one another, about 1 m apart, and both appear to have drained northwards over the edge of the terrace. The ditches both had U-shaped profiles and were up to 0.5 m deep by 0.8 m wide. Their fills were generally similar, consisting of a brown or tan coloured silt or silt loam (though a grey silt with charcoal also occurred in the upper fill of one ditch (315) towards its north end). The characteristic tan colour reflects a high incidence of aerated subsoil in the fills, which may point to natural weathering as a factor in their becoming infilled.

Subsequent to these ditches, a much shallower north/south ditch (312), 0.7 m wide by 0.1 m deep, was cut through the westerly of the two Period I ditches (326). It was filled with a stony brown silt interpreted as an intentional backfill rather than a result of weathering. Although it was on the same alignment as the earlier ditches, its profile, a shallow U-shape, was completely different and much more akin to that of the east/west gully (14) in Area 3.

Period ID: post-built structure (illus 12 & 13)

Post-dating the sequence of ditches was a post-built structure. A row of five post-pits on a north/south axis, between 2 m and 2.5 m apart (post-pits 435, 299, 323, 439 & 208), formed one side of an L-shaped structure, with an end wall in the north indicated by an adjoining row of post-pits



ILLUS 12 Area 4: Period I, post-set structure and boundary ditches

(284, 304 & 208; the last of these, being common to both rows, would have held a corner post). Post-pits forming the line of the second or eastern long wall were not immediately recorded, as this lay beyond the limit of excavation on that side. It was for this reason that the three small extensions to the east baulk of the site were made, but animal disturbance in this area was severe and no further post-pits were detected. In view of the limited nature of the evidence, it is impossible to be certain about the overall nature of the structure. The two wall lines which were recorded suggest a building with minimum dimensions of roughly 10 m by 4 m in plan, on a stance which sloped from north to south with an overall fall of at least 0.7 m.

Post-pits The post-pits varied from 0.28 m to 0.5 m in width, often narrowing to as little as 0.15 m at the base. The profiles were generally a flat U-shape. The original depths were difficult to gauge since truncation



ILLUS 13 Area 4, Period I, from north, showing the three boundary ditches and the post-pits of the Period ID structure

had removed the original ground surface. One post-pit (323) was probably 0.45 m deep before truncation and was still 0.32 m deep on excavation, while another (284) was 0.38 m deep; both of these would have provided adequate stability for a single-storey structure. One of the post-pits (304) was recut by a smaller, replacement pit, set slightly to the south-east side of the original setting. The best evidence for a post comes from the middle post in the long row (323) where a post-pipe of yellow and grey silt was preserved, 0.16–0.22 m across and 0.34 m deep, in a post-pit filled with a coarse silty-clay with bedrock fragments. On this evidence the posts were about 0.2 m across. Elsewhere, however, the post-pipes were not well defined, perhaps because of dismantling and removal of those timbers which had not rotted *in situ* when the life of this building came to an end.

Other features Within the return of the post-built walls described above were several large, irregular pits (pits 295, 309, 314 & 446). These were up to 2 m wide and 0.4 m deep, with fills of silty loam, silty clay or, occasionally, small or medium stones. Three of these clearly post-dated Period IA–C features (eg they were cut through the fills of the earlier boundary ditches). No function could be ascribed to these features.

Outside the area of the post-built structure and possibly coeval with it was a sinuous V-shaped drainage gully (286) which have provided drainage for surface run-off. The fill was a yellow brown silt with much subsoil as a constituent element, again suggesting weathering of the sides as the main cause of infills. It was in the fill of this gully that Brian Moffat located a concentration of cereal pollen (B Moffat, pers comm).

West of the post-built structure a ‘work area’ was represented by a broad, shallow pit (93), up to 3 m wide and 0.35 m deep. The primary or basal fill was not unlike the subsoil, but over this was a thick fill (0.15 m) composed of a charcoal-rich silt-loam (140), in which was set the base of a green-glazed jug with rouletted decoration. A small hole had been drilled in the side near the base, presumably to allow liquid to drain slowly from the vessel (illus 32, 49). This in itself suggested that this may have been some form of domestic work area, but apart from the charcoal there was no evidence of a hearth.

Period II: Building D (illus 14)

This period was marked by the introduction of stone into the walls of the buildings. A substantial new building was raised on a new axis, roughly east/west. This roof depended principally on an

opposed pair of large posts at either end of the building, and possibly three intermediate pairs of posts in between, although the evidence for these is slight.

Walls The walls of Building D (3 & 4) were up to 1.2 m wide and survived to only a single course in height, faced with medium or large river-washed boulders and infilled with smaller stones of similar type. The surviving wall lengths terminated in the west where the bedrock outcrops across this part of the site and in the east where the later Building C had truncated the present building. Since the bedrock 'stepped up' from the ground surface between the walls at the west end, there was some evidence for supposing that the end of the structure lay at this point. Indeed a few medium-sized stones were found on the step which could have been relict wall stones. On this basis the structure would have measured about 13 m long by about 4.5 m wide, internally.

Floor layers & hearths An area of cobbling (233) was recorded in the north-east corner of the house. The rest of the ground surface within the building did not display any clear signs of flooring, and there was no differentiation between the soil matrix inside the building, beneath its walls or even outside. The surface deposits graded into subsoil and were designated 'subsoil interface layers' in the field record. Furthermore, it was difficult to associate features at the east end of the building with the west end, because the relations between the two ends had been severed by the terracing for Building C (see below).

Two possible locations for a hearth were uncovered. One lay in the middle of the building and comprised an area of paving (34) which was set in a brown silt, 0.1 m thick. This may have served as a hearth, or perhaps as a paved area, since the stones did not show any particular evidence of heat and no ash deposit was present.

A second possible hearth location lay towards the east end of the building where a thin layer (232) of ash and charcoal overlay part of the cobble floor (233). However, there were no particular stones which might be identified as a hearth setting; if these existed they may have been robbed prior to the construction of Building C.

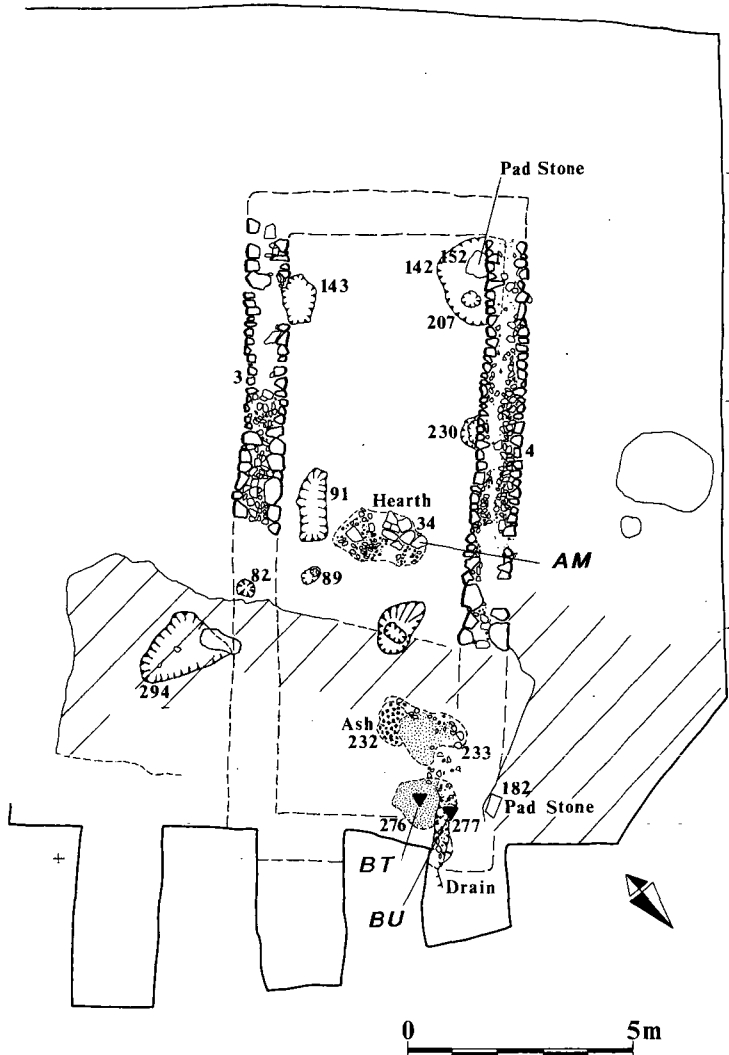
Other internal features A short distance east of the possible hearth, a layer (276) of sticky, dark grey, silt clay (1 m by 0.9 m in extent and 0.1 m thick) had accumulated in an area of subsidence over the infill of a Period I pit (309/446). This deposit was penetrated by roots in antiquity, since they were not visible in the cobbled layer above. This suggests that there was a short period when the interior of the building was open, allowing the penetration of roots into the deposit. It contained two metal artefacts, as well as charcoal, and was rich in other carbonized botanical remains, including abundant cereal grains.

The east end of the building was drained by a gully (277), 2 m long and 0.3 m wide by 0.15 m deep, and filled with pebbly stones in a dark brown silt matrix. On analogy with the drains in Buildings A and C, it is interpreted as a trench cut for a stone-lined drain which was robbed of stone prior to the construction of Building C.

Parallel to the south wall was a slot (91), 1.5 m long by 0.6 m wide and 0.2 m deep, which was filled with a red brown sandy silt with bedrock fragments, and may have served as a sump. This feature has no clear stratigraphic associations; its shared alignment with Building D suggests it may be associated with this structure, but no obvious function could be ascribed to it.

There were two post-pits within the floor area of the building (ie apart from those interpreted as cruck-post features). One small post-pit (89), 0.4 m wide by 0.08 m deep, lay on the same alignment as the slot (91), 0.5 m from the south wall face of the building. A second, large post-pit (438) contained within it a deeper setting for the post (291), with a charcoal-rich fill of dark brown silt and a post-pipe 0.3 m in diameter by 0.16 m deep. Within the post-pipe, a fill of buff coloured silt and bedrock fragments suggested that the post had been removed and the hole deliberately backfilled prior to the construction of Building C.

Cruck settings There were several post-pits, padstones and shallow scoops which may have formed bases for cruck-blades. The best preserved were a pair of post-pits at the west end of the building; elsewhere the

ILLUS 14 Area 4: Period II,
Building D

evidence is more tenuous. The space between bays may have varied, but there is enough evidence to suggest a bay width of about 2.5 m to 3 m.

Both of the well-preserved settings at the west end were set in post-pits (142 & 143) partly overlain by the walls of the building. The northern pit (142) was up to 2 m wide by 0.35 m deep; it was cut into bedrock and glacial tills and was possibly recut twice, as at least two separate settings were identified. In the first instance the primary fill (151) comprised a stony layer on top of which was a flat stone (152) interpreted as the padstone for a post (illus 15). The upper fill (136) comprised a dark brown silt with frequent charcoal flecks through which a second setting (207) was cut, 0.25 m east of the padstone. This was U-shaped, 0.27 m deep and 0.35 m wide, with a fill of friable dark brown silty-loam (166). The padstone and the resetting in this pit would have allowed a post of up to 0.3 m in diameter to be inserted. There is no evidence that the corresponding pit (143) at the opposite wall underwent any replacement. This was a rock-cut pit 1.4 m wide and its bottom level compares well with that of the other pit (142).



ILLUS 15 A padstone (152) for a cruck timber showing within a partly-excavated pit (142) in Building D

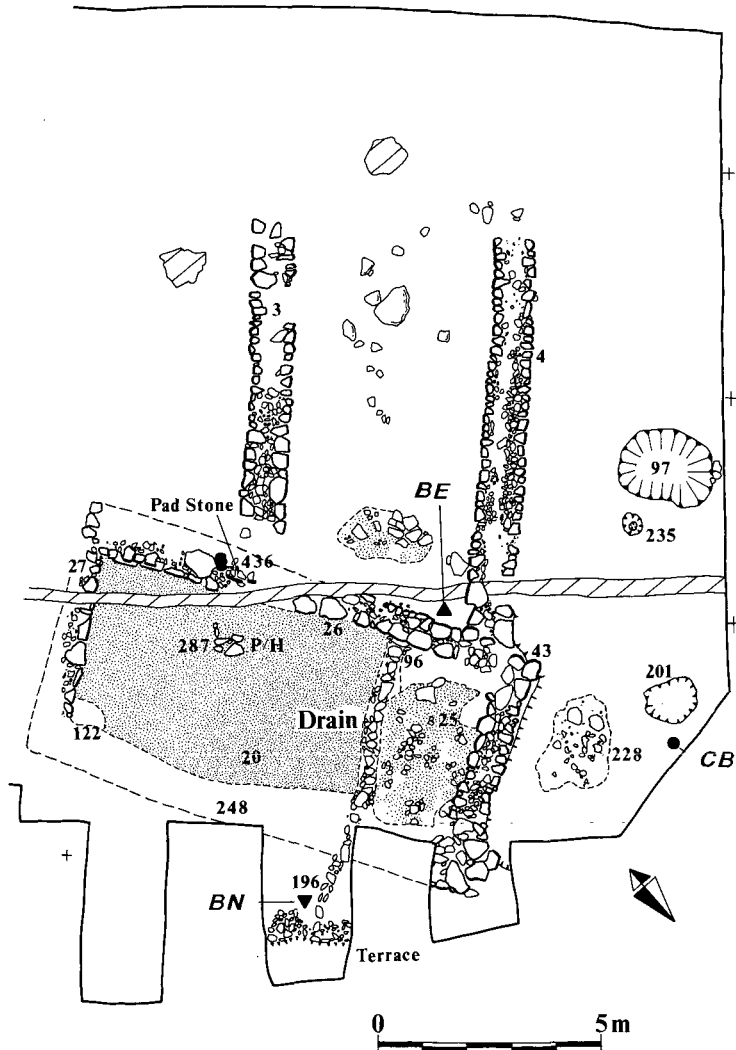
Other candidates for cruck settings include a padstone observed in the side of the later Period III terrace cut (441). This was a large rectangular slab of stone (182), 0.4 m wide by 0.2 m thick, which capped an abandoned Period I post-pit (304), but which was overlain by the north wall of Building C. The padstone was in a suitable location for a cruck setting at the north-east corner of Building D. A fourth candidate is a shallow oval pit (82), 0.66 m wide by 0.05 m deep, within the line of the south wall, in an area robbed of stone-footings. Finally, about 3 m from the corner padstone (152) at the west end was a shallow circular pit, 0.65 m wide by 0.12 m deep, which was partly overlain by the north wall of Building D. It was cut into an earlier and larger shallow oval pit (230), 1.3 m wide by 0.12 m deep.

External pit A shallow pit (294) with an irregular, pock-marked base (indicating disturbance by small mammals) contained a high proportion of carbonized material. It may have been a hearth-pit, but because of its position outside Building D and the lack of associated structural evidence, it may as easily have been used to deposit burnt waste from a hearth inside the building. Its fill was a dark grey silt with a few medium-sized orthostatic stones on the edges of the feature and a few fragments of daub. The botanical sample from the pit was particularly productive of cereal grains and chaff (especially oats, but also barley), and heather was present in quantity.

Period III: Building C (illus 16)

Building C clearly post-dated Building D, since it incorporated the north wall remnant (4) of that structure in its west side. The building was 11 m in length by 4 m in breadth, internally. Like Building D, its walls were constructed with large boulders up to 0.75 m across, again with a small stony core.

Walls Three walls survived on three sides of the building for almost their entire length. The width of the walls was slightly narrower than in Building D at about 0.75 m. They generally survived to one course only, though in short sections a second course was observed, particularly at the angles or ends of the west wall (26). At its highest this wall stood to about 0.5 m. It is unlikely to have stood much higher as a stone wall, in



ILLUS 16 Area 4: Period III, Building C

view of the paucity of stone tumble. Since no sign of a doorway was seen in this wall, the entrance to the building probably lay within the east wall. The masonry element of this wall was represented only by robber debris along most of its length. However, the wall-line was also represented by a low ridge of bedding material, made up of a brown silt loam (248).

Cruck padstone Within the west wall were the remains of a broken padstone (436). This measured 0.4 m by 0.25 m. It was set at 0.56 m above the floor level of the building, towards the inner wall face. There were orthostatic stones set along its east and south sides within the wall core. This is interpreted as a padstone for a cruck-blade and remains the only evidence from Building C for this form of roof support.

Site-levelling and drainage Unlike Building D, the ground beneath Building C had been levelled prior to its construction by terracing a platform into the slope, and a stone-lined, capped or lintelled drain (197) had

been laid across the house stance. The drain was similar in construction to the example in Building A, being 0.3 m wide by 0.15 m deep. It traversed the floor from beneath the west wall to run out over a stone-built edging of the terrace by the opposite or east side of the building. Thus it is likely that the drain also ran beneath the former east wall, cutting the wall make-up or bedding layer (248). Indeed it probably indicates the location of the entrance, for which no other evidence survived.

Floor The north end of the building, bordered by the drain, was occupied by a surface of small and medium sized cobbled and flat stones (25). These covered the whole area within the walls except for a strip 0.4m wide along the west wall. The cobbles were set in a dark, grey brown silt (153), not unlike the soil layer (20) which formed the floor surface throughout the rest of the building. There was one thick charcoal rich lens (122) within this layer, in the south-east corner of the house, but no definitive sign of a hearth.

Partition A post-pit lay towards the south end of the building, at c 1 m from the west wall, where it may mark the line of an internal partition. The pit was up to 1 m wide and contained several packing stones and some bedrock fragments. It was not immediately recognized in the dark, disturbed floor surface, but once this had been reduced by the excavation of several spits the pit could be seen to cut an earlier Period II pit (294), and probably does belong to this building.

Yard The yard to the north of the building was reduced by what may, in part at least, have been natural weathering rather than human and animal action. The ground was scoured away along this edge of the building, almost undermining the facing stones. This left a rough surface composed of a stony layer (228) set in a silt loam, extending over an area of about 2 m by 1.5 m. Over this yard-surface a brown silt layer (183) accumulated to a depth of 0.1 m. A small, stone-filled pit (201) was cut into this, suggesting that use of the yard had already ceased when the pit was dug. The upper fill of the pit contained an almost complete jug (Pottery, no 54) with straight sides and a dark green glaze.

Other features Several other pits were recorded in the yard to the north of Building D. The most substantial of these was a deep, subrectangular pit (97), up to 2.2 m wide and 1.05 m deep. This was recognized only when a spit of brown silt was removed from this area and it may, therefore, pre-date the buildings in this period. The fills were a granular clay loam with blue subsoil fragments over a basal fill of dark brown clay-loam. This suggests that it was filled in two stages, an impression corroborated by the weathering of the sides in the upper part of the pit. It contained a few bones and sherds of pottery, but does not seem to have been a rubbish pit. Its function remains obscure as does its relationship to the rest of the site.

East of the larger pit described above was a small post-pit (235) which came to light after the removal of a further soil spit (0.2 m thick). This had a U-shaped profile, 0.3 m across and 0.1 m deep, with a shallow post-setting within it, 0.06 m deep and 0.1 m across.

Period IV (not illus)

After Building C was abandoned and the superstructure presumably allowed to collapse, the stone footings of the east wall were removed for use elsewhere. The quantity of tumble from the remaining walls was minimal, consisting mainly of a small amount of stone along the inside of the west wall and the outside of the north wall.

Following demolition, the site was covered with a layer of silt, completely filling the terraced platform made for Building C, and by the time of excavation a considerable depth of topsoil had accumulated over the medieval house.

Two modern pits were cut into the bedrock on the west side of the site (not illus). These were up to 0.9 m wide by 0.25 m deep and were filled with a brown silt containing iron nails, bolts

and screws. The 19th century drain (45), already mentioned above, was formed with horseshoe-shaped ceramic tiles (ie a series of U-shaped tiles inverted within a narrow trench). It cut through the tumble and stonework of Building C to traverse the south-west corner of the structure, but then ran beneath a particularly large stone within the north wall of Building D.

BOTANICAL MATERIAL

Sandra Nye & Judith Turner

A total of 16 bulk soil samples was submitted for analysis. They came from drain, pit and destruction deposits. Except where otherwise stated 1 kg subsamples of these were wet sieved using 1.7 mm, 0.5 mm and 0.2 mm sieves. The three fractions were then dried in a cool oven and scanned using a stereoscopic microscope at $\times 10$ magnification.

The plant remains included carbonized seeds, many of which were poorly preserved or damaged and could not be identified to species level. Charcoal was also present, both as fragments and twigs. Only charcoal fragments from the coarsest fraction were picked for identification since the many pieces in the finer fractions were too small for this.

A full list of the species identified is given by Tables 2 and 3 (below). The following is a summary of the main points.

RESULTS

Period I

Context 325 (Area 4) This ditch sample was only found to contain indeterminate charcoal and thus provided no significant information on the earliest phase of occupation.

Context 86 (Area 4) Cereals, oats (*Avena* spp), barley (*Hordeum* sp) and wheat (*Triticum* sp) were recovered from this midden pit deposit. The wheat grains included some which could be bread wheat (*Triticum aestivum*), and the barley appeared to be of a hulled variety. The oat flower base recovered was too damaged to be identified to species. The remains of seeds of fat hen (*Chenopodium* sp), sedge (*Carex* sp), vetch (*Lathyrus/Vicia*), corn spurrey (*Spergula arvensis*) and wild radish (*Raphenes raphanistrum*) were found. Fragments of heather (*Calluna vulgaris*) and a minute piece of charcoal (2 mm), possibly oak (*Quercus* sp), were also recovered.

Context 92 (Area 4) This midden pit-fill produced three poorly preserved cereal grains and a fat hen seed.

Context 331 (Area 4) The largest piece of charcoal recovered from the subsample of this upper ditch fill was a piece of birch (*Betula* sp), probably from a twig of c 11 mm diameter. The remaining charcoal was birch and hazel (*Corylus avellana*). There were also charred remains of heather, flowers, leaves, shoot tips and stems. The only possible food debris elements were a few poorly preserved oat grains and dock seeds.

Context 449 (Area 4) A sample of this organic-rich pit fill from below the cobbles in Building D was found to contain poorly preserved cereals, including oats, a piece of hazel nut shell, a possible piece of heather stem and some indeterminate charcoal.

