

Excavations at Castlehill of Strachan, 1980-81

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SUMMARY

Two seasons of excavation on this typical northern motte revealed information relating to the construction of the motte, a timber hall on the summit encircled by two phases of palisade, the surrounding ditch, and an approach causeway. Geomorphological investigation coupled with aerial photography has enabled the reconstruction of the thirteenth-century landscape around the motte. Ceramic and numismatic evidence indicates an occupation span of less than a century, from c 1250 to the early fourteenth century. Three furnaces or ovens were found, each with a reused millstone as a base, apparently unrelated to the evidence of ironworking discovered in the form of blooms and hammerscale. The site appears to have originally functioned as a hunting lodge of the Giffards.

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INTRODUCTION

Castlehill of Strachan (NGR NO 662 921; OD 80 m) stands as a low mound in a field just S of the B976, one mile W of the village of Strachan in the modern district of Kincardine and Deeside, Grampian. The motte is a flat-topped, unprepossessing natural knoll of sand and gravel standing 6 m in height above the floodplain of the River Feugh (illus 1). A scheduled ancient monument, the site was first visited by the author in 1979 as part of a research project on Anglo-Norman settlement, at which time serious erosion was observed. This was caused partially by considerable rabbit-burrowing on the summit and slopes, and mainly by the weathering of an exposed quarry face on the western side. Between a half and one-third of the summit area has been destroyed by gravel extraction in recent years, and clear evidence was visible in the exposed section of a number of large postholes. These, together with the unusually well preserved, clear summit prompted the author to initiate a small-scale rescue excavation and survey project in 1980, partially grant-aided by the Scottish Development Department (Ancient Monuments), together with funds from BP and Esso. The success of this resulted in the SDD funding a five-week season in 1981 on a much larger scale, during which the investigation of the motte summit, slopes, base and surroundings was successfully completed.