TABLE 2

Carbonized plant remains (excluding charcoal) identified by species and context

Context	86	92	325	449	249	276	331	44	60	104	355	84	129	145	96	139
<i>Agrostemma githago</i>						1										
cf <i>Artriplex</i>						1						1				1
<i>Avena gl/grain</i>	14			5	15	23	5	10	3		1	31	1		1	
<i>Brassica/sinapis</i>						1										
<i>Carex</i> sp	1					1		1								
Caryophyllaceae					1	1		1								
<i>Cerealea</i> indet.	17	3		6	66	98	1	16	7	5	2	38	5	5	14	
Chenopodiaceae						6										
<i>Chenopodium</i> sp	5	1			1			2							4	
Compositae					1	4										
<i>Galium aparine</i>																3
Gramineae					2	2										
<i>Hordeum</i> sp	7				36	3		7				3	2		3	
cf <i>Hordeum</i> sp				1												
<i>Lathyrus/Vicia</i>	2				3	4				1		1				
<i>Luzula</i> sp						1										
<i>Polygonum aviculare</i>					1	1										
<i>P. convolvulus</i>					1											
<i>P. cf convolvulus</i>					2								1			
<i>P. lapathifolium</i>					2	1										
<i>P. persicaria</i>					1	1										
<i>Rumex</i> sp					1	3	2									
<i>Rumex acetosella</i>					2							1				
<i>Secale</i> sp					14	4		5				3			1	
<i>Spergula arvensis</i>	1				1											
cf <i>Spergula arvensis</i>						2										
<i>Stellaria media</i>					1	4										
<i>Tripleurospermum maritimum</i>					1	4										
<i>Triticum</i> sp	1					2		4				7			4	1
<i>T. aestivum</i>	7			1		20						10			1	
<i>Viola</i>						1										
Indet.				1	9	7	2	+		4						
<i>Potamogeton</i> sp.																1
<i>Crataegus monogyna</i>												1				
<i>Silene</i>												1				
<i>Sorbus aucuparia</i>													1			
Bryophyte					+	+	+			+						
<i>Calluna</i> leaves	1					2										
<i>Calluna</i> flowers					47	4	6	1				3				
<i>Calluna</i> tip	1				2	6	10									
<i>Calluna</i> stem	2				+	+	+		+	+	+				+	1
Chaff: <i>Avena</i> awn				2	m	12										
lemma frags					m	20						2				
<i>Avena</i> flower bse	1				20			1								
<i>Hordeum</i>						5										
<i>Corylus</i> shell frag.				1		11		15		1						
<i>Raphanus</i> seedcase frg	1				1	2										
Rosaceae capsule					1											

Period II

Context 249 (Area 4) The weight of sample collected from this context was 525 g. This deposit from a pit, possibly a hearth, was rich in charcoal, cereal grains and chaff. There was no time to pick out and identify all the chaff and charcoal pieces. The predominant identifiable cereal was a hulled barley, possibly a six-row type (no asymmetrical grains were noted). Rye (*Secale cereale*) and oats were found, most of the chaff being lemma and awn fragments of oat. A single flower base indicates that the oats included *Avena sativa*, the

TABLE 3

Charcoal identified by species and context

Context	86	92	325	449	249	276	331	44	60	104	355	84	129	145	96	139
<i>Alnus glutinosa</i>					2											
<i>Alnus/Corylus</i>								3								
<i>Betula</i>							15	2			2					
cf <i>Betula</i> sp													1			
<i>Corylus avellana</i>					8		5									
cf <i>Corylus avellana</i>										1						
<i>Fraxinus excelsior</i>									1						14	
<i>Prunus</i> sp					12											
<i>Quercus</i> sp					1											
cf <i>Quercus</i> sp	1							5		1						
<i>Salix</i>					1	3		2					1			
<i>Ulmus</i> sp					2											
cf <i>Ulmus</i> sp					18											
Indet.	+		+			+	+	+	+	+			+			+

common cultivated oat. Seeds of species (eg chickweed and corn spurrey) which could have been growing as weeds in the cereal crop were also recovered, although they might also have grown on any cultivated or waste ground in the area. Leguminosae seeds of the *Lathyrus/Vicia* type were recovered. These were 2–3 mm in diameter and could be of species common in grassland and thickets; alternatively, the larger ones might have been collected or cultivated for food. A capsule of a species of the rose family was recovered. In size it compares well with those of modern *Alchemilla glabra*, a common grassland species. There were many heather flowers and stems (up to 5 mm diameter), also mosses and sheep's sorrel which could have been collected accidentally with the heather from nearby heathland, or the former collected deliberately as packing material and the latter as food.

A lot of the charcoal from this sample was difficult to identify since it readily broke into flakes, but it appeared to be elm. Other charcoal, including twigs, included a wild cherry type (*Prunus* sp), hazel, a little alder (*Alnus glutinosa*), oak and willow (*Salix* sp).

Context 276 (Area 4) In contrast to the lower fill of pit 309 (Period I, 449; above), this upper deposit contained abundant cereal grains and herb seeds. The main identifiable cereals were bread wheat and oats. Barley and rye were also recovered and there were abundant indeterminate cereal pieces. The few chaff pieces included battered fragments of barley rachis. *Vicia*-type seeds and fragments of hazel nut shell were present. The remaining seeds were of species seen today as 'weeds of cultivation' (eg corn cockle and mayweed), grassland species (eg sedge and violet), and species indicative of enriched disturbed soils such as fat hen, docks, *Polygonum* spp and the Chenopodiaceae. The remains of heather and mosses were also found. The only identifiable charcoal was willow, which could have been used in baskets to store the grain.

Context 139 (Area 4) The only plant remains recovered from the fill of this post-pit in Building D were a poorly preserved wheat grain and a seed of orache.

Period III

Context 44 (Area 4) This stone-covered drain in Building C contained the remains of hazel, rye, barley, oats and wheat. The oat grains could not be identified to species and were probably a mixture of wild and cultivated species. Two seeds of fat hen, a sedge nutlet and one seed of a member of the chickweed family were also recovered. Charcoal was present, the largest piece was 12 mm × 6 mm × 3 mm and proved to be of willow; the remainder included pieces of hazel or alder, birch, heather (*Calluna vulgaris*) and possibly oak. Indeterminate pieces of charcoal and twigs of 5 mm diameter were also present.

Context 60 (Area 2) Oats and indeterminate cereals were recovered from this covered drain. Also present were ash (*Fraxinus excelsior*) charcoal and the remains of heather.

Context 104 (Area 2) The plant remains from this stone-covered drain in Building A were poorly preserved and difficult to identify. The remains of food plants included hazel, cereals and legumes. Charcoal was also present, possibly hazel and oak.

Context 355 (Area 3) The identifiable plant remains recovered from this drain were a few cereal grains, remains of heather and some birch charcoal.

Context 96 (Area 4) This lower fill of a pit within a yard (and possibly pre-dating it) was found to contain cereal grains and 'weed' seeds (*Potamogeton*). There was also some indeterminate charcoal and a fragment of heather stem.

Period IV

Context 84 (Area 2) This post-occupation silt layer in Building A contained a mixture of cereals, oats, barley, rye and wheat. Some of the wheat grains appeared to be bread wheat (*Triticum aestivum*). Also recovered were seeds of orache, vetch, campion (*Silene* sp) and hawthorn (*Crataegus monogyna*). Orache could have been growing as a 'weed' in the cereal crops while vetch, campion and hawthorn grew in thicket and woodland. Apart from campion, the seeds and fruits of these species could have been collected for food, but they could also have been collected accidentally with firewood. Heather flower, chaff and very small charcoal fragments of willow and birch were present.

Context 129 (Area 3) This silt layer beneath the tumble in Building B contained cereals, oat, barley and some poorly preserved grains which could not be identified. Also present was rowan (*Sorbus aucuparia*) and black bindweed (*Polygonum convolvulus*), both of which have been collected for food in the past.

Context 145 (Area 3) The large pieces of charcoal (average 35 mm max) recovered from this sample from Building B proved to be fragments of ash, probably from large timbers. Also recovered were smaller pieces of ash, some heather stems, indeterminate charcoal and cereals.

SUMMARY

The deposits richest in identifiable botanical remains were from pits and hearths of Period II. There were the remains of cereals, including oats, barley, rye and wheat, many in a poor state of preservation. The oats present were probably a mixture of wild and cultivated varieties, possibly including *Avena sativa* (identified from floret bases). The hulled barley was either a two- or six-rowed variety. The wheat grains included bread wheat (*Triticum aestivum*). It is not possible to be certain whether all of the cereals were grown as separate crops. The oats and rye may have been 'weeds' in the main barley and wheat crops, or they may have been cultivated deliberately as part of a mixed cereals crop. The presence of so much oat chaff suggests that oats were threshed by the hearth and that, in contrast, the other cereals were threshed and perhaps even grown elsewhere (though the 'weeds' present do not suggest importation). Alternatively, oat chaff is abundant because it was used as kindling or as a packing material.

Of the herbs recovered, some could have been growing as 'weeds' of the cereal crops (eg corn cockle, corn spurrey) and some on the disturbed, enriched ground about the settlement (eg

fat hen, dock). Other species could have been collected for food (eg *Polygonum* spp, vetch), or for other household uses such as strewing (eg sedge), but it is also possible that they were gathered accidentally with food or firewood or even carried into the houses on the clothes or feet of their occupants.

Many remains of heather plants and many fragments of charcoal were also noted in Phase II, the more abundant charcoal being birch, hazel, elm and *Prunus* sp. Also present were alder, oak and willow. These are native species which could all have been collected for fuel from nearby woodland. Heather is a very useful plant, providing fodder, dye and material for thatching, bedding and rope. Elm, alder, and oak could have been used in the construction of buildings and furniture making, with birch, hazel and willow providing finer, flexible twigs for basket making and thatching. In the destruction layer from Building C there were many large pieces of ash (up to 50 mm) which suggests that ash was a timber used in the construction of that house. Timbers used for the construction of Period I houses could, of course, have been reused or used as fuel in the later phases.

A similar although smaller range of species was found in the remaining periods of occupation and this suggests that there was little change in economy or environment during the life of the settlement overall.

ANIMAL BONE

Dick Grove

The faunal remains come from all the recognized phases of occupation (Period I–III) and post-occupation or abandonment (Period IV). A total of 578 bone fragments was recovered, 233 of which could be identified to species and skeletal part from four species; 61% of the unidentified fragments were of ribs, vertebrae or longbones.

Unfortunately, preservation of the bone was exceedingly poor. Fragments were friable with eroded surfaces, often making them impossible to identify, and in no instance could any measurements be taken. This is illustrated not only by the survival of the bones from a limited number of the larger mammals but also by their distribution by skeletal part. The sample contains 174 (77%) teeth fragments, including all the pig and all but one of the horse remains; furthermore, the teeth themselves were frequently damaged, which has made it impossible to assess the degree of wear. The faunal remains are of limited value, therefore, in terms of interpreting the economy of the site and this report must necessarily remain descriptive.

During the period of the site's occupation (Periods I–III) the majority of bone fragments appear to have been deposited haphazardly in floor levels, hearths, walls and miscellaneous layers. The horse remains from a Period I pit fill (context 302, Area 2) included a fragment of a tibia shaft (a horizontal cutmark across its posterior side may have occurred during skinning)

TABLE 4
Bone Fragments identified to species by period

Period	Cattle	Sheep	Pig	Horse
I	26	10	1	9
II	23	4	–	–
III	30	32	1	1
IV	55	24	6	4
Totals	134	70	8	14

and eight teeth, from a minimum number of four individuals. The remaining bones in the deposit are solely from the shafts of longbones of cattle and sheep with no epiphyses.

The bones from the post-occupation layers (Period IV) appear to have suffered the same degree of decay as those from earlier levels and were presumably subject to similar selective preservation. Furthermore, unless these levels received rubbish from other, still occupied, areas of the site, these bones must derive from secondary contexts.

COINS

J D Bateson

- 1 **England, Edward I, silver penny**, class IVc (1282–9), mint: Bury St Edmunds [Robert de Hadeleie], worn, weight 1.32 g [20.4 gr], die axis 130° (North 1991–4, 1025). Context 51, Small Find AO; Period IV; Area 2.

Edwardian pennies came to Scotland in huge numbers and appear to have constituted over 90% of the coinage during the first half of the 14th century. Although some still appeared in hoards deposited as late as the 1370s, this piece, of an early class, was perhaps lost around 1300.

- 2 **England, Edward I, silver farthing**, class IX [1300–2], mint: London, slightly worn, weight 0.33 g [5.1 gr], die axis 0° (North 1991–4, 1057). Context 51, Small Find AR; Period IV; Area 2.

Cut coinage ended with the introduction of round halfpennies and farthings in 1279. However, in contrast to the abundance of Edwardian pennies, finds of the smaller denominations are quite rare. This is probably due to trade and the invading armies bringing mainly the higher value penny northwards. Equally, though, finds of the round Scottish halfpennies and farthings are also scarce. The slight amount of wear on this specimen suggests loss during the first decade of the 14th century.

- 3 **England, John, silver cut halfpenny**, from short cross silver penny, class Vbii [1205–10], mint: London mint, moneyer-uncertain Willelm, fairly worn, weight 0.73 g [11.3 gr], die axis 180° (North 1991–4, 970). Context 263, Small Find BD; Period III; Area 1.

There is now an extensive list of finds of short cross pennies and cut halfpennies from throughout Scotland. The majority, as with this example, are English. It is uncertain whether this specimen arrived in Scotland as an official cut piece or was cut as a matter of convenience by the owner. The short cross coinage was replaced in Scotland in 1250 and while this example from Springwood Park could have circulated until then, its degree of wear would suggest loss probably by 1220.

- 4 **Scotland, William the Lion, silver cut farthing**, from crescent and pellet penny, type I [1174–1180], mint and moneyer uncertain, incomplete and broken in two, fairly worn, weight and die axis uncertain (Burns 1887, cf 29A). Context 261, Small Find BV; Period III; Area 3.

Finds of William's crescent and pellet coinage are rare, pennies having been recorded from Perth and from Fala, Midlothian, and a cut halfpenny from Hollywood Church, Dumfriesshire. A cut farthing is therefore an important addition to the corpus of finds and shows the increasing use of coinage in the latter half of the 12th century. The crescent and pellet coinage was replaced in a major recoinage in 1195 by the short cross penny and is unlikely to have circulated after that date. The cutting was probably carried out officially, at the mint, to provide smaller value coins.

METAL OBJECTS

Barbara A Ford

COPPER ALLOY (ILLUS 17)

Three buckles were recovered, numbers 2–4, and one brooch or buckle, no 1. Number 1 was found in a layer over wall tumble in Building A. Numbers 2–4 are unstratified. Number 1 is a plain annular ring which was fastened with an iron pin. This is a common form in use in the 13th and 14th centuries and was often used to fasten cloaks or worn at the throat to secure undergarments (LMMC 1940). Similar types were also used to fasten leather boot straps. Examples have been found with leather attached on the pelvis of human skeletons at Austin Friar's, Leicester, which were originally probably used probably to fasten hose or a codpiece (Clay 1981, 133, fig 48). Numbers 2–4 are small, single-sided buckles: no 2 has lost its pin bar; nos 3 and 4, however, still have part of their copper-alloy pins attached. Buckles of this type were used probably to secure narrow belts or leather straps on garments or harnesses. Number 4 is similar to a late 14th-century example from Perth and also to one from Exeter (Ford 1987b, 122, fig 59, no 5; Goodall 1984, fig 190, M74).

Number 5 is a key of London Museum's type IV (ie following LMMC 1940). It was recovered from a floor layer in Building E. It has a moulded solid stem which does not project below the bit. Shanks rarely projected below the bottom of the bit after the 13th century, but by the 14th and 15th centuries they again lengthen. This key is roughly dated to the 13th century and was probably used to open a small casket or box.

Number 7 is a horse harness pendant of London Museum's type IV (LMMC 1940; Griffiths 1986, fig 5). These pendants hung from rectangular or circular fittings like those found at Perth and London which were riveted directly to the leather straps (Ford 1996, no 61; LMMC 1940; Griffiths 1986, fig 21, a–d). Number 7 is comparable with a circular pendant with attachment from Lyveden, Northamptonshire, which has a slightly shorter arm (Bryant & Steane 1971, fig 12n). Two further pendants from Northampton and Southampton, both like no 7, are gilded on their convex surfaces (Oakley & Webster 1971, 250, fig 107, no 9; Harvey 1975, no 1749). Number 6, which is also gilded on one surface, may well be part of another such pendant. Griffiths (1986) offers the following information on horse harness pendants: they may have originated as early as the 12th century, but the majority date to the 14th century; they were usually from the trappings of the horses of retainers, bailiffs or stewards, or perhaps were used on working animals to indicate ownership by an estate or manor; small pendants (like no 7) may well have been used in conjunction with bells as fringing on reins. Finally, a large number have been found on agricultural land and the incidence of examples at Springwood, along with the many examples of horseshoes, indicates that horses were important to the farming regime of this community.

Numbers 8 and 9 are both mounts. They could either have been decorative mounts for a horse harness or were riveted to clothing, leather or wood. Number 8 is in open work: a central fleur-de-lis is surrounded by a circle, decorated with stamped dots. Another mount decorated with stamped dots was found at Perth (Ford 1987b, 122, fig 59, No 11). The fleur-de-lis was a common decorative motif in the 13th and 14th centuries and usually had no heraldic significance. Number 9 is made from an iron sheet, coated with copper alloy. One surface is scored with crudely executed decoration.

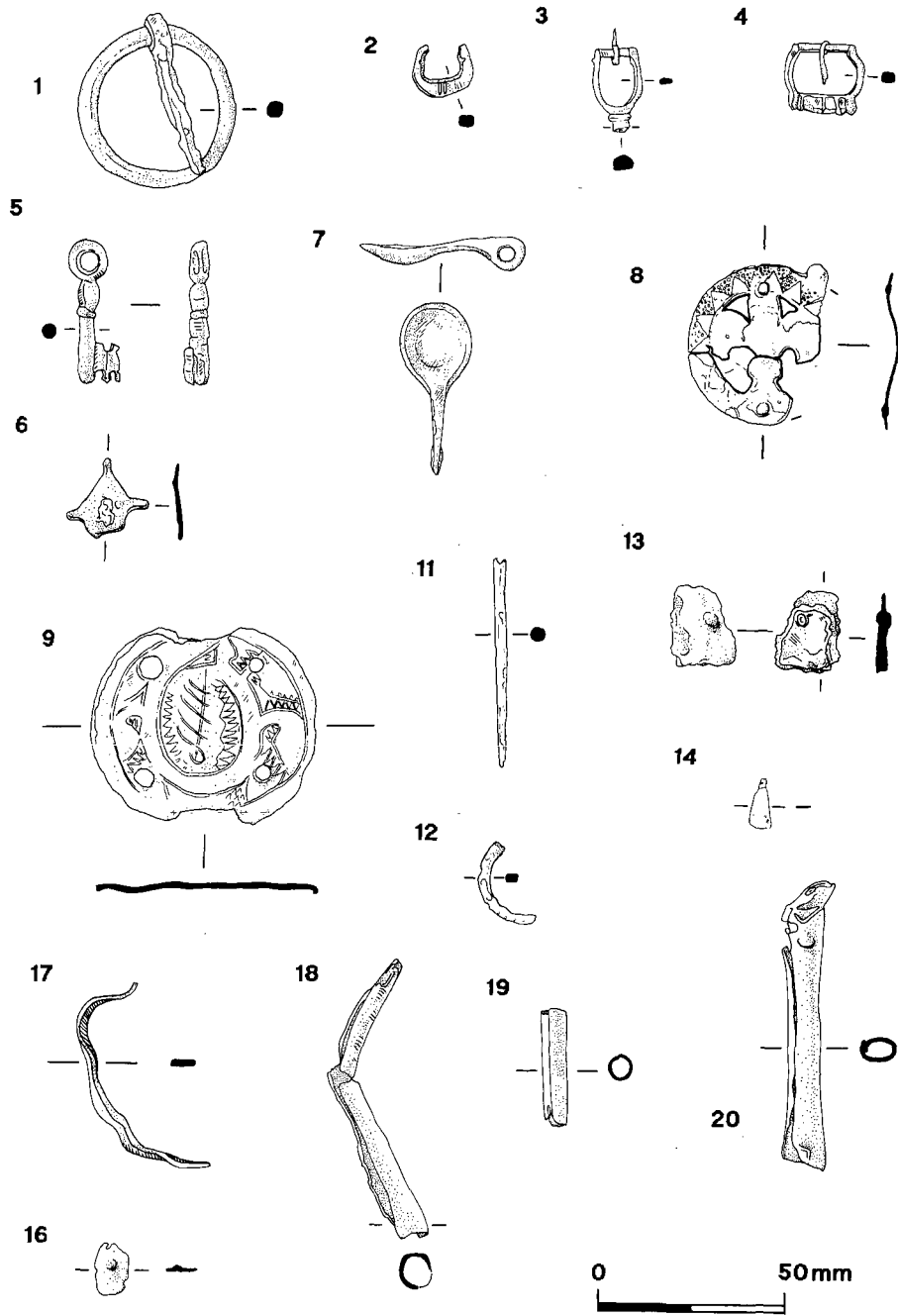
Number 10 is a small fragment of folded sheet and probably part of a rivet of the sort commonly used to repair vessels (Ford 1987b, 127); it was recovered from loose silt to the north of the threshold of Building A.

Other finds from the site include a needle (no 11) and a ring fragment (no 12) with a scalloped edge, possibly part of a brooch. It was recovered from a floor layer in Building C.

Five fragments of sheet or strips (nos 13–17) were also recovered: no 13 is a fragment of iron sheet with a thin plate of copper alloy held in place with a copper-alloy rivet; no 14 was found on a floor layer in Building A; no 15 was from a pit cut into the surface of a yard, and no 16 from the terraced platform of Building B. Numbers 18–20 are all fragments of sheet which have been rolled into tubes. Number 18 tapers to a point at one end and is probably a tag. Tags were used to wrap around the ends of leather thongs or laces for shoes or clothing. Numbers 19 and 20 are probably distorted or broken fragments of other tags.

Catalogue (illus 17)

- 1 **Brooch/buckle.** Diameter 42 mm. Copper alloy, cast annular ring. The iron pin is looped around the ring. Context 84; Small Find AS; Period IV; Area 2.
- 2 **Buckle.** Length 15 mm. Single sided buckle. Cast, the edges have then been slightly bevelled; file marks visible. The frame is decorated with two incised grooves. Pin bar missing. Context 1; Small Find AB; topsoil.
- 3 **Buckle.** Length 23 mm. Single sided stirrup shaped buckle with nipple like projection. Cast with a flat back. File marks on surfaces. Rectangular cross-sectioned pin-bar with part of copper-alloy pin remaining. Context 1; Small Find AD; topsoil.
- 4 **Buckle.** Length 22 mm. Single sided D-shaped buckle. Cast with flat back and slightly rounded face. The slightly rounded sides terminate in a rectangular projection which is decorated with a central incised notch flanked by two raised ridges. Rectangular cross-sectioned pin bar with part of copper-alloy pin remaining. Context 1; Small Find AJ, topsoil.
- 5 **Key.** Length 39 mm. Solid stem with circular cross-section and moulded decoration. The bit has three ward cuts. Circular bow. Context 106; Small Find BP; Period I; Area 2.
- 6 **Harness pendant.** Length 21 mm; width 22 mm. Crudely cut from a sheet. Traces of gilding on one surface. Context 1; Small Find AC; topsoil.
- 7 **Harness pendant.** Length 46 mm; width of bowl 20 mm. Cast. Circular dome shaped with small projection, the end of which is flattened and pierced with suspension loop at right angles to the bowl. Traces of gilding remain on the convex surface. Context 83; Small Find AT; Period IV; Area 2.
- 8 **Mount.** Diameter 42 mm; thickness 1 mm. Openwork mount with an outer ring and central fleur-de-lis. Made from a thin domed sheet. The outer ring is decorated with stamped dots. Pierced with two holes containing copper-alloy studs. Traces of gilding on the upper surface. Part of the outer ring is missing. Context 1; Small Find AG; topsoil.
- 9 **Mount.** Length 60 mm; width 53 mm; thickness 1 mm. Copper-alloy plated iron disc. Pierced with four holes. There is a scored pattern on the upper surface with some areas filled with zig-zag decoration. Context 1; Small Find AH; topsoil.
- 10 **'Paperclip' rivet (not illus).** Small fragments of folded sheet. Context 120; Small Find BC; Period III; Area 2.
- 11 **Needle.** Length 57 mm; width at eye 4 mm. Made from a rolled sheet. Broken across eye and at tip. Context 1; Small Find AA; topsoil.
- 12 **Ring.** Fragment of a flat cast ring with finely scalloped outer edge. Context 20; Small Find BK; Period III; Area 4.



ILLUS 17 Copper-alloy objects 1-20

- 13 **Sheet.** Length 20 mm. Fragment of copper-alloy sheet riveted to a fragment of iron sheet. Copper alloy rivet still in place. Context 1; Small Find AI; topsoil.
- 14 **Sheet.** Thickness 0.5 mm. Small triangular fragment. Context 132; Small Find AY; Period III; Area 2.
- 15 **Sheet** (not illus). Thickness 0.5 mm. Small fragments. Context 161; Period III; Area 4.
- 16 **Sheet** (not illus). Thickness 0.5 mm. Small fragment. Context 257; Small Find BL; Period III; Area 3.
- 17 **Strip.** Length 57 mm. Cut fragment of curved sheet. Tapered to a point at both ends. Context 50; Small Find AL; Period IV; Area 2.
- 18 **Tag.** Length 72 mm; thickness of sheet 0.75 mm. Length of sheet rolled into a tube tapering to a closed point at one end. Bent. Context 1; Small Find AE; topsoil.
- 19 **Tube.** Length 30 mm; thickness of sheet 0.75 mm. Length of sheet rolled into a tube. Broken at one end. Context 1; Small Find AF; topsoil.
- 20 **Tube.** Length 86 mm; thickness of sheet 0.75 mm. Length of sheeting rolled into a tube, now bent and flattened at both ends. Context 1; Small Find AN; topsoil.

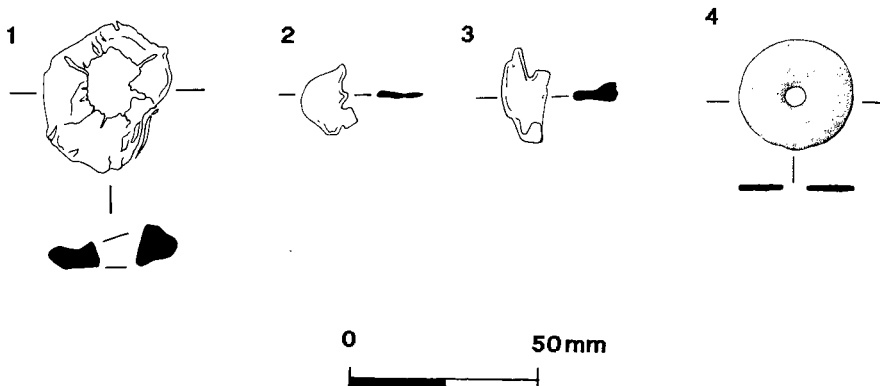
LEAD (ILLUS 18)

Only four objects of lead were recovered from the site. Number 1 is an irregularly shaped piece of lead which shows signs of having been pressed against a surface. It was possibly used to plug a hole (eg to repair a pot). Evidence of lead plugs being used to repair medieval ceramic vessels has been noted at Perth where two lead patches or plugs were recovered; one was still attached to a sherd of pottery (Ford 1987c, 130).

Numbers 2 and 3 are both small fragments of sheet of uncertain function; no 2 was found in the wall tumble from Building E and no 3 was recovered from a pit cut into the surface of a yard.

Number 4 is a flat disc with a central perforation. It was found over wall tumble in Building A. It could have been used as either a spindle whorl or a weight. Similar lead objects have been found at Threave Castle, Galloway; Perth; and at Wharram, Yorkshire (Caldwell 1981, 111; Ford 1987c, 130; A R Goodall 1979, 115).

- 1 **Plug.** Max diameter 41 mm. Oval fragment, centre missing. The back has been smoothed in places. The upper surface is rough. Context 1; Small Find CG; topsoil.



ILLUS 18 Lead objects 1-4

- 2 **Sheet.** Thickness 2 mm. Small corroded fragment. Context 154; Small Find AZ; Period IV; Area 4.
- 3 **Sheet.** Thickness 2.5 mm. Small fragment, bent and corroded. Context 161; Small Find BF; Period III; Area 4.
- 4 **Spindle whorl or weight.** Diameter 29 mm; thickness 2.5 mm. Flat disc with central perforation. Diameter of hole 6 mm. Context 84; Small Find AU; Period IV; Area 2.

IRON

Belt equipment (illus 19)

Number 1 is possibly a belt-slide for use with a narrow belt. It would have been used to hold the free end of the belt in place. Numbers 2 and 3 are both buckles; no 2 is a rectangular buckle in a very corroded condition. Two similar buckles have been found at Seacourt, Berkshire, but had the addition of looped necks (Biddle 1962, 180, fig 30, nos 22 & 23). It is not possible to tell if no 2 originally had a looped neck. Buckles of this type were mainly used for spur straps, although no 2 seems rather large for this purpose and is probably from a horse harness. Number 3 is a small buckle, with a D-shaped frame, which was recovered from a floor layer in Building E. A similar buckle with pin still attached has been found at Llantrithyd, South Glamorgan, from a context of the early or mid 12th century (Charlton *et al* 1977, 48, fig 2, no 40). Also, four very similar buckles were found in late 11th-century graves at Stockbridge Down, Hampshire (Hill 1937, pl 1, 1d-f). They were found either at the hip or pelvis and are probably belt buckles.

- 1 **Belt slide.** Length 29 mm. Crudely made from a thin strip with pointed ends which overlap. Context 54; Period IV; Area 3.
- 2 **Buckle.** Width 37 mm. Rectangular buckle with integral plate. The plate is fragmentary and is pierced with a hole to take the pin. Context 1; topsoil.
- 3 **Buckle.** Width 37 mm. Very corroded, D-shaped buckle. The ring is broken at the pin bar, pin missing. Context 163; Period II; Area 2.

Heckles (illus 19)

Three heckle teeth were recovered. One was unstratified; two come from Area 3 of which one was recovered from the floor of Building B. Heckle teeth are from combs used in preparing wool or flax for spinning. Heckle parts with the teeth in place have been found at Norwich (Margeson 1985, 62, fig 46, nos 80-2). It is more common, however, to find loose teeth, as often the rest of the comb is made of wood. Other examples of heckle teeth have been found at Castle Acre Castle in Norfolk, Wharram Percy in Yorkshire, and at Perth (Goodall 1982; I H Goodall 1979, 118; Ford 1987a, 141).

- 4 **Heckle tooth.** Length 149; diameter at head 6 mm. Circular in cross-section. Tapers towards one end which is missing. Context 54; Period IV; Area 3.
- 5 **Heckle tooth** (not illus). Length 101 mm, diameter at head 6 mm. Circular cross-section. Part of head and tip missing. Context 149; Period III; Area 3.
- 6 **Heckle tooth** (not illus). Length 112 mm. Circular cross-section. Bent at head. Tip missing. Unstratified.

Horseshoes and horseshoe nails (illus 19)

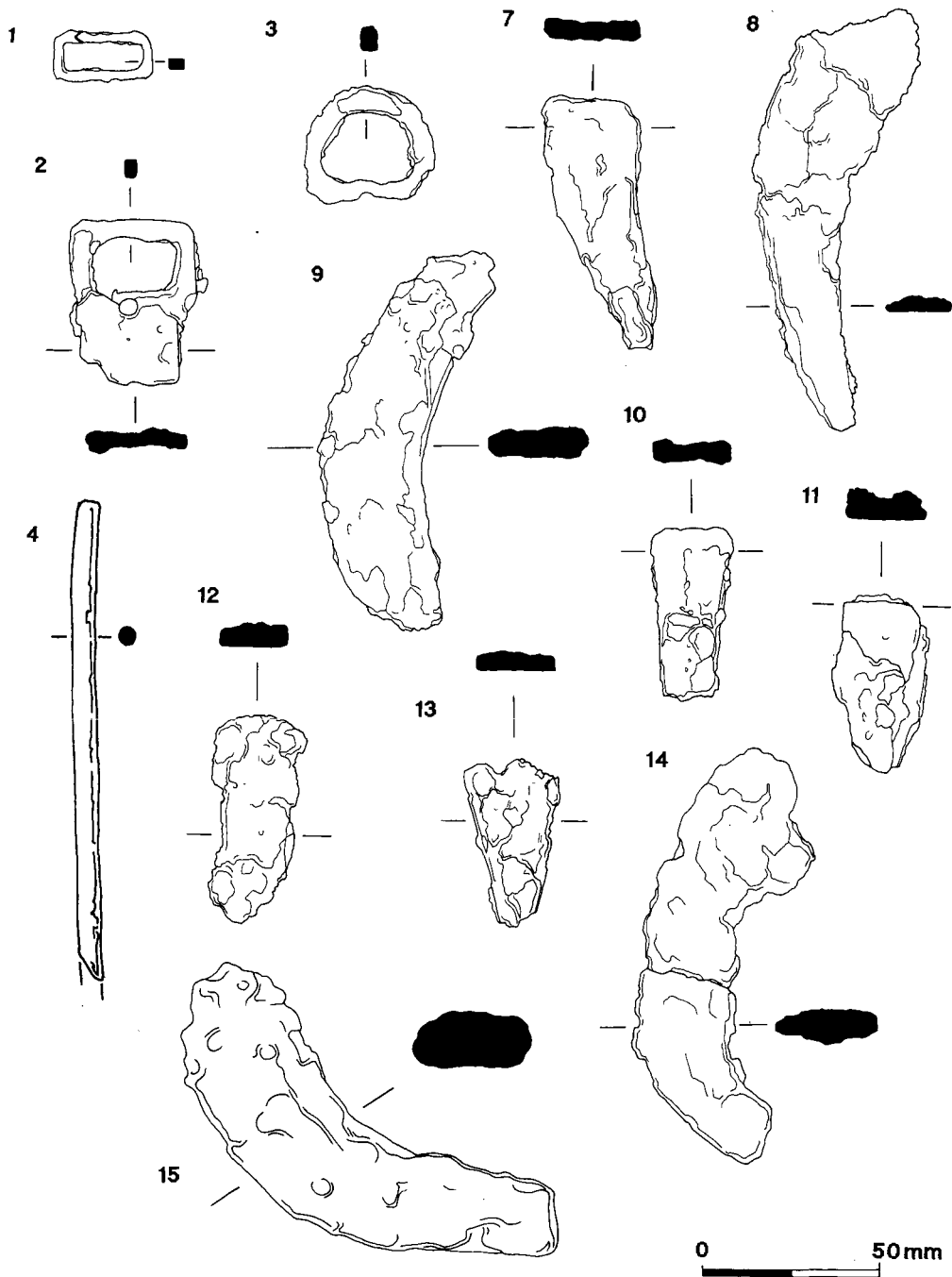
A total of nine horseshoes was recovered from the site. All are incomplete and in a very fragmentary and corroded condition. In only two of the examples (nos 131 & 247) are any nail holes visible. In both examples they are rectangular and countersunk. The edges of the horseshoes are so fragmentary that it is no longer possible to discern the original shape of the shoe. Number 15 does appear to have a plain outer edge, however, and nos 10, 12, 13 and 15 all have calkins or a thickening at the base of the heel. In addition, 16 horseshoe nails were recovered and can be classified into three types by head shape:

- A Fiddle-headed nail with semicircular head. The width of the head is no wider than that of the shank. 5 examples. Lengths range from 31 mm to 35 mm.
- B Nail with flat topped head with lobes or ears. The width and the thickness of the head are greater than the shank. 6 examples. Lengths range from 25 mm to 33 mm.
- C Head expands in both front and side views to a flat top. 4 examples. Lengths range from 35 mm to 42 mm.

It is not possible to say if any of the horseshoes are of the early types, with the distinctive wavy edge common in the 11th to 13th centuries. However, five examples of horseshoe nails have heads of the fiddle-key shape known to have been used with this type (Clark 1986). The later transitional type of horseshoe of mid 13th to early 14th-century date, with a straighter edge and rectangular countersunk nail holes, seems to be represented by no 15; this was recovered from the fill of a pit (314) which pre-dated Buildings C and D. Also six horseshoe nails with the lobed heads which were introduced with this style of horseshoe (Clark 1986) have been found. Only four examples of nails with expanded heads have been recovered. This type was used with horseshoes with tapering nail holes, a type introduced before the middle of the 14th century (*ibid*).

The 16 horseshoe nails were found only in Areas 2 and 4, with 12 coming from Area 2. One Type B nail, from a subsoil 'interface' deposit, and two Type A examples come from contexts earlier than Period II. Of the remaining horseshoe nails, three were found in post-occupation layers. Three came from Building A, two from Building D and seven from Building E. The recovery of several of these nails from the floor layers in all three buildings suggests that horses could have been brought into the buildings. No horseshoes were associated with the building floors, however, and no other finds suggest smithing was taking place in the buildings. Thus it is most likely that these are odd nails cast by horses while inside the buildings.

- 7 **Horseshoe.** Max. width of arm 25 mm. Fragment from the base of an arm. Context 51; Period IV; Area 2.
- 8 **Horseshoe.** Max. width 16 mm. Fragment of an arm. Context 53; Period IV; Area 3.
- 9 **Horseshoe.** Max. width 25 mm. Fragment of an arm. Context 67; Period IV; Area 3.
- 10 **Horseshoe.** Max. width 23 mm. Fragment from the end of an arm with calkin. Context 76; Period III; Area 2.
- 11 **Horseshoe.** Now missing. Context 83; Period IV; Area 2.
- 12 **Horseshoe.** Max. width 20 mm. Fragment from the end of an arm with calkin. Context 124; Period IV; Area 1.
- 13 **Horseshoe.** Max. width 26 mm. Fragment from the end of an arm with calkin. Part of one rectangular nail hole remains. Context 131; Period IV; Area 2.
- 14 **Horseshoe.** Now missing. Context 156; Subsoil interface; Area 4.



ILLUS 19 Iron objects: belt equipment, 1-3; heckle, 4; horseshoes, 7-15

- 15 **Horseshoe.** Max. width of arm 35 mm. Corroded fragment with plain edge. One rectangular countersunk nail hole is still visible. Calkin at end of arm, one arm missing. Context 247; Period I; Area 4.

Knives (illus 20)

Five knives were recovered. All have whittle tangs which would have been inserted into a handle of bone or wood and are of common medieval types. Number 20 is of a form uncommon before the 13th century; it was found in a floor layer in Building D. The only other knife associated with a building was no 17, which came from the fill of a drain in Building A.

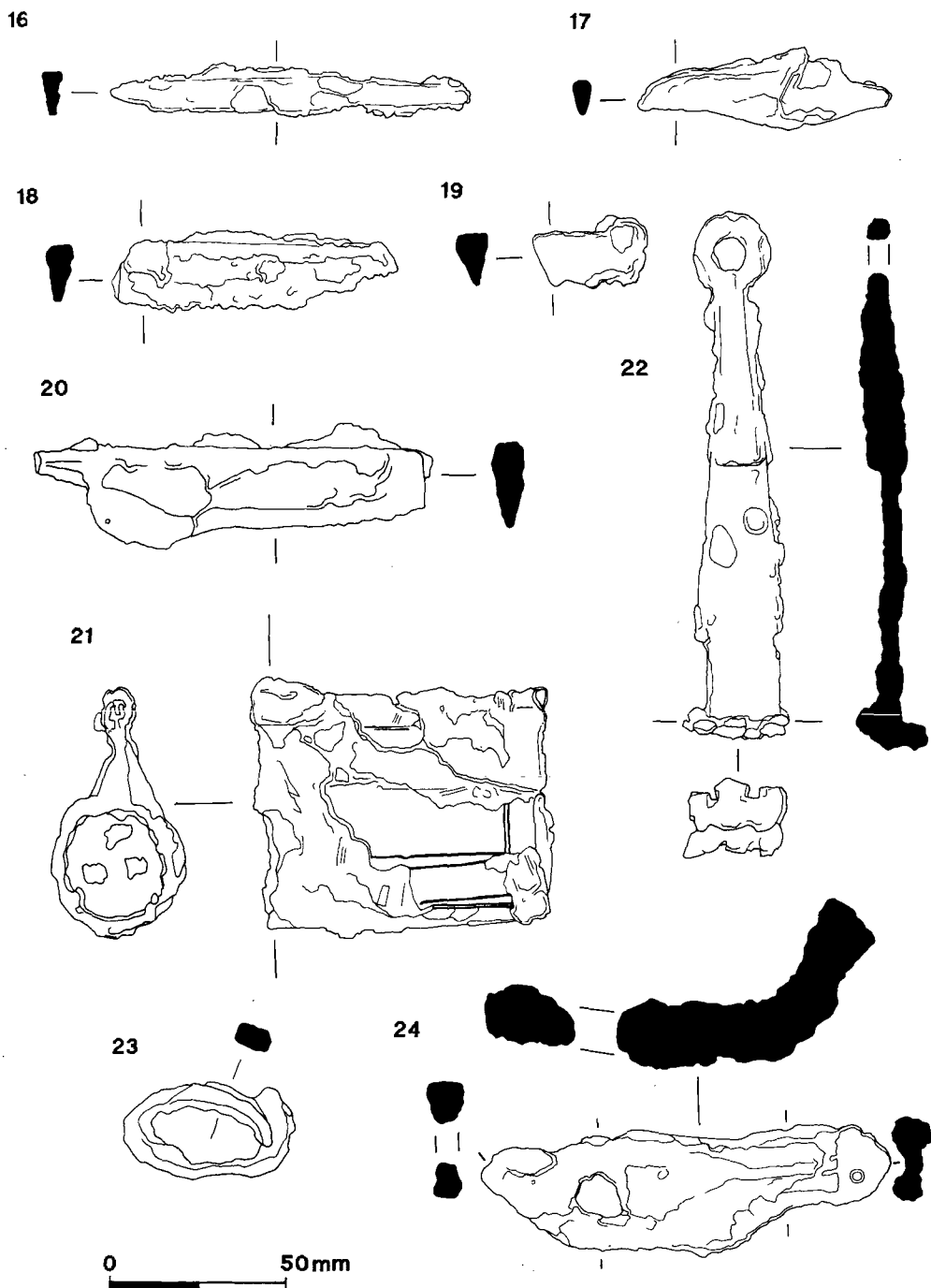
- 16 **Knife.** Length 98 mm; max. width of blade 12 mm. Whittle tang knife, both the blade and the back edge taper towards the tip. Tip missing. Context 75; subsoil interface; Area 3.
- 17 **Knife.** Length 70 mm; max. width of blade 16 mm. Whittle tang knife. The blade back and the cutting edge are both straight, the blade back angles down towards the tip. The tang is broken. Context 104; Period III; Area 2.
- 18 **Knife.** Length 79 mm. Whittle tang knife, The blade back and edge are straight. Blade tip and part of tang missing. Context 260; Period III; Area 3.
- 19 **Knife.** Length 36 mm. Small fragment from a blade. Context 269; Period I; Area 2.
- 20 **Knife.** Length 95 mm. Whittle tang knife. The blade back is straight, the blade edge slopes up to meet the back. Tip and part of tang missing. Context 276; Small Find BT; Period II; Area 4.

Locks and keys (illus 20)

Barrel padlocks like no 21 were most commonly used to lock chests, gates and doors. Number 21 consists of a cylindrical barrel with a number of decorative longitudinal rods. It would originally have had a U-shaped bolt but this and all the internal mechanism of spines and springs is now lost. A similar but smaller padlock has been found on excavations at Seacourt, Berkshire, and dates roughly from the mid 12th to 14th centuries; a further example of very similar proportions to no 21 was found at Eynesford Castle, Kent, in a context dated to the 12th century (Biddle 1962; Rigold & Fleming 1973). Number 21 was recovered from a floor layer in Building D.

The key (no 22) is of a type used with barrel padlocks. It has wards which are symmetrical and radiate from the base of the stem. It could have been inserted through a keyhole either on an end-plate or partly or completely on the underside of the barrel (Goodall 1980). It could therefore have been used on the same type of barrel padlock as no 21. The shank thickens part way along its length. This would have acted as a stop against the end-plate of the barrel padlock. The circular looped terminal would have acted both as a handle and for suspension. A similar key with looped terminal and thickened stem but with a broken bit was found in a possible 12th-century context at Wroughton Copse, Fyfield Down, Wiltshire (Goodall 1980). A further example, dated 1226–66, with similar six-ward bit, was found at Brandon Castle, Warwickshire (Chatwin 1955). Five examples of barrel padlock keys of this type were found on excavations at the High Street, Perth (Perth & Kinross Museum & Art Gallery: A0612, A6336a, A04–0331, A040368 & A040580). Number 22 was recovered from a boundary wall of the yard south of Building A and was probably from a lock used to secure a gate or door.

- 21 Barrel padlock. Length 76 mm; diameter of barrel 35 mm. Complete case with longitudinal rods. T-shaped keyhole cuts across end-plate and underside of case, now distorted. There are three



ILLUS 20 Iron objects: knives, 16-20; locks and keys, 21-2; structural ironwork, 23-4

rectangular holes in the other end-plate for the spines of a bolt which is now missing. A rectangular fin projects from along the length of the case surmounted by a tapering tube, which is now broken. A triangular plate is attached to the fin at the bolt housing end. Traces of copper-alloy plating. Context 159/276; Period II/III; Area 4.

- 22 **Barrel padlock key.** Length 145 mm. Shank with rectangular cross-section and circular looped terminal. The shank thins part way down its length. The symmetrical bit has six wards which radiate from the base of the shank. Context 37; Period III; Area 1.

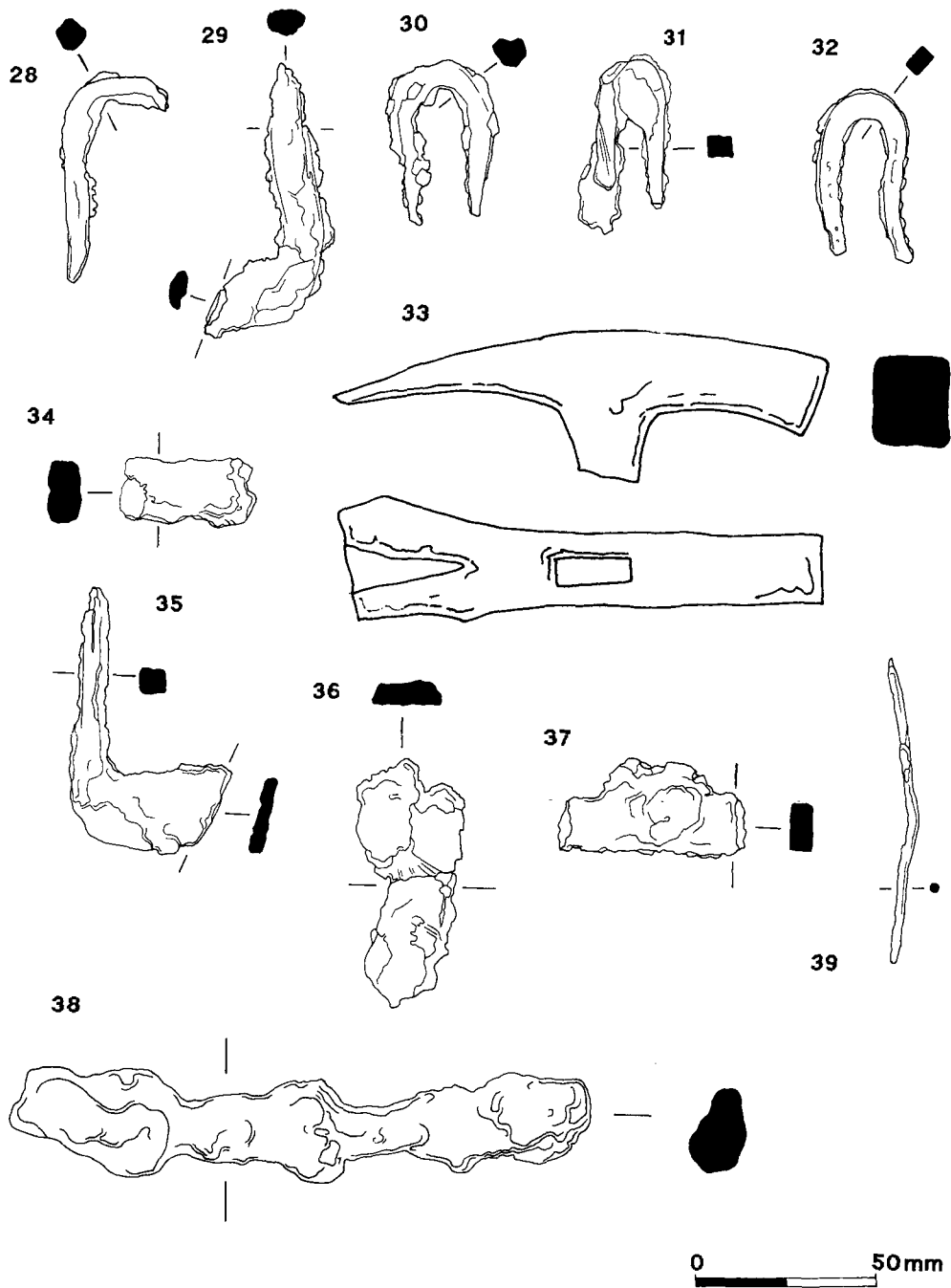
Structural ironwork and miscellaneous fittings (illus 20 & 21)

Collars such as no 23 were used to bind and strengthen wood. It has been formed from a simple strip of iron with crudely overlapping ends. It is probably now distorted, originally having been circular. A similar collar was found at Waltham Abbey, Essex (Huggins 1972).

Hasps such as no 24 were used to secure doors, gates or chests. They were used in conjunction with staples such as nos 28–32. Number 24 is of a curved figure-of-eight shape, forming two loops, one for attachment the other to fit over a staple. It could then be secured with a stick or a padlock. It was found in the yard to the north of Building C and was probably used to fasten a door or gate. Other examples of angled hasps have been found at Winchester (Goodall 1980). The fragmentary hinge pivot (No 25) would have been used to hinge either a door or window.

Numbers 26 and 27 are two hooks of unknown function which were recovered from the demolition layers over Building B. Numbers 28–32 are all U-shaped staples recovered from unstratified or disturbed contexts, except for no 31, which came from a post-pit related to early occupation in Area 3. U-shaped staples are very common finds on medieval sites and many examples have been found at Perth (eg Ford 1987a 137–8, nos 110–13).

- 23 **Collar.** Length 46 mm. Oval ring made from bending a flat strip. The rounded ends are overlapped. Context 1; topsoil.
- 24 **Hasp.** Length 110 mm; max. width 31 mm. Very corroded. Angled figure-of-eight shaped hasp. Part of hook remains at one end. Context 183; Period III; Area 4.
- 25 **Hinge pivot** (not illus). Length of shank 6 mm; length of arm 34 mm. Tapering shank with rectangular cross-section. The arm is fragmented. Unstratified.
- 26 **Hook** (not illus). Length 150 mm; diameter 6 mm. Rod with circular cross-section. Curved and pointed at one end. The other end is curved over and then twisted into a spiral. Context 53; Period IV; Area 3.
- 27 **Hook** (not illus). Length 145 mm; diameter 7 mm. Rod with circular cross-section. Curved and pointed at one end. The other end is curved over and then twisted into a spiral. Context 53; Period IV; Area 3.
- 28 **Staple.** Length 58 mm. U-shaped staple. Square cross-sectioned arms, one now broken. Context 19; Disturbed subsoil; Area 4.
- 29 **Staple.** Length 70 mm. U-shaped staple. Rectangular cross-sectioned arms, one now missing. Context 51; Period IV; Area 2
- 30 **Staple.** Length 46 mm. U-shaped staple. Rectangular cross-sectioned arms. Unstratified.
- 31 **Staple.** Length 42 mm. U-shaped staple. Square cross-sectioned arms. Context 265; Period III; Area 3.
- 32 **Staple.** Length 48 mm. U-shaped staple. Rectangular cross-sectioned arms. Context 78; Period IV; Area 2.



ILLUS 21 Iron objects: structural ironwork, 28-32; tools, 33-5; miscellaneous 36-9

Iron nails (not illus)

A total of 50 nails was recovered from stratified contexts. Most are in a very corroded condition and only 13 had complete heads which could be classified. Three distinct types were noted. They have been classified by head shape and the cross-section of the shank.

- A Circular, square or rectangular flat head with shank of square or rectangular cross-section. Nine examples.
- B Flat T-shaped head with shank of square or rectangular cross-section. Three examples.
- C Square or rectangular flat head formed by flaring square or rectangular cross-sectioned shank. One possible example.

Types A–C are all common woodworking nails often found on medieval sites (Ford & Walsh 1987). There are no significant concentrations of nails on the site and all appear to be simply random finds (though a large proportion of the nails comes from the Period IV silting layers and topsoil). A full catalogue of the nails is available in the archive of the project records.

Tools (illus 21)

Claw hammers are general-purpose tools used by many types of craftsmen and are impossible to attribute to a specific trade. The gently curving claws of no 33 would have aided leverage for extracting nails. The eye has been extended by straps to help prevent the handle coming loose. It was found in a layer which forms the surface on which Building C was erected. A claw hammer with straps was found at North Elmham Park, Norfolk, from a context broadly dated to c 1150–1600; another from Hen Blas, Clwyd, comes from a context of 13th to 14th-century date (Goodall 1980; Leech 1960).

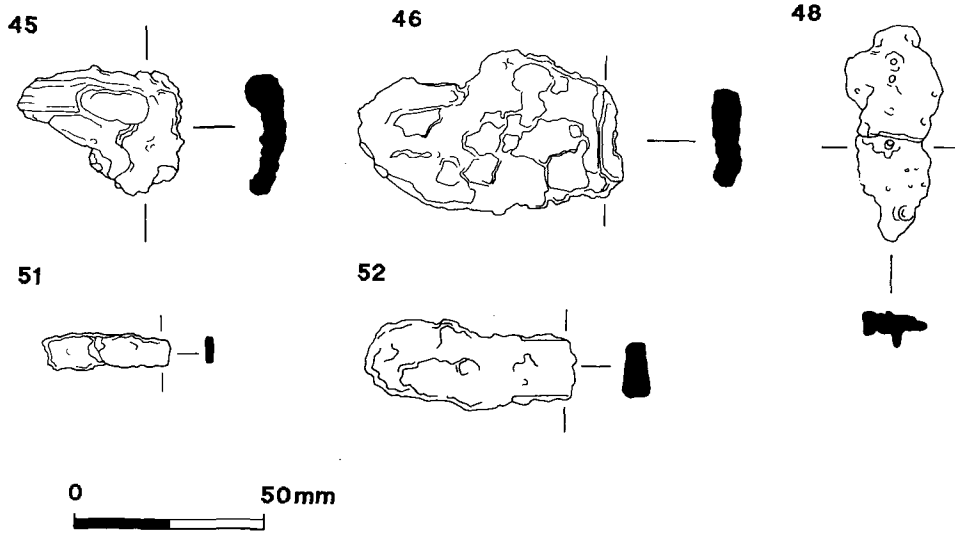
Number 34 is a small fragment of a rectangular cross-sectioned bar with a bevelled end. It is possibly the tip from a chisel. Number 35, a hook for cutting weeds, has a wedge-shaped blade similar to that on weedhooks from Woodperry and Copt Hay, Tetsworth, Oxfordshire (Wilson 1846, 122; Robinson 1973, 101, fig 23, no 8).

- 33 **Claw hammer.** Length 139 mm. Gently curving claws and squared head. There are strap like extensions below the rectangular eye, both of which are broken. Remains of wood on the inside of the straps. Context 248; Small Find BN; Period III; Area 4.
- 34 **Tool.** Length 32 mm, width 18 mm. Rectangular cross-section tapering to a flat point at one end, other end broken. Context 92; Period I; Area 4.
- 35 **Woodhook.** Length of blade 44 mm; width of blade 22 mm. Wedge-shaped blade with almost straight cutting edge and back. Plain fragmentary tang. Context 78; Period IV; Area 2.

Miscellaneous ironwork (illus 21 & 22)

The remaining miscellany of fragments of sheets, rods and bars was found throughout the site in a variety of contexts. Notably, no 39 is probably a pin; nos 49 and 50 may be remnants of awls; and no 53 is a domed head stud.

- 36 **Bar.** Length 68 mm. Fragment with rectangular cross-section. Context 233; Period II; Area 4.
- 37 **Bar.** Length 51 mm. Fragment with rectangular cross-section. Context 276; Period II; Area 4.
- 38 **Bar.** Length 163 mm. Rectangular cross-section. Context 277; Small Find BU; Period II; Area 4.



ILLUS 22 Iron objects: miscellaneous, 45–52

- 39 **Pin.** Length 85 mm; diameter 2 mm. Circular cross-section. Broken at both ends. Context 371; Period II; Area 2.
- 40 **Rod (not illus).** Length 138 mm; diameter 6 mm. Fragment with circular cross-section. Broken at both ends. Context 53; Period IV; Area 3.
- 41 **Rod (not illus).** Length 167 mm; diameter 5 mm. Fragment with circular cross-section. Broken at both ends. A second fragment is attached by having its end tightly wrapped around the rod Context 53; Period IV; Area 3.
- 42 **Rod (not illus).** Length 260 mm; diameter 7 mm. Fragment with circular cross-section. Bent and broken at both ends. Context 53; Period IV; Area 3.
- 43 **Rod (not illus).** Length 97 mm; diameter 6 mm. Fragment with circular cross-section. Broken at both ends. Context 223; Period II; Area 1.
- 44 **Sheet (not illus).** Length 88 mm; width 71 mm; thickness 8 mm. Fragment of cast sheet. curved at one end, broken at the other. At the curved end the sheet is flat, but dips into the middle towards the other end. Context 36; Period IV; Area 4.
- 45 **Sheet.** Length 45 mm. Fragment of curved sheet with slag attached at one end. Context 247; Period I; Area 4.
- 46 **Sheet.** Length 66 mm; thickness 8 mm. Fragment with rectangular cross-section. Context 276; Period II; Area 4.
- 47 **Sheet (not illus).** Length 47 mm. Fragment of sheet with wood attached. Context 183; Period III; Area 4.
- 48 **Sheet.** Length 55 mm; thickness 3 mm. Fragment of a sheet pierced by two iron rivets. Traces of wood on the upper surface. Context 421; Period III; Area 3.
- 49 **Spike (not illus).** Length 110 mm. Square cross-section tapering to one end. Bent. Context 19; disturbed subsoil; Area 4.

- 50 **Spike** (not illus). Length 106 mm. Circular cross-section, thickening towards one end which is very corroded. Context 37 Period III; Area 1.
- 51 **Strip**. Length 33 mm. Rectangular cross-section. Context 78; Period IV; Area 2.
- 52 **Strip**. Length 56 mm; width 15 mm. Rectangular cross-section. Context 153; Period II; Area 4.
- 53 **Stud** (not illus). Length 10 mm. Domed head, square cross-sectioned shank. Context 183; Period III; Area 4.

MISCELLANEOUS STONE OBJECTS

Barbara A Ford

with geological identifications by D T Moore

The objects described here (illus 23 & 24) were all made from types of sandstone consistent with the geology of the Southern Uplands and thus are likely to have come from areas local to the site.

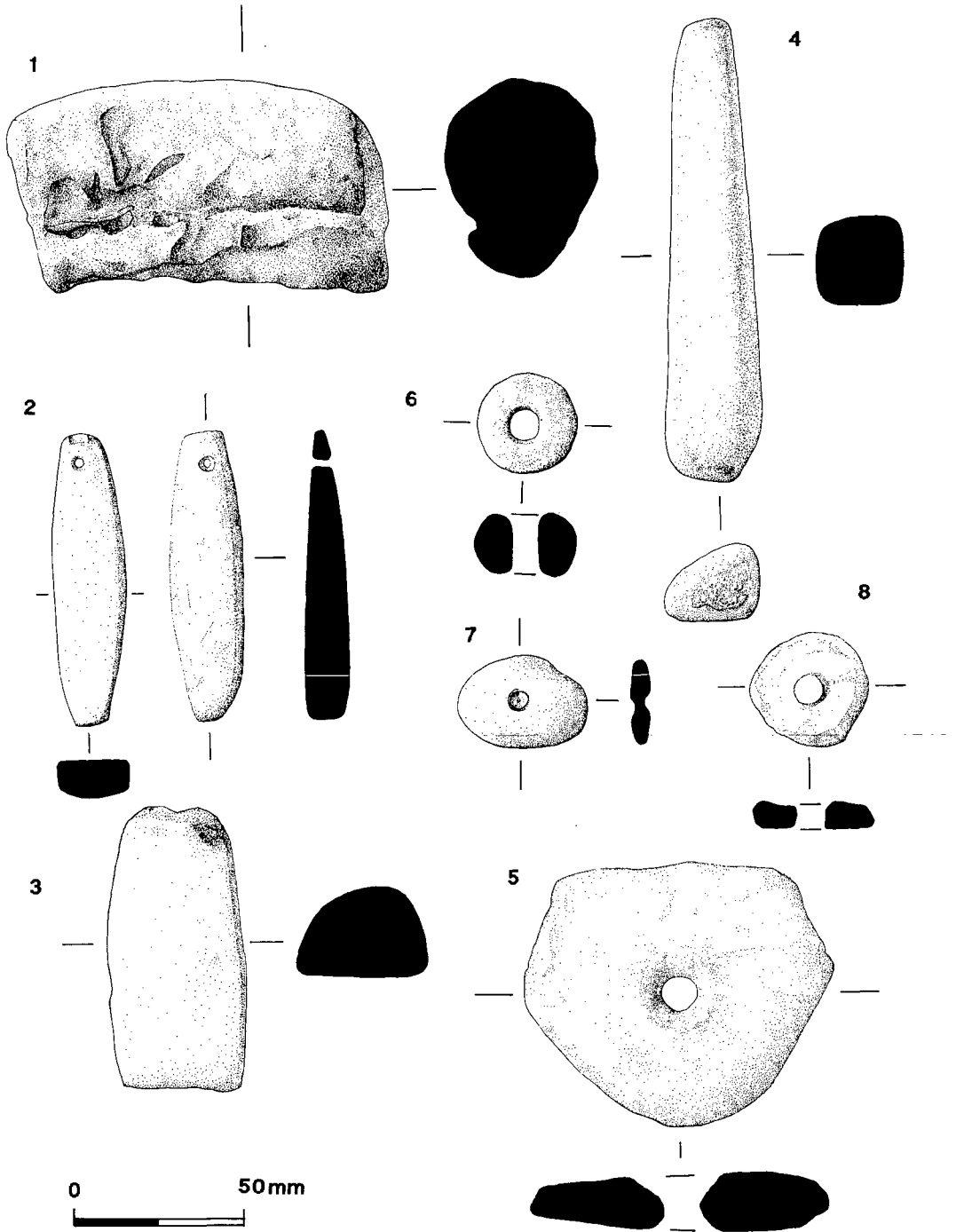
One hone (no 2) and two possible hones (nos 3–4) have been found. Number 2 is pierced at one end, probably to take a leather thong by which it could be suspended from a belt. Numbers 3 and 4 have both been worked, but neither shows any signs of use; no 2, however, shows signs of wear from the sharpening of blades on all four faces.

Number 5, a loom weight, was recovered from a floor layer within Building E. It is of triangular shape with rounded corners (two of which are broken off) and has been drilled from both sides to make a central perforation. One side is worn smooth and flat, probably due to friction during suspension. The recovery of this object suggests weaving on site using a warp weighted loom. A possible loom or net weight was also recovered from excavations in Aberdeen (Trewin 1982, 184).

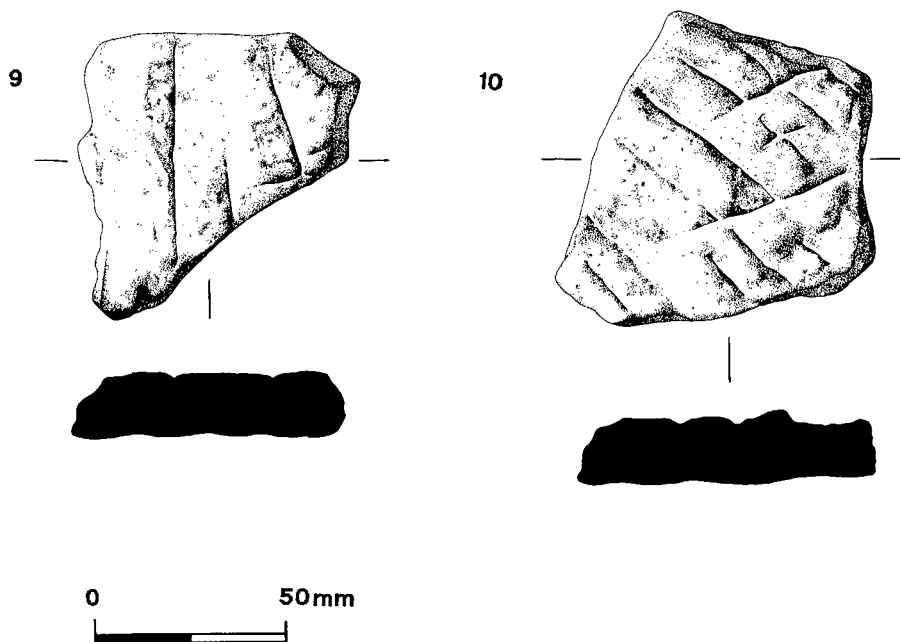
Numbers 6 and 8 are stone spindle whorls. Number 7 could possibly have been intended as a spindle whorl, but was evidently discarded because the drilled holes on either face were misaligned. A similar partly drilled spindle whorl was found at excavations at Thetford (Rogerson & Dallas 1984, 111, no 3). Number 8 was found in a possible hearth in Building D. A further spindle whorl of unbaked clay and a possible spindle whorl or weight of lead have also been found on the site (Ceramic objects, no 2; Lead, no 4). Number 6 is biconical in shape, a type commonly found on medieval sites; substantial groups have been recorded at King's Lynn and Northampton (Clarke & Carter 1977, 315; Oakley & Hall 1979, 286–9). Number 8 is a flat disc shape, a type more commonly made of baked clay than stone. Other examples like this have, however, been found at Threave Castle, Galloway; and in Perth (Good & Tabraham 1981, 126, no 193; Ford 1987d, 149, no 146).

Numbers 9 and 10 are two small flat pieces of worked sandstone. One surface of each has been dressed and bears tooling marks. The other surface of both pieces is rough, but has been scored with a number of lines. On no 10 the lines form a criss-cross pattern; on no 9 there are only a few crossed lines. These lines could simply be keying for mortar (although there is no sign of mortar on either fragment) or even idle doodlings; or perhaps these stones (especially no 9) were part of a nine men's morris gaming board.

- 1 **Architectural fragment**. Length 108 mm. Semicircular curved rib, broken at one end and along the back. Micaceous silty sandstone. Context 1; Small Find CE; topsoil.
- 2 **Hone**. Length 86 mm; max width 22 mm; max thickness 13 mm. Pierced for suspension. Signs of wear on all four faces. Micaceous silty sandstone. Context 32; Small Find BE; Period IV; Area 4.



ILLUS 23 Stone objects 1-8



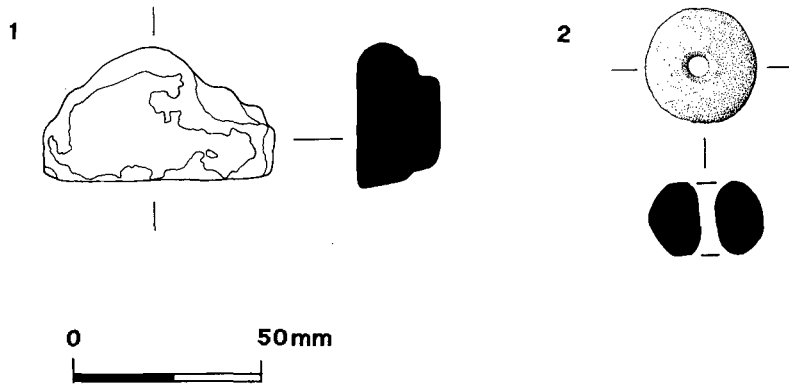
ILLUS 24 Stone objects 9 & 10

- 3 **?Hone.** Length 83 mm; max width 41 mm; max thickness 28 mm. One face has been flattened and smoothed, the other faces are rounded. Broken at both ends. Greywacke sandstone. Context 75; Small Find CF; Subsoil Interface; Area 3.
- 4 **?Hone.** Length 135 mm; max width 30 mm; max thickness 28 mm. All the faces are smoothed and polished. Broken at one end. Ferruginous sandstone. Context 132; Small Find BM; Period III; Area 2.
- 5 **Loom weight.** Length 93 mm; thickness 20 mm. Triangular shaped, with rounded corners. Two of the corners are broken. Pierced at the centre with a hole partly drilled from both sides. Silty sandstone. Context 126; Small Find BI; Period II?; Area 2.
- 6 **Spindle whorl.** Diameter 30 mm. Biconical. Diameter of central hole 10 mm. Broken around one end of hole. Fine grained sandstone. Context 51; Small Find AP; Period IV; Area 2.
- 7 **?Spindle whorl.** Max diameter 34 mm. Partly drilled in each face. Holes unaligned. Micaceous silty sandstone. Context 110; Small Find CD; Period IV; Area 2.
- 8 **Spindle whorl.** Diameter 34 mm. Disc-shaped. Diameter of central hole 9 mm. Micaceous sandstone. Context 140; Small Find AX; Period I; Area 4.
- 9 **Worked stone.** Length 87 mm; thickness 19 mm. Series of scored lines on face. Micaceous silty sandstone. Context 33; Small Find AK; Period IV; Area 4.
- 10 **Worked stone.** Length 96 mm; thickness 20 mm. Series of scored lines on one face. Micaceous silty sandstone. Context 159?; Small Find BS; Period I; Area 3.

CERAMIC OBJECTS

Barbara A Ford

Excluding pottery, only two ceramic objects were recovered (illus 25). Number 1, from topsoil, is a medieval floor tile fragment, coated with a green glaze. Other green-glaze floor tiles recovered



ILLUS 25 Ceramic objects 1 & 2

from Scottish sites are mainly associated with religious houses such as Friarscroft in Dunbar, St Andrews Cathedral, and the Blackfriars Monastery in Perth (Eames 1983; di Folco 1985; D Hall, pers comm).

Number 2 is a spindle whorl, probably made from unbaked clay. It is very soft and light. A similar spindle whorl in (possibly) unbaked clay was recovered at Northampton (Oakley & Hall 1979, 288, no 15). It is believed that these lightweight whorls were used for spinning fine threads, whereas the heavier whorls, such as nos 6–8 in stone (above), were used for spinning stronger yarns (Macgregor 1974, 88–9).

- 1 **Floor tile.** Thickness 24 mm. Abraded fragment in hard sandy oxidized fabric with brick red core and orange margins and surfaces. The two edges have been cut with a downward bevel and smoothed. The base is fairly smooth and shows traces of sand on which the tile was formed or stacked before firing. The upper surface and one edge have been coated with a glaze varying from olive to dark green. Context 1; Small Find CH; topsoil.
- 2 **Spindle whorl.** Diameter 30 mm. Biconical. Diameter of hole 10 mm. Probably made from unbaked clay. Context 32; Small Find AW; Period IV; Area 4.

MILLING AND GRINDING STONES

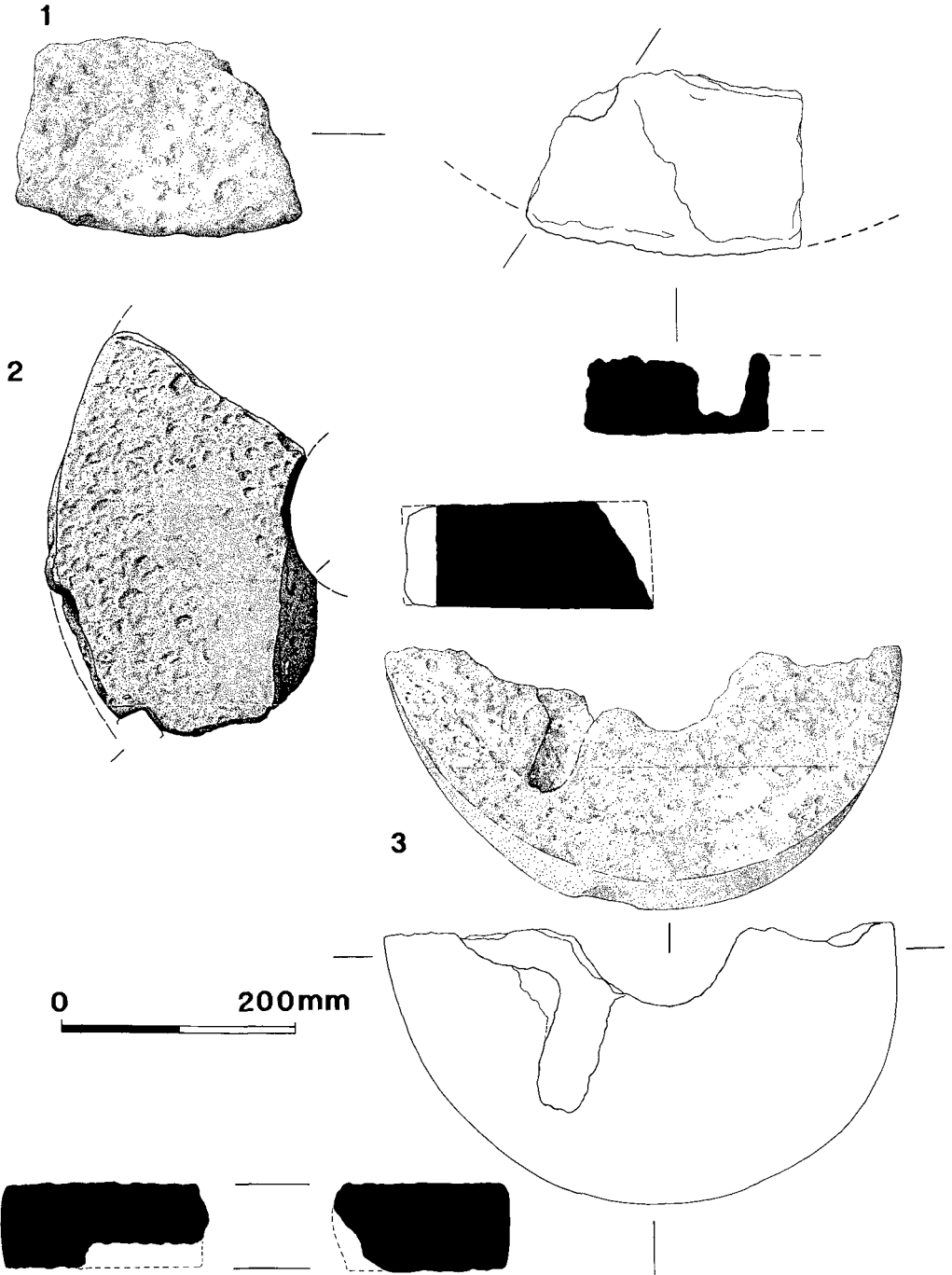
Adam Welfare

Four millstones and a grindstone were recovered (illus 26 & 27). There seems little doubt that each of these was recovered from a context in which it had been reused after breakage. In the case of the millstones (nos 1–4), the preponderance of upper-stone fragments is typical of sites with such assemblages. They were probably made for use in some kind of geared mill, the only possible exception being the smallest fragment (no 4) which, perhaps by virtue of its size alone, lacks the characteristics which would confirm this form of use. However, both its overall treatment and the raw material used suggest that it may have formed a pair with the fragmentary upper stone recovered from a spoil tip (no 1). Two of the millstones exhibit remnants of a subrectangular, vertical socket (no 1) or perforation (no 2) in the upper surface. Neither shows obvious signs of wear, and while it is possible that these features were intended for use in balancing the stones, it seems more likely that they once held metal fittings which allowed the stones to be raised or lowered for servicing. Poor maintenance during running was almost certainly responsible for the development of the concentric striae etched into the face of the most complete millstones (no 3).

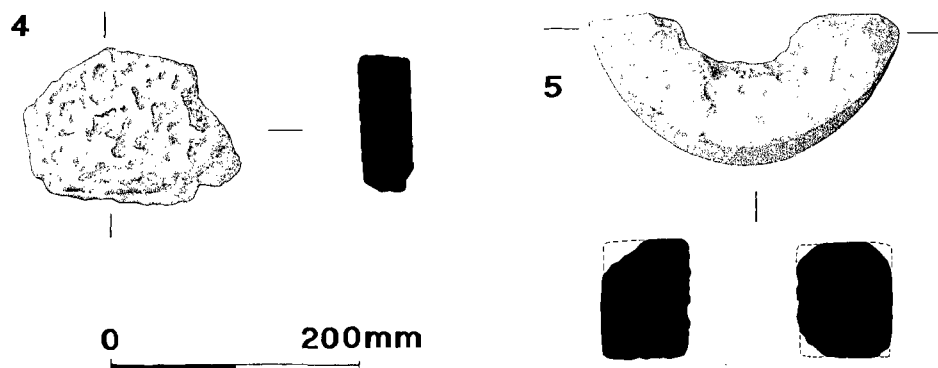
The consistency of the ground circumference about the circuit of this upper-stone is also of some interest, for it contrasts sharply with the more random treatment of its upper surface. This difference was probably functional rather than aesthetic and it may be that the stone was so fashioned to fit snugly within a close-fitting wooden box or tray. One of the millstones showed signs of secondary wear (no 2), consistent with its use as a paving stone in Building D. The smoothing on the upper surface lacks the wavy irregularities, the variability in the incidence and development of the facets, and the incidence of grooving that are typical of reuse as a whetstone. All of these characteristics are found in some measure on the surfaces of the broken grindstone (no 5), though the condition of the latter indicates that it had long use and a corresponding degree of wear in its original role also.

The fact that only millstones (rather than quernstones) are found within the assemblage suggests that an edict forbidding the use of domestic handmills may have been in force during their floruit.

- 1 Single fragment of an upper millstone. Estimated diameter c 680 mm; thickness at the circumference 60 mm. The upper surface has been crudely dressed to shape with pickmarks and there are the remnants of a sub-rectangular socket distanced 90 mm from the circumference; this originally measured at least 40 mm. across and 50 mm deep. The vertical sides of the stone exhibit dressing similar to that upon the upper surface. The depressed concavo-convex face has been sharpened with pocking and the greatest degree of wear has taken place around the skirt. The stone is fashioned from a medium-grained, dull, orange-brown sandstone, blackened upon the face by contact with burnt material. The fragment was retrieved from a spoil-tip during the excavations of 1986; Small Find BQ; unstratified.
- 2 Single fragment of an upper millstone. Estimated diameter exceeding 540 mm; thickness 92 mm. The gently convex upper surface is neatly dressed with pocking, but one sector has been rubbed smooth by some secondary use. No trace of the original circumference of the stone survives. A remnant sub-rectangular perforation, more than 30 mm by 20 mm and 70 mm deep, is found within a fracture at the periphery of the fragment; while part of the arc of a circular eye with an estimated diameter of c 160 mm and a thickness of 90 mm is intact at the centre of the stone. The depressed concavo-convex face is sharpened with pocking and the wear appears evenly distributed. The stone is fashioned from a medium-grained, pale, buff sandstone. The fragment was discovered within the fill of a hearth/midden pit in Building D attributed to Period II (Phase VI); Small Find AM, Context 34, Area 4.
- 3 Single fragment of an upper millstone. Diameter 420 mm; thickness at the circumference 73 mm. The upper surface has been partly dressed to shape with a pick, while part of the arc of a circular eye, with an estimated diameter of c 130 mm and a thickness of 75 mm, is found at the centre of the stone. The stone was plainly narrower at the top than the bottom. The circumference is slightly convex and has been evenly ground to a very smooth finish. Three remnant limbs of a massive X-shaped rynd-chase are cut into the depressed, gently convex face, which has been sharpened with pocking. The best surviving arm measures 130 mm long, 44 mm wide and 40 mm deep; but overall, the chase spanned 340 mm and c 220 mm in breadth. No trace of lead lies within it. Although the maximum wear to the face has occurred about the skirt, deep concentric striations linking individual pockmarks are found in the breast. The stone is fashioned from a dense, very fine grained, pale, buff sandstone. The fragment was discovered reused in a hearth in Building E, attributed to Period II (Phase VI); Small Find BY, Context 358, Area 2.
- 4 Single fragment of a lower millstone, measuring 190 mm by 110 mm overall and up to 46 mm thick. The elevated, convexo-concave face has been sharpened with pocking and the wear appears to be evenly distributed. No traces of either the original circumference or the lower surface survives. The stone is fashioned from a medium-grained, dull, orange-brown sandstone, which has been blackened



ILLUS 26 Millstones 1, 2 & 3



ILLUS 27 Millstones/Grindstones 4 & 5

upon the face by contact with burnt material. The fragment was discovered within the wall tumble of Building A in Period III; Small Find BR, Context 102, Area 2.

- 5 Single fragment of a rotary grindstone possessing a diameter of 260 mm and a thickness at the circumference that varies between 94 mm and 90 mm. Part of the arc of a slanting, circular eye with an estimated diameter of 90 mm and a thickness of 90 mm. occurs at the centre of the stone. The sides appear to have originally been dressed with pockmarks and subsequently smoothed in part; while in places there are zones that bear deep grooves. The grinding face has become smooth through use, although the pattern of wear has been uneven: the face is more worn on one side than on the other and most worn in the centre of its track, where concentric striations can be detected. In addition, despite the peripheries of the face remaining sharp, their overall circuits are irregular. The stone is fashioned from a very fine grained, pale, buff sandstone. The fragment was retrieved from the wall tumble associated with the last phase of occupation of Building B in Period IV; Small Find AQ, Context 67, Area 3.

ARCHITECTURAL FRAGMENTS

Piers Dixon

Two broken pieces of ashlar were recovered from the site (not illus), both of the yellow sandstone commonly used for building in the Borders. Their broken state suggests that they were reused from a demolished building in the Kelso area.

- 1 Large fragment of dressed sandstone with a slight curve on one face, finished on four sides including one end. Length 440 mm long; width 160 mm, depth 155 mm. Context 358; Small Find BZ; Area 2; Period II.
- 2 Fragment of dressed sandstone, finished on three faces, two sides and one end. length 200 mm, width 145 mm, thickness 140 mm. Context 57; Small Find AV; Area 2; Period IV.

FLAKED LITHIC ARTEFACTS

Caroline Wickham-Jones

A large assemblage of flaked lithic artefacts was recovered (not illus). These were all from secondary or 'redeposited' contexts. Nonetheless, it was possible to derive an amount of technical and other detail.

The assemblage appears to be of broadly Mesolithic date. A variety of local materials was used, including flint, chert and chalcedony. Like many other Tweed Valley assemblages, it contained both broad and narrow blade microliths. This has important implications as it suggests cultural connections with Mesolithic sites to the south, in England. There was no direct dating evidence, but the presence of broad blade artefacts tentatively indicates a *terminus ante quem* in the late seventh millennium.

The assemblage is of great interest in view of the large number of other lithic scatters in the vicinity. Over 100 sites have been recorded from the Tweed Valley to date and, although there has been little recent analysis of these assemblages, many have Mesolithic material and they are generally recognized as being important to the study of early settlement in Scotland. A more detailed discussion of this assemblage has been submitted for publication in *Mesolithic Miscellany*.

TABLE 5

Lithic assemblage

General typological breakdown

pebbles	cores	chunks	debitage flakes	regular flakes	blades	retouched pieces	total
14	96	554	107	1242	147	118	2278
<i>Retouched pieces</i>							
microlith	microburin	scalene triangle	crescent	rod	obliquely blunted	lamelle a cran	misc.
28	4	2	1	1	4	2	12
scraper	edge retouched	awl	burin	notched	broken	misc.	
44	15	6	2	1	17	5	

POTTERY

Lucy Bown

The Springwood Park pottery assemblage comprises 5633 sherds dividing into 14 fabric types and a total of at least 294 vessels (vessel counts are estimated on rim sherds only). Of this assemblage, 99% is medieval, 0.4% imported and 0.1% post-medieval. The average sherd size is 30 mm and surface abrasion is not particularly severe. The small number of cross-joins between sherds from different contexts and the low amount of intrusive or residual pottery indicates that the stratigraphy of the site was not deeply disturbed and that little secondary deposition has occurred.

CATALOGUE

Please note that items nos 62, 63 and 64 in the following catalogue occur out of sequence, as these were late additions to the catalogue (under Fabrics 5, 7 & 9).

Fabric 1: Scottish East Coast White Gritty Ware (illus 28–30, 32)

This local medieval wheel-thrown pottery is at present encompassed by this blanket term (for further discussion see Crowdy 1986). Colour is predominantly very pale brown (10YR 8/3) or pinkish white (5YR 8/2) throughout, but with a smaller percentage (6%) of sherds in an iron rich light red fabric (2.5YR 6/8) with reduced core (2.5YR 4/0).

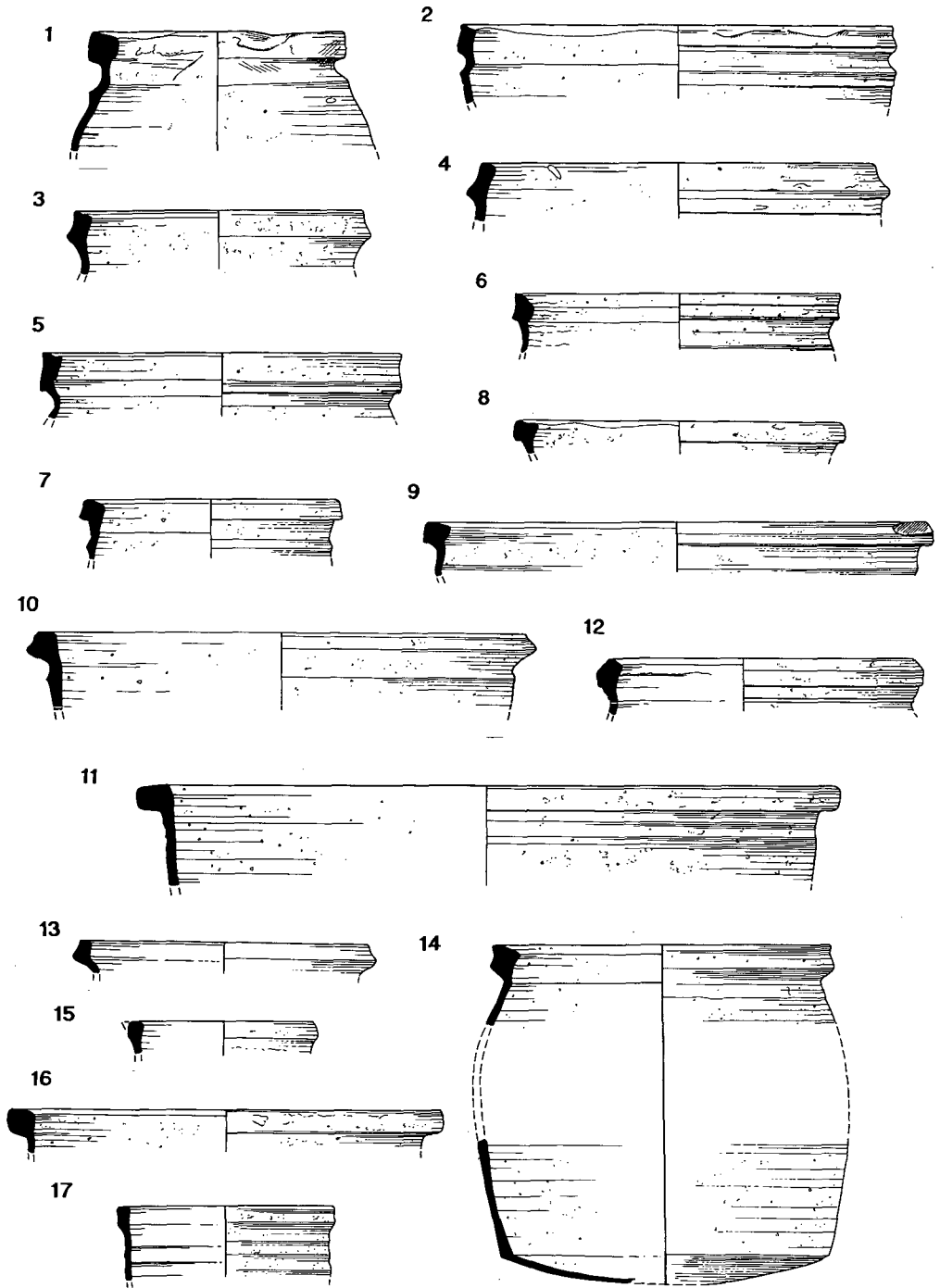
There are an estimated 265 vessels in this fabric, comprising 195 large cooking pots/jars, 24 smaller cooking pots/jars, 44 jugs and two ladles. Nearly all the forms are typical and local parallels occur at Eyemouth (Crowdy 1986), Kelso Abbey (Cox *et al* 1984) and Lindisfarne (Bown 1985). A summary of sherd count by period (ie Periods I–IV) shows that this fabric is dominant in every phase of the site. A late 12th- to 14th-century date is consistent with its occurrence on other sites in the region. There would appear to be no difference in date between the rim form types, suggesting that all forms are contemporary. This parity of forms could either represent a relatively short period of occupation on the site or a conservative pottery industry.

Of the few large cooking pots/jars which could be reconstructed, both rounded and cylindrical forms are present, with 72% of base sherds sagging and 28% flat. Bases are frequently knife-trimmed on the exterior edge. These are quite finely thrown pots with wall thicknesses averaging 5 mm and an average sherd weight of 6 g. Rims clearly divide into inturned clubbed (49%), everted (13%) and rolled/folded (38%) forms. The clubbed rims frequently have a cordon on the neck and occasionally a flange (eg illus 29, no 19). Ten examples have thumb decoration (eg illus 28, nos 1 & 2). All rims range from 110 mm to 260 mm, regardless of form. One sagging base, presumed to be from a cooking pot (though not sooted on the exterior) has holes drilled through it. The smaller cooking pots are of finer proportions and the rounded vessels, therefore, look more squat. Rims are either inturned or everted and range in size from 100 mm to 140 mm, with one exception of 200 mm. All the cooking pots are unglazed, but must have been fired in a kiln which was also for glazed vessels, as there are occasional splashes and spots of lead glaze on the vessels. Occasional sherds have trickles of white slip on the exterior or a white bloom, both related to firing conditions.

Two ladles have everted rims with a pinched spout which was probably at right angles to a pulled rod handle (illus 30, no 40). Rims range from 80 mm to 120 mm.

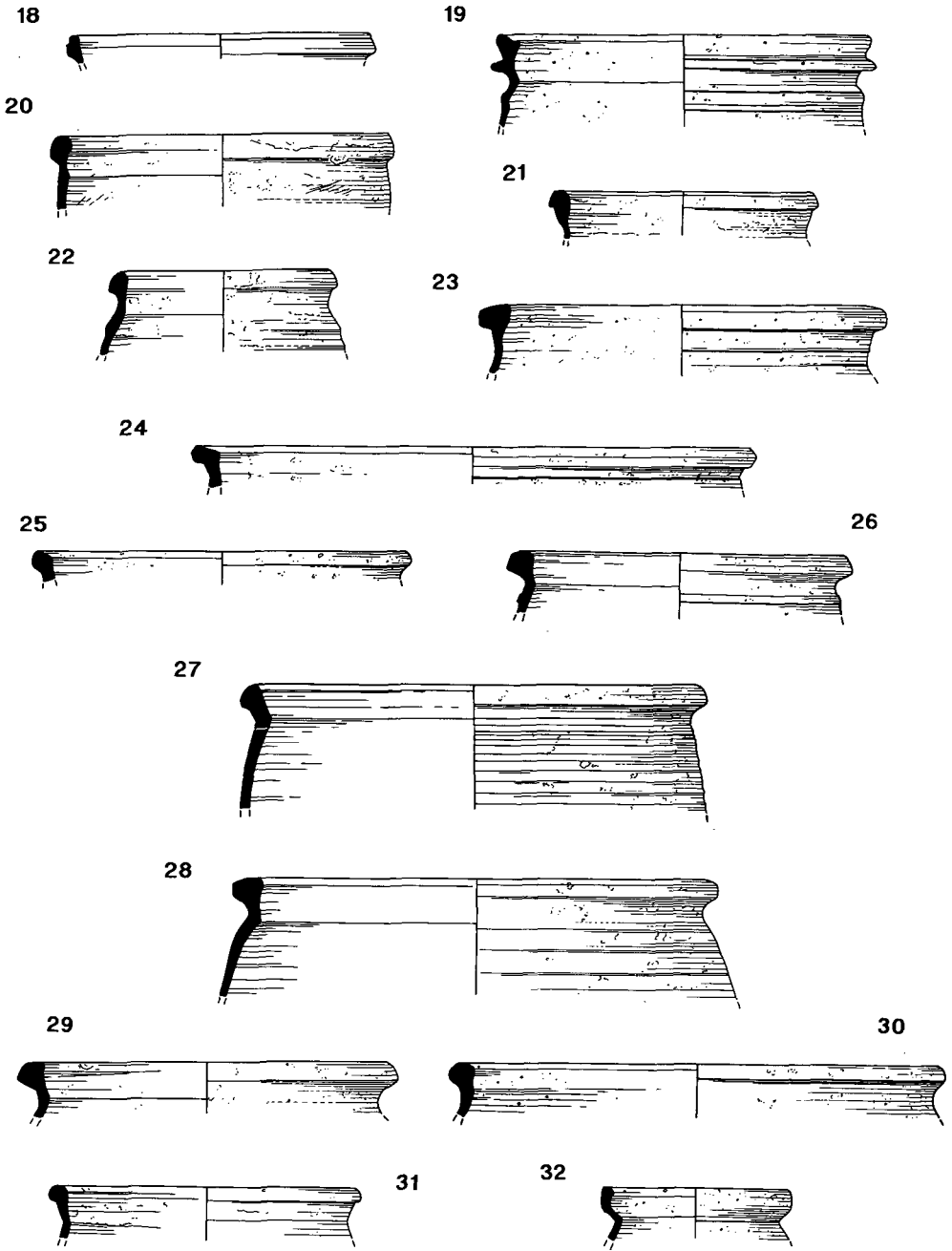
The 44 jugs divide into four rim types ranging from 90 to 140 mm: plain (7%), clubbed (57%), rolled (34%) and everted (2%). A cordon on the neck is most frequently associated with the clubbed rims, but also occurs in association with everted and rolled rims. Two clubbed rims have lid seatings on the top of the rim. Bases sherds are sagging and occasionally thumb decorated. Spouts are pinched with the exception of one tubular example and handles are either strap (87%) or rod (12%). Most vessels have zones of yellow or green lead glaze on the exterior lower half of the vessel extending up to the shoulder zone, where it is more splashed. Decoration is quite common and takes the form of rouletted square notches (illus 32, No 49), incised lines, applied iron-stained vertical strips, applied stamped and rouletted vertical strips, applied pinched pellets and scales, and small cordons on the shoulder.

- 1 Rounded cooking pot with cordoned neck and square clubbed rim (170 mm) which is thumb decorated on the upper and external edge. The thickly slurried surface has retained the potter's finger impressions, particularly in the thumb decorated indentations. Vessel 1. Context 76, Period III, Area 2. Parallel examples are found at Lindisfarne (Bown 1985, illus 20) and Kelso Abbey (Cox *et al* 1984, illus 33).
- 2 Cooking pot with square clubbed rim (220 mm), thumb decorated on the outer edge. Cordon on the neck. Slightly sooted on the external surface. Vessel 257. Context 78, Period IV, Area 2.
- 3 Cooking pot/storage jar with inturned clubbed rim (120 mm) and possible lid seating on the top edge. Probable cordon on the neck. Vessel 12. Context 39, Period III, Area 1.
- 4 Cooking pot/storage jar with inturned clubbed rim (220 mm) almost pulled into a flange on the lower external edge. Cordoned neck. Vessel 14. Context 76, Period III, Area 2.
- 5 Cooking pot/storage jar with large inturned clubbed rim (220 mm). Undercut outer rim edge. Also grooved with a possible lid seating on the upper edge. Vessel 16. Context 302, Period I, Area 2.



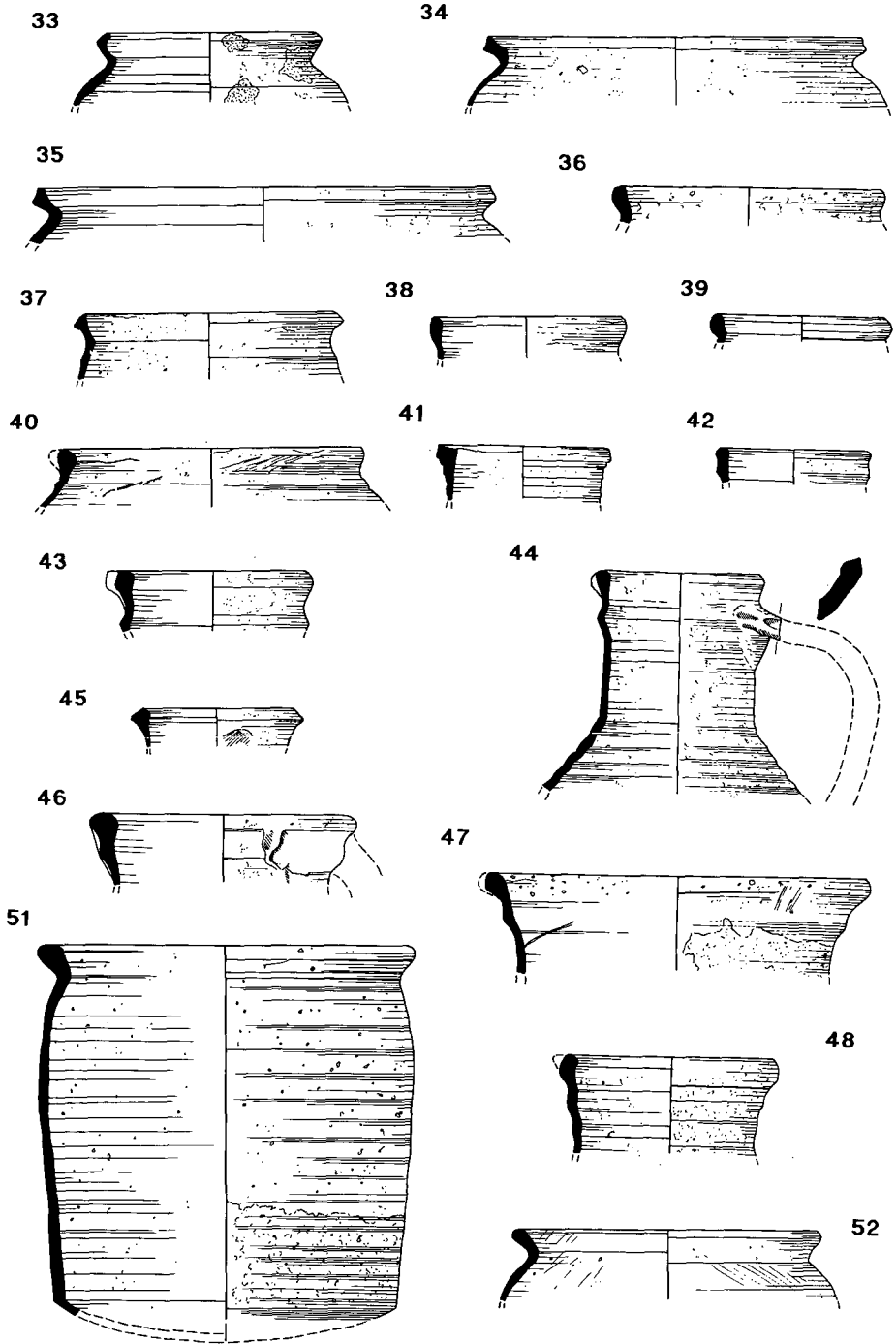
ILLUS 28 Pottery 1-17 (scale 1:4)

- 6 Finely thrown rounded cooking pot/storage jar with clubbed rim (180 mm) and small cordon at the base of the neck. Internal flange at the base of the neck. Vessel 20. Context 44 and 153, Period III, Area 4. Paralleled from Lindisfarne (Bown 1985, illus 10).
- 7 Fine cylindrical cooking pot with inturned clubbed rim (140 mm), undercut on the outer edge with a cordon on the neck. Vessel 32. Contexts 247, 44, 32 & 136, Periods I-IV, Area 4. Paralleled from Lindisfarne (Bown 1985, illus 13 & 14).
- 8 Cooking pot with simple clubbed rim (180 mm). Sooted on the exterior. Vessel 37. Context 50, Period IV, Area 2. Paralleled from Lindisfarne (Bown 1985, illus 13).
- 9 Rounded cooking pot with inturned square clubbed rim (280 mm), thumbed on the outer edge with finger imprints following the indentations. Small cordon on the neck and internal flange at the top of the rim. Vessel 59. Context 132, Period III, Area 2. Similar to example from Eyemouth (Crowdy 1986, illus 8).
- 10 Cylindrical cooking pot with clubbed rim, tooled on the outer edge (280 mm). Slight cordon on the shoulder. Sooted on the exterior surface. Vessel 62. Context 321, Period IV, Area 2. Similar to example from Kelso Abbey (Cox *et al* 1984, illus 21, no 57).
- 11 Large rounded cooking pot with clubbed rim (400 mm). Sooted on the exterior surface. Vessel 64. Context 78, Period IV, Area 2. Similar to example from Eyemouth (Crowdy 1986, illus 32).
- 12 Rounded cooking pot with inturned clubbed rim (200 mm) and cordoned neck. Vessel 65. Context 231, Period II, Area 2.
- 13 Cooking pot/bowl with inturned clubbed rim (140 mm). Vessel 67. Context 53, Period IV, Area 3.
- 14 Near complete profile of a rounded cooking pot with inturned clubbed rim (200 mm) and sagging base. The base sherds are glazed on the interior with splashed yellow lead glaze, and while some sherds are sooted only on the exterior others are sooted on both surfaces. Vessel 70. Contexts 161 and 5, Periods III and IV, Areas 3 & 4. Similar to one from Eyemouth (Crowdy 1986, illus 16).
- 15 Small cooking pot/storage jar with simple clubbed rim (120 mm), and pinched spout. Vessel 92. Context 260, Period III, Area 3.
- 16 Cooking pot/storage jar with large clubbed rim (260 mm). Sooted on part of the exterior. Vessel 83. Context 317, Period III, Area 2.
- 17 Cylindrical cooking pot with small simple clubbed rim (120 mm). Sooted on the exterior surface. Vessel 273. Context 76, Period III, Area 2.
- 18 Fine cooking pot with inturned clubbed rim (180 mm). Pinker fabric type. Vessel 190. Context 32, Period IV, Area 4.
- 19 Finely thrown cooking pot with bifid rim (220 mm) and slight cordon on the neck. Vessel 17. Context 1 (Topsoil). Paralleled by example from Lindisfarne (Bown 1985, illus 11).
- 20 Cylindrical cooking pot with rolled rim and possible lid seating (180 mm). Vessel 76. Context 78, Period IV, Area 2.
- 21 Rounded cooking pot/jar with small rolled rim (140 mm). Vessel 80. Context 134, Period IV, Area 2.
- 22 Rounded cooking pot with small rolled rim (110 mm). Sooted on the exterior. Vessel 81. Context 39, Phase III, Area 1.
- 23 Cooking pot/storage jar with rolled rim (220 mm) and slight cordon on the neck. Vessel 90. Context 50, Period IV, Area 2.
- 24 Cooking pot/jar with rolled rim (310 mm). Vessel 101. Context 53, Period IV, Area 3.



ILLUS 29 Pottery 18-32 (scale 1:4)

- 25 Cooking pot/jar with small everted clubbed rim (200 mm). Vessel 143. Context 151, Period II, Area 4.
- 26 Cylindrical cooking pot/jar with everted clubbed rim (180 mm). Vessel 149. Context 54, Period IV, Area 3. Similar to Kelso Abbey example (Cox *et al* 1984 illus 14, no 6).
- 27 Cooking pot/jar with everted rolled rim (240 mm) and rilled body surface. Vessel 131. Context 125, Period IV, Area 2. Similar to Eyemouth example (Crowdy 1986, illus 34).
- 28 Rounded cooking pot with everted rolled rim (270 mm). Vessel 133. Context 114 and 125, Subsoil Interface and Period IV, Area 2 and 4. Similar to Eyemouth example (Crowdy 1986, illus 34).
- 29 Rounded cooking pot/jar with everted rolled rim (210 mm). Vessel 137. Context 51, Period IV, Area 2. Similar to Kelso Abbey examples (Cox *et al* 1984, illus 15, n15; illus 35).
- 30 Rounded cooking pot/jar with everted rolled rim (270 mm). Vessel 148. Context 70 and 78, Periods II and IV, Area 1 and 2. Similar to Eyemouth example (Crowdy 1986, illus 43).
- 31 Cooking pot/jar with everted rolled rim (160 mm). Vessel 155. Context 106, Period I, Area 1.
- 32 Finely thrown cooking pot with inturned rim (100 mm) and possible lid seating on the interior base of the neck. Vessel 194. Context 1 (topsoil).
- 33 Finely thrown cooking pot with inturned rim (120 mm) and internal lid seating on the neck. Vessel 195. Context 25, Period III, Area 4.
- 34 Finely thrown rounded cooking pot with everted rim (200 mm). Vessel 197. Contexts 29 and 128, Period III, Area 3. Pinker fabric type.
- 35 Rounded cooking pot with everted rim (220 mm). Vessel 199. Context 183, Period III, Area 4. Pinker fabric type.
- 36 Small cooking pot/jar with everted rolled rim (150 mm). Vessel 140. Context 92, Period I, Area 4.
- 37 Finely thrown cooking pot with everted rolled rim (140 mm) and internal lid seating. Sooted on the exterior. Vessel 172. Context 106, Period I, Area 2.
- 38 Finely thrown cooking pot with everted rolled rim (100 mm). Sooted on both interior and exterior surfaces. Vessel 184. Context 92, Period I, Area 4.
- 39 Finely thrown cooking pot with everted rolled rim (100 mm). Vessel 179. Context 51, Period IV, Area 2.
- 40 Finely thrown rounded skillet/ladle with everted rolled rim (160 mm) and pinched spout. Vessel 169. Context 92, Period I, Area 4.
- 41 Jug with tall rilled neck and clubbed rim (100 mm). Vessel 265. Context 259, Period III, Area 3.
- 42 Jug with simple clubbed rim (85 mm) and splashed green glaze on the exterior surface. Vessel 238. Context 51, Period IV, Area 2.
- 43 Tall jug neck with cordon and clubbed rim (100 mm). Pinched spout. Splashed green glaze on the rim. Vessel 233. Context 126, Period II, Area 2.
- 44 Large rounded jug with cordoned neck and clubbed rim (100 mm). Pinched spout and strap handle. Rilled shoulder zone on the body. Zones of green lead glaze on the exterior. Vessel 299. Context 319, Period I, Area 2. Red fabric type.
- 45 Jug with simple rolled rim (100 mm). Vessel 280. Context 25, Period III, Area 4.
- 46 Large jug with short cordoned neck and rolled rim (140 mm). Scar from strap handle attached at the rim. Vessel 260. Context 50, Period IV, Area 2.



ILLUS 30 Pottery 33-48, 51-2 (scale 1:4)

- 47 Jug with tall cordoned neck, rolled rim (200 mm) and pinched spout. Yellow/green splashed lead glaze on the exterior. Vessel 252. Context 229, Period I, Area 4. Similar to Kelso Abbey example (Cox *et al* 1984, *illus* 20).
- 48 Jug with tall rilled neck, inturned rolled rim (120 mm) and pinched spout. Zones of green lead glaze on the exterior. Vessel 267. Context 26, Period III, Area 4.
- 49 Large rounded jug with inturned rim (90 mm), pinched spout and slight cordon on the neck. The single strap handle comes off the rim and the base is slightly sagging. Decoration in the form of square rouletted notches and splashed green lead glaze is confined to the exterior upper body zone of the vessel. Near the base a single small hole (4 mm) has been drilled through the wall of the vessel. The base was found *in situ* in the Period I work area 140. Vessel 279. Context 140 and 92, Small Find BB; Period I, Area 4.
- 50 Rounded jug (not *illus*) with cordoned neck and everted rim (150 mm). Unglazed. Vessel 251. Context 172, Period IV, Area 1.

Fabric 2: Kelso Abbey Redware (illus 30 & 31)

This highly fired, wheel-thrown earthenware features abundant quartz of less than 0.2 mm and moderate subangular quartz of 0.3–0.5 mm, which blisters through the thickly slurried surfaces, and moderate red iron ore of less than 0.2 mm. Mica is also abundant. The surface colour can be very pale brown (10YR 8/4) or reddish yellow (5YR 7/6) with a reduced grey core (7.5YR 5/0). There are an estimated nine cooking pots in this fabric, including two smaller examples.

Vessels in this fabric have been found at Lindisfarne (Bown 1985), Kelso Abbey (Cox *et al* 1984, MEE 51), on excavations at Wester Kelso (P Dixon, pers comm), and is identified as ‘Kelso Abbey Redware’ in the medieval pottery reference collection of the National Museums of Scotland.

The majority of the sherds on the present site were found in Period I and III, with many of the sherds belonging to one vessel in Period I. The suggestion that the straight-sided cooking pot was a 12th-century innovation in Scotland (Cox *et al* 1984) would appear to hold true at Springwood Park, where this fabric has a distribution pre-dating the earlier phase of stone walled building (Period II).

The nine cooking pots are represented by rims ranging from 160 mm to 200 mm, with one exception of 120 mm. The only complete vessel form (*illus* 30, no 51) shows the typical straight-sided body shape and everted rim. Base sherds are slightly sagging with sharply angled, knife-trimmed outer edges. Body sherds average 5 mm in thickness and 10 g in weight. In general the sherds are heavily sooted and occasionally splashed with lead glaze on the exterior. Two of the cooking pots (*illus* 30, no 52 and *illus* 31, no 53) are smaller vessels and therefore more squat and rounded in form. The rims are more angular than the typical form (ie *illus* 30, no 51). There are no base sherds to suggest the rest of the vessel profile for these smaller vessels.

- 51 Cylindrical cooking pot with everted rolled rim (200 mm) and slightly sagging knife trimmed base, sooted on the lower part of the external surface. Splashed yellow/green lead glaze on the exterior. Vessel 284. Context 159 and 184, Periods I and III, Area 4.
- 52 Smaller squat cooking pot/jar with everted rim (180 mm). Wheel-thrown with wiped surfaces. Vessel 287. Context 58, Period IV, Area 2.
- 53 Finely thrown rounded cooking pot with everted rim (120 mm). Sooted on both interior and exterior surfaces. Vessel 175. Context 231, Period II, Area 2.

Fabric 3: Scarborough Ware Phase I & II (not illus)

One jug sherd in Scarborough Phase I fabric (following Farmer 1979) is decorated with vertical incised lines and applied vertical strips. Four sherds are of Scarborough Phase II fabric. With one exception all have a continuous copper green glaze on the exterior. These sherds are scattered between Periods I, II and IV and must represent the odd vessel being brought to the site at different periods of its occupation. Their production dates are thought to lie in the late 12th to the mid 14th century and are contemporary, therefore, with the occupation of the settlement at Springwood Park.

Fabric 4: unknown provenance (illus 31)

This wheel-thrown pottery is finely tempered with subangular quartz sands, which are abundant at less than 0.2 mm, moderate at 0.5 mm and occur occasionally at 1 mm. Red iron ore is abundant at less than 0.2 mm and occurs moderately at 0.4–0.5 mm. Large red iron ore inclusions between 3.5 mm and 5 mm cause occasional protrusions on the surface of the sherd. The occasional calcareous inclusion varies in size from 0.4 mm–1 mm. In colour it is reddish yellow (2.5YR 6/8) throughout with darker reddish brown surfaces (7.5YR 6/2).

The single vessel in this fabric (illus 31, No 54) is a tall, conical jug with a long strap handle and a flat base; it is distorted slightly in shape, producing a flatter side on the outer profile below the missing spout. There is a continuous copper green glaze all over the exterior. No parallels for this are known to the writer. The sherds of this were found in a Period III pit in Area IV and could possibly post-date the occupation of the buildings.

- 54 Tall conical jug with single long strap? handle and flat base. Glazed on the exterior in a copper glaze which covers most of the body and is splashed on the base as well. Vessel 292. Context 161, Small Find CB; Period III, Area 4.

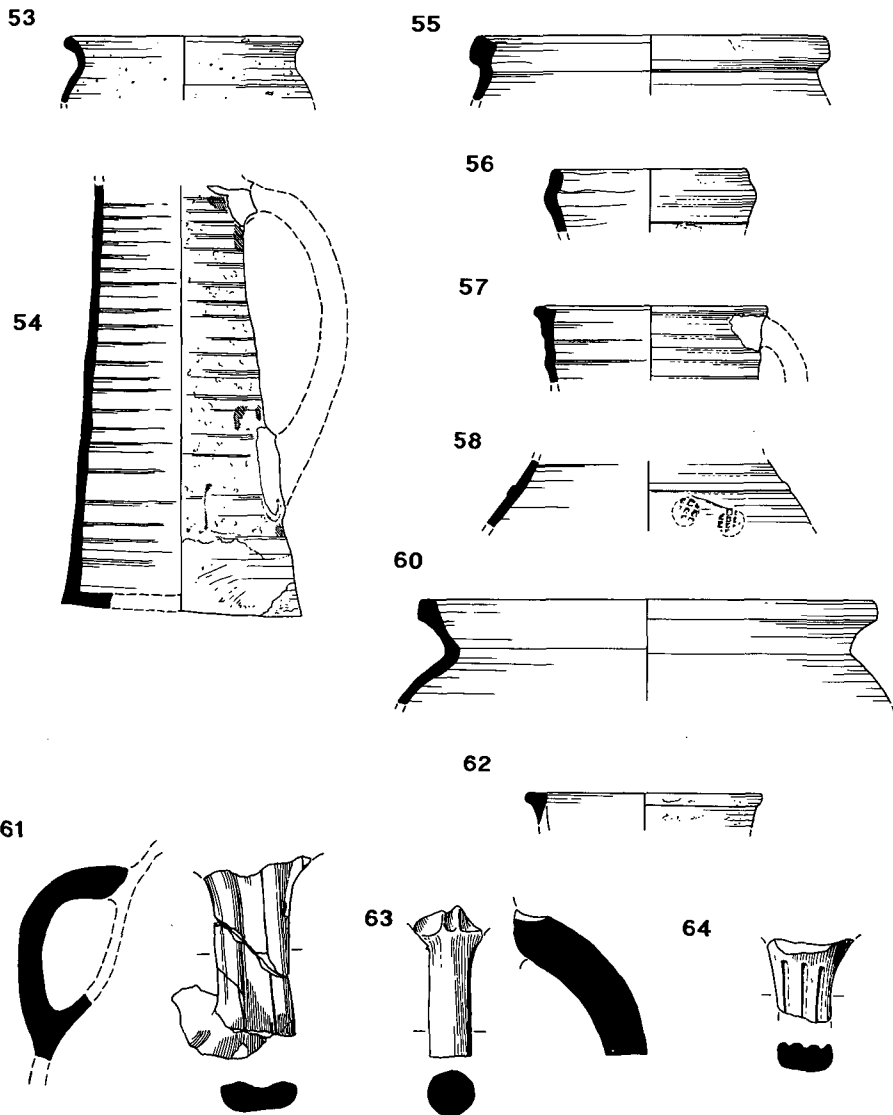
Fabric 5: unknown provenance (illus 31)

This very finely tempered, wheel-thrown fabric has a fine matrix with abundant subangular quartz grains and red iron ore of less than 0.2 mm. Occasional larger inclusions are clear quartz grains of 0.4 mm to 0.5 mm, red iron ore of 0.5 mm to 2 mm and calcareous inclusions of 0.5 mm to 1 mm. Fine mica is abundant. The surfaces are oxidized pink (7.5YR 8/4) or reduced light grey where glazed (7.5 YR 7/0) with a darker grey reduced core (7.5YR 5/0).

One jar and one jug are represented (illus 31, nos 55 & 56). Other jugs are represented by rod handles (illus 31, no 63) and sherds decorated with vertical iron-stained strips. Most sherds have zones of green lead glaze on the exterior surface and occasional splashes of white slip on the interior. Sherds are finely thrown, averaging 4 mm in wall thickness and 3 g in weight.

No parallels are known to the writer and no assessment of date can be made on the basis of stratification, as all of the sherds were recovered from topsoil or post-occupation layers (Period IV).

- 55 Rounded jar with inturned clubbed rim (180 mm) and possible lid seating. Splashed green glaze on the body exterior. Vessel 293. Context 1 (topsoil).
- 56 Jug with cordoned neck and inturned rim (100 mm). Splashed yellow glaze on the body. Vessel 294. Context 1 (topsoil).
- 63 Rod handle, topsoil.

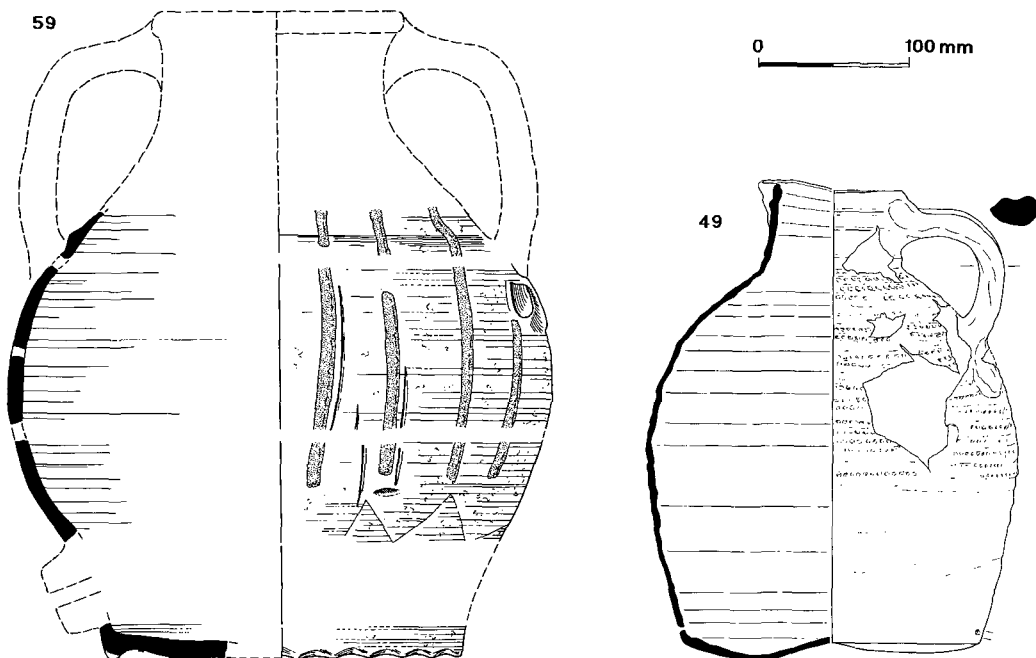


ILLUS 31 Pottery 53-64 (scale 1:4)

Fabric 6: unknown provenance (not illus)

This finely tempered wheel-thrown fabric has a fine matrix of abundant subangular quartz and red iron ore less than 0.2 mm. More moderately occurring larger inclusions are red iron ore of 0.4 mm to 0.7 mm. Other inclusions are sparse opaque quartz of 0.5 mm and occasional calcareous inclusions of 0.5 mm. Colour is reddish yellow (5YR 7/6) throughout.

Sherds with copper green glaze on the exterior were found but no reconstruction was possible. Other sherds, decorated with applied stamped vertical strips and the base pad for a dummy handle, represent jugs. Sherds average 5 mm in thickness and 7.5 g in weight.



ILLUS 32 Pottery 49 & 59 (scale 1:5)

No parallels are known to the writer. Sherds were recovered both from the earliest (Phase I) and latest phase (Phase IV).

Fabric 7: Reduced Gritty Ware Type 1 (illus 31)

In colour this wheel-thrown pottery is dark grey throughout (7.5YR 4/0). Jugs were represented by small strap handles; decoration included iron stained vertical strips, square notch rouletting, stamped outpressed bosses and slight cordons on the shoulder. All sherds are glazed on the exterior and appear to be table wares. The sherds are finely thrown averaging 4 mm in thickness and 4.5 g in weight.

This fabric can probably be equated with that of the same name found at Eyemouth (Crowdy 1986), and is possibly part of the Scottish East Coast White Gritty Ware tradition. On the present site sherds were most numerous in Period I, but also occurred in Periods II and III; sherds recovered from Period IV contexts were probably residual.

TABLE 6

Distribution of Reduced Gritty Wares Type 1 and 2 by period

Period	Subsoil interface	I	II	III	IV	19th century	Topsoil
Type 1	4	16	6	8	9	0	2
Type 2	8	14	6	49	46	2	5
Total	12	30	12	57	55	2	7

Fabric 7: Reduced Gritty Ware Type 2 (illus 31 & 32)

This wheel-thrown pottery is a reduced grey throughout (7.5YR 5/0) or reduced with oxidized reddish/yellow surfaces (5YR 7/6).

At least one jug could be positively identified. The other sherds in this fabric are generally thick (5–10 mm), averaging 17 g in weight and indicative of large vessels such as jugs or cisterns. They are generally glazed and frequently decorated with iron stained and stamped vertical strips (illus 31, no 59), combed lines, applied pellets and a stamped grid pattern (illus 31, no 58). Three slightly sagging base sherds have thumbled edges, which served to stabilize the vessel. Rod handles and strap handles with grooved decoration (illus 31, no 64) are present.

Vessels in this fabric type are comparable with pottery found at Eyemouth (Crowdy 1986) and equated to the later medieval Reduced Greenware Tradition found in Newcastle upon Tyne (Type 4, Ellison 1981; Bown 1988) and Jedburgh Friary (Crowdy 1986). Though the reduced and oxidized vessels at Springwood Park appear to be of similar fabric, the same clay type, and follow the same distribution pattern, it was noted in the Newcastle upon Tyne Castle Ditch assemblage that the oxidized fabrics occurred at a slightly later date (Ellison 1981). Again, there is no evidence for this at the present site. Perhaps this fabric is more closely linked to the Scottish East Coast White Gritty tradition than to a later medieval/transitional tradition as was thought at Jedburgh Friary (Crowdy forthcoming) or Eyemouth (Crowdy 1986), though this would appear to be inconsistent with the vessel forms.

- 57 Large jug with tall neck and clubbed rim (120 mm). Scar from strap handle shows it was applied to the top of the neck and rim. Vessel 297. Context 259, Period III, Area 3.
- 58 Jug sherd decorated with round grid stamps below a small cordon on the shoulder. The exterior surface has a continuous green lead glaze. Context 156, subsoil Interface, Area 4.
- 59 Large storage jar, or cistern, with rounded body decorated with iron-stained vertical strips and a slightly sagging, thumbled base (240 mm diameter); knife trimmed towards base. Contexts 20, 25 *et al*, Period III & IV, Area 4.
- 64 Strap handle with incised grooves; Context 46, modern field drain.

Fabric 8: North French (not illus)

This finely tempered wheel-thrown fabric has abundant subangular quartz of less than 0.2 mm, occasional red iron ore of 0.2–0.4 mm and abundant mica. Occasional larger inclusions are angular quartz of 0.5 mm. Colour is white (10YR 8/2) with pinkish white surfaces (7.5YR 8/2). Sherds were very finely thrown, averaging 4 mm thick and 3 g in weight, with a continuous green copper stained glaze to the exterior. These sherds occur in Periods I and IV.

Fabric 9: Rouen-type Ware (illus 31)

Of two sherds of this wheel-thrown pottery, one was off-white (10YR 8/1–2) and one very pale brown (10YR 8/3) with light red slip on the external surface (2.5YR 6/6). These represented jugs. One had a typical tall ridged neck, clubbed rim and clear yellow lead glaze on the exterior (illus 31, no 62). The second sherd was from a panelled jug with a red external slip and applied stamped vertical strip glazed in a clear lead glaze. These were finely thrown vessels, with sherds 2 mm thick and averaging 3.5 g in weight. This ware was produced from the early 13th to 14th centuries and occurred at Springwood in Periods II and III.

- 62 Club-rimmed jug (100 mm); Context 311, Period II, Area 1.

Fabric 10: unknown provenance (illus 31)

The fabric of this coarsely gritted, wheel-thrown pottery is a light brownish grey throughout (2.5YR 6/2). One rounded cooking pot with a large everted rim (240 mm) could be identified. The sherds were unglazed. It was a coarsely thrown vessel with wall sherds 6 mm thick. The vessel was similar in form to Low Countries Greywares of mid 14th-century date (eg Scollar *et al* 1970, fig V, nos 6 & 7, from Lampernisse). At Springwood Park the sherds were found in Period I contexts, where they may have been intrusive.

60 Rounded cooking pot with large everted rim (240 mm). Unglazed. Similar to Low Countries Greyware cooking pots. Vessel 296. Context 253, Period I, Area 4.

Fabric 11: unknown provenance (illus 31)

This fabric has a coarsely gritted, ill-sorted matrix with moderate angular quartz ranging from 0.2–0.7 mm, iron ore of 0.2–0.4 mm and mica; occasional larger inclusions are composite quartz of 0.5–6 mm size. Colour is a very pale brown (10YR 8/3) external surface with pink margins (5YR 8/3) and reduced grey core (7.5YR 5/0).

Several of the sherds are from a quite roughly potted (strap?) handled storage vessel and average 4 mm thickness. The weight calculation is distorted by the handle. Sherds occurred in contexts of Periods I, III and IV.

61 Strap handle from a storage jar. Contexts 46, 53, 257 & 260, Periods III & IV, Area 3.

Fabric 12: Cologne/Frechen (not illus)

Four sherds occur, two from bellarmine with stamped medallions. These were recovered only from topsoil.

Fabric 13: Post-Medieval Red Earthenware (not illus)

A single reddish-yellow (7.5YR 8/4) sherd with continuous clear lead glaze on both surfaces was recovered. This is probably 19th- or 20th-century in date and was found in a post-abandonment context (Period IV).

Fabric 14: China (not illus)

Four sherds of this were recovered, again from post-abandonment contexts (Period IV).

CONCLUSIONS

The composition of this assemblage is comparable with other recently excavated domestic sites in the Scottish Borders/Kelso area. The predominance of early medieval local wares is typical of 12th- to 14th-century assemblages in this region. The majority of forms are cooking pots in Scottish East Coast White Gritty Ware which form 94% of the assemblage, and also the more straight-sided vessels in Fabric 2, which have a slightly earlier distribution predominantly associated with Period I. The limited range of vessel forms is not surprising considering the type of dwelling excavated and the size of assemblage under examination. Fabric 7, Types 1 and 2,

probably also a local fabric type, is distinctive in being only associated with table wares, or large jugs and cisterns. Type 1 has an earlier distribution than Type 2, which peaks in Periods III and IV and is consistent with the introduction of a later medieval transitional fabric type in the 14th century as found at Newcastle upon Tyne (Ellison 1981) and Eyemouth (Crowdy 1986). An explanation of the distribution of the oxidized vessels in the Fabric 7 Type 2 presents more of a problem in the Springwood assemblage in that they follow the same pattern as White Gritty Ware and not that of the reduced vessels in the same fabric. Perhaps the problem can only be addressed by more detailed geological definition of the fabric types. Other occasional known and unknown medieval wares and imports must represent isolated contacts with the site at Springwood and mimics the occurrence of imports at coastal Eyemouth to a surprising degree, which may be a reflection of the closeness of the markets of Roxburgh.

TABLE 7

Pottery Types by Period of occupation (excluding Cologne/Frechen ware from the topsoil)

<i>Fabric Type</i>	1 WGW	2 KCG	3 Scar II	4 UP	5 UP	6 UP	7 RGW	8 Nth Fr	9 Rouen	10 LC?	11 UP
<i>Period</i>											
Subsoil	190	9	1	1	0	0	12	1	0	0	0
I	775	49	1	0	0	1	30	0	0	1	5
II	486	8	1	0	0	0	12	0	1	0	0
III	1468	25	0	1	0	0	57	0	1	0	2
IV	2304	8	2	0	1	3	55	3	0	0	1
19th century	44	0	0	0	0	1	2	0	0	0	1
<i>Total</i>	5267	99	5	2	1	5	168	4	2	1	9

DISCUSSION

Piers Dixon

The location of this site so close to the royal burgh of Roxburgh must have provided opportunities not available to more isolated settlements. Roxburgh was the chief market and administrative centre in the central Borders, exceeding Jedburgh and Kelso in importance, until after its demise following the siege of 1460. As a major entrepôt there would have been a continual traffic of rural produce into the markets and fairs of Roxburgh and ample scope for the sale of craft goods. Furthermore the demands of supplying the garrison of Roxburgh Castle with the rural produce of the locality are indicated by the documentary sources. The site lies adjacent to prime arable land so that the agricultural element is immediately accessible, while, on the basis of the surface scatters of pottery, which also extended across the excavation site, it forms part of a larger suburban settlement, possibly with more than one street, running up to the bridge to Roxburgh over the River Teviot from the west, south and east. Indeed it may be conjectured that the Brig End of the 16th century was the name of the suburban settlement of which this site was a part. With these points in mind what may be concluded from the structures excavated and artefactual assemblage recovered?

ARTEFACTS

The overall assemblage is not rich in terms of the quality of the artefacts, but is rich enough in their range. It is a more extensive assemblage than that from the fishing village of Eyemouth (Dixon 1986), but more comparable with urban sites such as Perth (Holdsworth 1987), except in

the poor preservation of organic artefacts, such as leather and wood. Few rural settlements of the medieval period have been excavated, and they have not been prodigious in the richness of the artefacts. The site at Dowglen in Eskdale, for example, did not produce a single artefact and the dating remains imprecise (Cannel unpubl), while the excavations at Pitcarmick, Perthshire, on a rural settlement that admittedly starts somewhat earlier in date than that at Springwood, produced a very limited assemblage of pottery and other artefacts (Barret & Downes 1994). Medieval pottery has been found at shieling sites in Perthshire (Morrison & Atkinson 1996), and Ayrshire (Fairbairn 1927), but there are few excavated settlements to compare with the lowland location of Springwood, except perhaps at the medieval burgh of Rattray in Aberdeenshire (Murray & Murray 1993), where the assemblage is more comparable in scope, but richer because of the presence of a manorial centre and its burgh status.

SETTLEMENT LAYOUT

The site appears to have comprised at least two adjacent properties through Periods I and II and at least initially in Period III. It was divided into two parts by a boundary ditch in Period I and in the later two occupation periods comprised two buildings and yards which may have fronted onto an open area or street on the slope of the old river terrace. The infilling of the space between the two houses in Period III, suggests that there was pressure on space that is more typical of urban environments. Such a row development suggests an ordered community, typical of rural settlement in the Merse and Teviotdale, where row settlements and adjacent tofts are documented (Dixon 1985). It is also typical of urban settlement, where adjacent burgage plots in a limited space may lead to infilling. Another urban aspect of the site is the number of pits scattered across the site. Every yard area has at least one pit. Assuming that at least some of these were rubbish pits, this does not suggest that there was easy access to open ground.

ECONOMY

The economic base of the settlement was essentially rural. The presence of cereals, wheat, barley, rye and oats, with oat and barley chaff, and weeds of cultivation are indicative of cereal cultivation in the vicinity and possibly of the threshing of oats and barley on site, in Period II in particular. Grain may have been stored on the stem as suggested by the charge for winnowing and threshing the corn supplied to Roxburgh Castle from Maxwell in 1266. No querns were found, but millstone fragments in reused contexts indicate a local township mill for the use of the peasant farmers (this would preclude the grinding of grain on site.) The existence of which is confirmed in the documentary sources for the later 14th century (Bain 1888, Item 306).

Although bone was poorly preserved, bone distribution was weighted to cattle rather than sheep, not an uncommon feature of urban sites such as Perth, though not a feature of the fishing village of Eyemouth (Holdsworth 1987; Dixon 1986). Pig and horse bone were also present. Indeed the latter were also well represented in the quantity of horseshoes and nails found on site, particularly on the house sites of Areas 2 and 4 in the earlier periods, where nails were found inside the houses, suggestive of the stabling of horses. Heckles, spindle whorls and a loom weight attest to the combing, spinning and weaving of wool for cloth, a traditional rural industry, but also indicative of easy access to wool.

Curiously, few of the tools typical of farming practice were recovered: no sickle or scythe, no spade-shoe, plough-shoe or shears. Indeed, a better assemblage of rural tools has been recovered at Perth (A Cox, pers comm). Otherwise, a good assemblage of tools was present.



ILLUS 33 General view of the site from south, showing the Period III buildings

Knives, hones and grindstones are all indicative of frequent use of cutting implements, for a variety of household purposes at which we may only guess. Woodworking nails and a claw-hammer hint at the use of nails in timber building techniques. The production of cheese is suggested by the presence of a storage jar with holes in its base, which would have made an excellent slow strainer, while the base of a jug which was set in the ground in the Period I midden with a 4 mm hole drilled in its side near its base, may have served a similar purpose.

LIVING STANDARDS

The loss of four silver coins indicates the relative richness of the site and its inhabitants. Yet the conversion of rents to payments in silver of the order of 12 shillings at Redden is an indication that there was a silver currency in circulation amongst the rural population generally. The hinge pivot for a door or window, hasps and staples for use in the securing of doors, a barrel-padlock to secure a door or gate, and a bronze key for a box or casket confirm that the householders considered security important, presumably because they owned valuable items and feared theft. An improved standard of living may be inferred from the levelling and drainage of the buildings in the final period of occupation, while the absence of a hearth in the Period III houses may indicate the introduction of a brazier style of cooking and heating. The ubiquitous cooking pots and storage jars with sagging bases suggest that cooking on an open hearth and storage on uneven surfaces were common. Also, the paucity of ceramic tableware suggests that flat surfaces or tables were rare. There were few decorative artefacts except for horse-brasses, two of them gilded. Buckles to secure narrow leather straps on clothing and an annular brooch with an iron pin were of a type commonly in use in the 13th and 14th centuries in England and Scotland, for securing cloaks, undergarments or even leather bootstraps, and give some indication of habits of dress; at least one brass tag-end for leather lacing was also found.

BUILDINGS

Period I: post-set structures

There was evidence for some sort of post-set structure in both Areas 3 and 4. Both structures were aligned on the same axis, but there was only one row of posts in Area 3, 5.6 m long, whereas that in Area 4 was a right-angled arrangement of posts, measuring 10 m in length by 4 m in breadth. The excavation of the ground to make level platforms for Buildings A, B and C probably removed the other side of the structures and their overall size and function can only be guessed. The posts were about 0.2 m thick with the greatest depth of post-pipe at c 0.5 m. Together with the midden scoops in Areas 2 and 4, this suggests that there was a 12th-century occupation phase in which timber-framed buildings were supported on earthfast, irregularly-spaced posts. Walls of a perishable material such as wattle-and-daub were probably hung on these and the whole was roofed with thatch.

Periods II & III: cruck-framed buildings

The buildings from the two later periods of occupation (13th to early 14th century) appear to have been cruck-framed structures with stone walls, bonded with earth or clay. The evidence for the use of crucks comes from a number of post-settings which were found in, on, or just inside the wall lines of the structures. This was best shown by the setting of a flat stone (broken in use),

edged on two sides by orthostatic stones, which was situated one third of the way along the west wall of Building C. The location of the setting, if it is a cruck-setting, suggests a bay width of 3.25 m and a total of three bays for the building. The setting was large enough to take a post up to 0.4 m in diameter, substantial enough for a roof truss on analogy with surviving examples. This setting was actually 0.56 m off the ground within the wall of the building, but virtually at ground level on the outside due to the terracing of the house-site of Building C at this point. Since few walls survived this high it is perfectly possible that other such settings did not survive.

Some crucks were set in post-pits. Building D in Period II had one pair of posts which were set in the ground in substantial post-pits, just inside the wall-line at the extreme west end of the Building. The primary setting of the pair on the north wall was set on a padstone 0.38 m long and 0.25 m wide about 0.15 m below the ground surface in a pit dug for this purpose, and large enough for a post of the dimensions given above for the cruck-setting in Building C. This setting was replaced with another immediately to the east, set more deeply in the ground. On the south side of the building, the initial cruck-setting that formed the pair must have been set on the bedrock, but the replacement was set in a rock-cut post-pit.

The third variety of setting was represented by a ground-level padstone at the north-east corner of Building D in an area where its walls had been robbed. This stone was actually set into the top of a post-pit from the previous phase (Period ID). Of the remainder it is surmised that the posts were set either on the bedrock, where this was available, as might be the case in Building A, or on the ground, resulting, it is suggested, in the shallow scoops which were found in Buildings E and D. Naturally, the robbing of the buildings will have removed some of the padstones and plinths that supported cruck-timbers.

One unresolved question is how the ends of the buildings were roofed. Were they hipped or gabled? The squared ends and the juxtaposition of the Period III buildings, with Building B inserted between Buildings A and C, would favour a gable-end construction, since there would have been problems with the run-off from the roof if they were hipped. This would either imply a cruck-framed roof with a cruck truss at the ends of the buildings or a gable capable of supporting the weight of the roof. The limited quantity of tumbled stone would appear to preclude the latter. This suggests that the gable was infilled with some more perishable material, such as wattle and daub, clay, turf or timber planks. An end cruck, as in some Highland buildings, such as the barn at Corrimony (Hay 1973), is theoretically possible, but requires a high level of joinery and no convincing end wall settings were identified. Evidence for a cruck-truss at the gable comes from Building D, where a cruck-truss was set in post-pits just short of the west end, where the bedrock stepped up. The location of a padstone at the east end and an earth-based cruck-setting in the north-west corner of Building E lends weight to this interpretation.

The walls of the houses were constructed in clay on stone footings. The footings were faced with large boulders and infilled with smaller stones and earth or clay. The footings generally stood two or three courses high, except where the building was terraced into the slope, facilitating a higher footing for which no external wall was required. The clay walls would have been erected on this base, infilling the gap between the footings and the wall-plate, over which the eave of the roof would have hung. The clay was composed of an aggregate of clay and small to medium-sized rubble, although the proportions may have varied considerably. Such construction may be seen at Prior Linn, Canonbie, Dumfriesshire (Stell 1972), both with respect to the walls and the cruck-framed roof. It is, of course, possible that not all the buildings had the same walling. The spread of rubble consonant with clay wall infill which was observed in Building A, E and possibly B, is not evident to any degree in either Building C or D. The use of turf-walls cannot be ruled out, while timber-planking or wattles are well-attested forms of construction (Fenton & Walker 1981).

Cruck construction

A cruck is basically a type of A-frame. Recorded examples of surviving cruck buildings in Scotland indicate a pair of slightly curved beams, joined at the apex of the A by a yoke beam, and strengthened by a tie beam or collar (the cross-stroke of the A). The yoke supports the ridge beam, which is connected to the next cruck, and, with the purlins takes the main weight of the roof. (The ridge beam would not run the length of the building, but would be a series of beams of appropriate length for the width of each bay.) Lateral movement is checked by joining the purlins to the crucks, although diagonal beams can also be used as necessary. Once the crucks are all standing and the purlins and wall-plates are added, cabers are laid over, preparatory to the covering of thatch. If the building is thatched, it requires a slope of at least 45 degrees for the water to run off effectively.

In the present case, the width of the truss was about 4 m on site evidence, but the roof had to cover the wall-tops to prevent the walls being washed away every time it rained. Thus it had to span as much as 6 m, since the walls were up to about one metre wide. With the assumed angle of the roof and the width required to cover the walls, a height of about 5 m to the ridge would have been needed. This space could have been lofted, but this is less likely in a building that had open hearths with the smoke escaping slowly through the thatch, or perhaps through a wooden chimney or hanging lumb.

Roof-covering

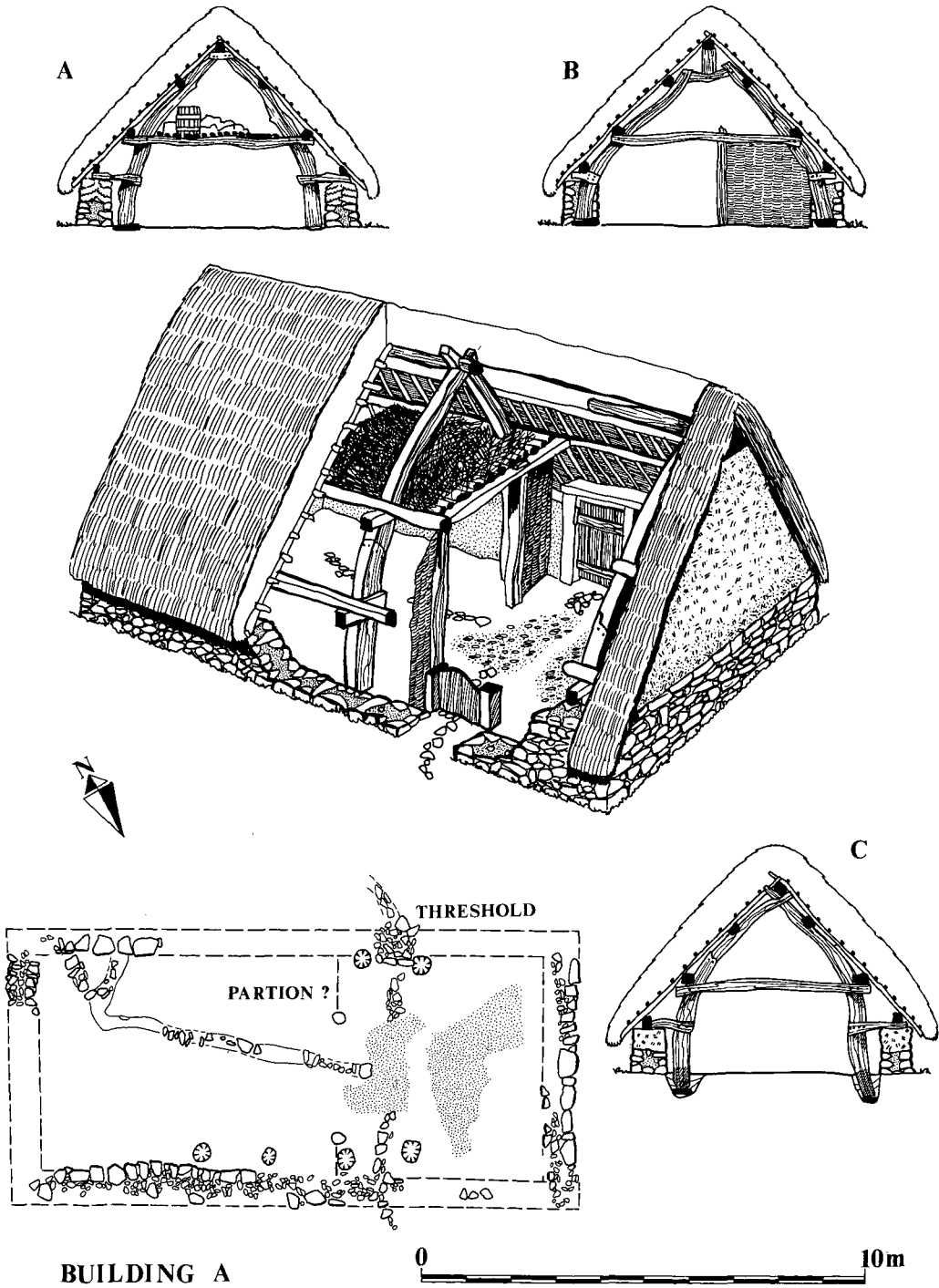
Heather, which is not found within 14 km of Kelso today, was found in quantity in the Period II samples from Area 4, and may indicate the use of heather in roofing. A burnt deposit containing a large amount of heather, thought to be from a collapsed roof, was also found at Rattray (Murray & Murray 1993, 141), while it has also been proposed as a cheap method of roofing at West Whelpington (Evans & Jarrett 1987). Alternatively, with the widespread growth of cereals nearby, there was probably ready access to straw for thatch, and the heather here could also have been used for bedding and other purposes. However as has been suggested, corn may well have been stored or sold on the stem, in which case the use of heather may have been preferred.

Entrances

The evidence from Building A in Period III is the best preserved and suggests that it had opposed entrances about one third of the way from the north end. The door was hung on a frame supported by two posts on either side of a raised stone threshold. This would have helped reduce drafts and surface run-off getting into the house. There was similar but slighter evidence for the opposing entrance in the east wall. The evidence for entrances in the other two buildings of this Period is less conclusive. A paved threshold is suggested in the middle of the west wall of Building B, with a outshot store immediately to the south; but Building C can only have had one entrance on the east side, since there is no suitable gap in the foundations on the west. There was no clear-cut evidence for an entrance in either of the Period II buildings.

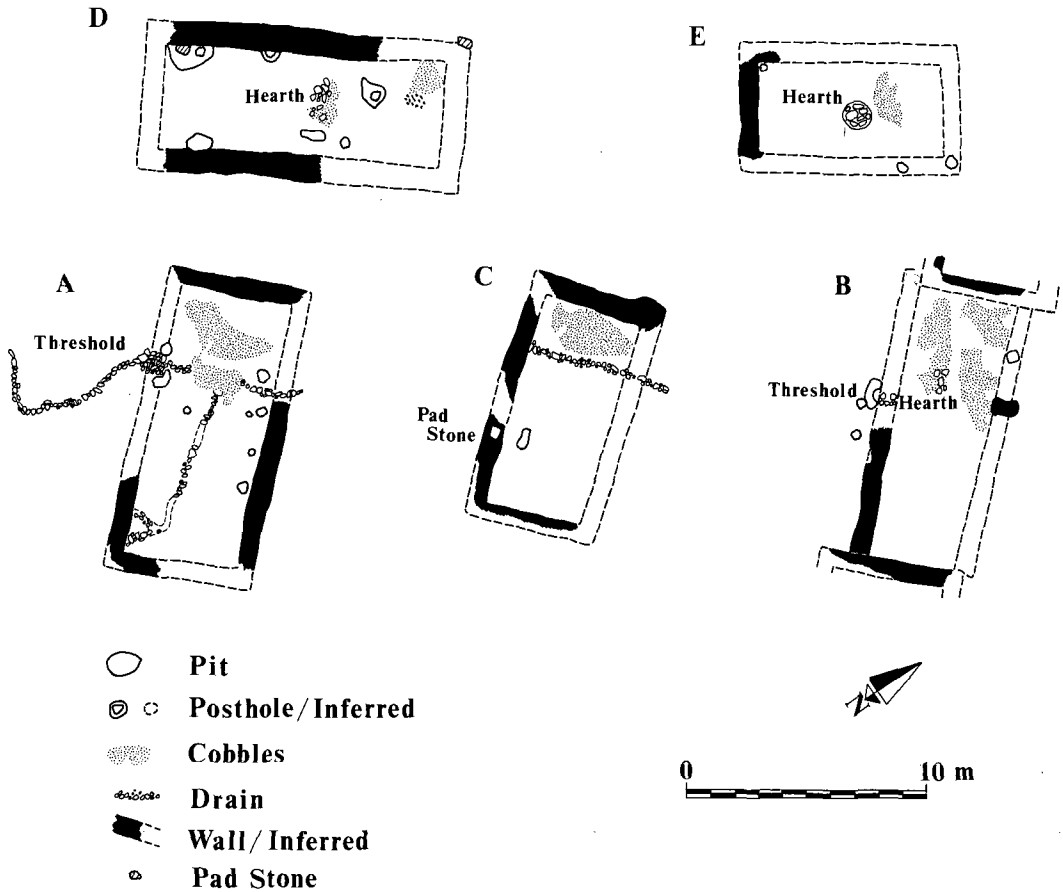
Partitions and byre-stands

Partitions are suggested by post-pits within some of the buildings. The best example is a deep-set post-pit in the interior of Building A which may have supported a post on which a party wall of



BUILDING A

ILLUS 34 Cut-away reconstruction of cruck-framed building, with sections showing the variations in the padstone settings: A, on the ground; B, in the wall; C, in a post-pit. Note also the different wall-types with turf on stone footings in A, random rubble in B and clay on stone footings in C



ILLUS 35 Comparative house plans

perishable material might be hung. This was positioned immediately south of the cross-passage between the opposed entrances, thus dividing the byre-stand (see below) from the living end. The post-pits in the interior of Buildings C and D may also support a partition, but that in Building C is positioned away from the byre-end, providing a completely different internal division of space. All three of the Period III buildings had a stand of cobbling at the north-end, such as might be expected in a byre. This is a notable feature of these buildings, but it was not as evident in the Period II houses, where the cobbled areas were much more limited zones associated with the hearth. Longhouses or peasant buildings with byres at one end and living quarters at the other, as suggested here for the Period III buildings, are a common feature of Scottish rural housing before the Improvements period. Their origins may lie in the late first millennium AD, with longhouses at Pitcarmick being the earliest known examples of the type to date (Barret & Downes 1994).

Drains

The two primary Period III buildings, A and C, had stone-lined and capped drains, to help deal with the water run-off which must have been a particular problem once the house-platforms had

been terraced into the slope. The drains were not large, with a cavity about 0.3 m wide and 0.15 m deep, lined with small orthostatic stones and capped with flat stones. In both Buildings A and C they were planned from the start since they run under walls and are earlier than any other structural feature. That in Building A has two main branches as part of a system of drainage designed to channel the run-off both inside and outside the building. It does not appear to have been solely a byre-drain in concept. The simpler drain along the edge of the cobble stand in Building C, on the other hand, may have been designed essentially for such a purpose, but the absence of a drain in Building B would suggest that it was not essential for the functioning of the byre, although it may have been an improvement. A stone-packed drain, without any lining, was found in the north-east corner of the Period II Building D.

Hearths

Oddly enough no definite hearths were found in any of the Period III buildings. A well-made circular stone hearth-base was set in a shallow pit in the centre of the Period II, Building E, itself replacing an earlier hearth. Two possible hearths were suggested on the basis of centrally placed groups of flat stones in Buildings B and D, but neither displays any signs of heat or burning. Since large flat stones may be desirable as hearth-bases and the buildings were robbed, it is possible that the hearth stones were taken for use elsewhere. Another alternative is that a brazier was used for heating and cooking in the Period III houses, thus raising the hearth off the floor. At the east end of Building D in Period II there was a layer of ash partly spread over a cobbled surface and a nearby charcoal-rich deposit, but no hearth surface or base. This may indicate a nearby hearth, but if so the hearth stone had been robbed or perhaps here there was a brazier in use.

Building size

The number of complete or partial house sites available for discussion is small. Indeed, only the stone buildings from Period III are complete, while the size of the Period II buildings can only be estimated. These measurements compare well with those buildings recorded in Southdean considered to be potentially late medieval in date, such as those at Martinlee Sike (RCAHMS 1994), and also with the 13th-century and 14th- to 16th-century buildings at West Whelpington (Evans & Jarrett 1987).

TABLE 8

Comparative plans of buildings (illus 35)

Building	Internal dimensions (m)		Floor area (sq m)	Period
	<i>length</i>	<i>width</i>		
D	13	4	54	II
E	8	4	32	II
A	10.5	4.5	47	III
B	11	3.5	38.5	III _A
C	9	4	36	III

Building layout

One of the most intriguing aspects of the site was the layout of the buildings. There appear to have been two major replanning episodes. The slight evidence for the Period I timber buildings indicates that they were aligned north/south. This changed to an east/west alignment with the

construction of the cruck-framed buildings in Period II, and was followed by a return to a north/south axis for the Period III buildings. Although only a small part of the settlement was excavated, the evidence here is strong enough for two points to be made. First, that the terrace edge represents the line of a common or public way which the houses respected and, second, that the changes in the axis of the buildings between Periods II and III resulted from an act of planning. There was clearly a recognized delineation of public and private space, which was maintained throughout all three periods of occupation.

Communal acts of replanning are not easily achieved in an urban environment, where the burgage plots are freely held, or in a settlement where the tenants are freeholders with the right of alienation of their land. Consequently it may be inferred that the type of occupant was not a freeholder, but a tenant-at-will such as a husbandman or cottar, dependent on the instructions of the Maxwells as barons of the lordship. However, the occasion of such an act needs explanation. A traumatic event such as devastation by war or an accidental disaster such as the plague would have provided a suitable occasion for a reorganization to be effected. Such events are not difficult to seek. There were several sieges of Roxburgh during the 14th century (1314, 1342 & 1346), each of which may have led to the wasting of settlements in the area. There was at least one outbreak of plague in 1349–50; its effects on southern Scotland are thought to have been severe (Grant 1984) and may have led to a traumatic depopulation. These various events may have provided opportunities for reorganization of settlement. Indeed one of these may have been the reason for the site's demise at the end of Period III and also of the abandonment of the buildings at the end of Period II. The demise of both periods may lie in the 14th century, since the dating from the artefacts provides a *terminus post quem* in the 13th-century and certainly after 1195 on coin evidence, which could be as late as the early 14th century. The evidence for an interval between Periods II and III does not preclude this interpretation, indeed it need not have been more than a single year. The Edward I coins in the collapsed rubble of Building A could have been dropped during demolition or could have been placed in a wall-cavity during the occupation of Period III for safe-keeping (an example of this occurred at West Whelpington in a 13th century building: Evans & Jarret 1987, 237), only to be lost at desertion later in the 14th century. Why the site was not reoccupied must remain unclear, but the changes in population in the late medieval period and the ever present threat of warfare so close to Roxburgh may have made it difficult to attract tenants after the mid 14th century.

The best parallels for the replanning of rural settlements at this period come from the English side of the Border. At West Whelpington, for example, it has been argued that there was a devastation of the site in the early 14th century and a subsequent replanning of the village in the late medieval period (Evans & Jarrett 1987 & 1988). The tenants of West Whelpington were not freeholders and there was ample scope for the landlord to redesign the village.

CONCLUSIONS

The importance of the excavations at Springwood Park lies in the almost unique examination of a rural settlement of the 12th to 14th centuries. Clearly more rural settlements of this period need to be located and excavated from both lowland and upland contexts. The accumulated evidence suggests that the settlement was firmly rural in its economic and social base, despite the closeness of Roxburgh. The buildings, in the final period at least, appear to have been longhouses or byre-dwellings, a tradition that is common to both Scotland and northern England. And lastly but not least, the Period II and III buildings were cruck-framed, confirming that Scotland has medieval antecedents for this style of construction going back to the 13th century.

ACKNOWLEDGEMENTS

Thanks are extended to the following persons and organizations. The excavation was supervised successively by Paul Sharman (Feb-Sept 1985), Dick Grove (Oct-Nov 1985) and Julian Cotton (Mar-Oct 1986) under the direction of the author. The post-excavation work was carried out by the author and Denise Drury, who also worked as a site assistant on the excavation. The Small Finds were drawn by Lesley McLaren; the plans, sections, pottery and reconstructions by Alan Braby. Thanks are extended to Jim and Roger Elliot, farmers at Springwood Park, Kelso, for giving permission to carry out the excavation and much practical support; to the sponsors of the Borders Burghs Archaeology Project — Borders Architects Group — who raised the funding from the Manpower Services Commission; to the staff of Borders Regional Council who provided the essential administrative resources; to Historic Scotland for the preparation of the publication; and to all the personnel who worked on the excavation. I should also thank Bruce Walker and Olwyn Owen for reading and providing helpful comments on the text. Finally I should like to thank the Royal Commission on the Ancient and Historical Monuments of Scotland for providing the time and support in kind for the publication work to be carried out. The Borders Burghs Archaeology Project was established in July 1983 to carry out archaeological investigations of sites due to be developed in the historic burghs of the Borders.

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This paper is published with the aid of a grant from Historic Scotland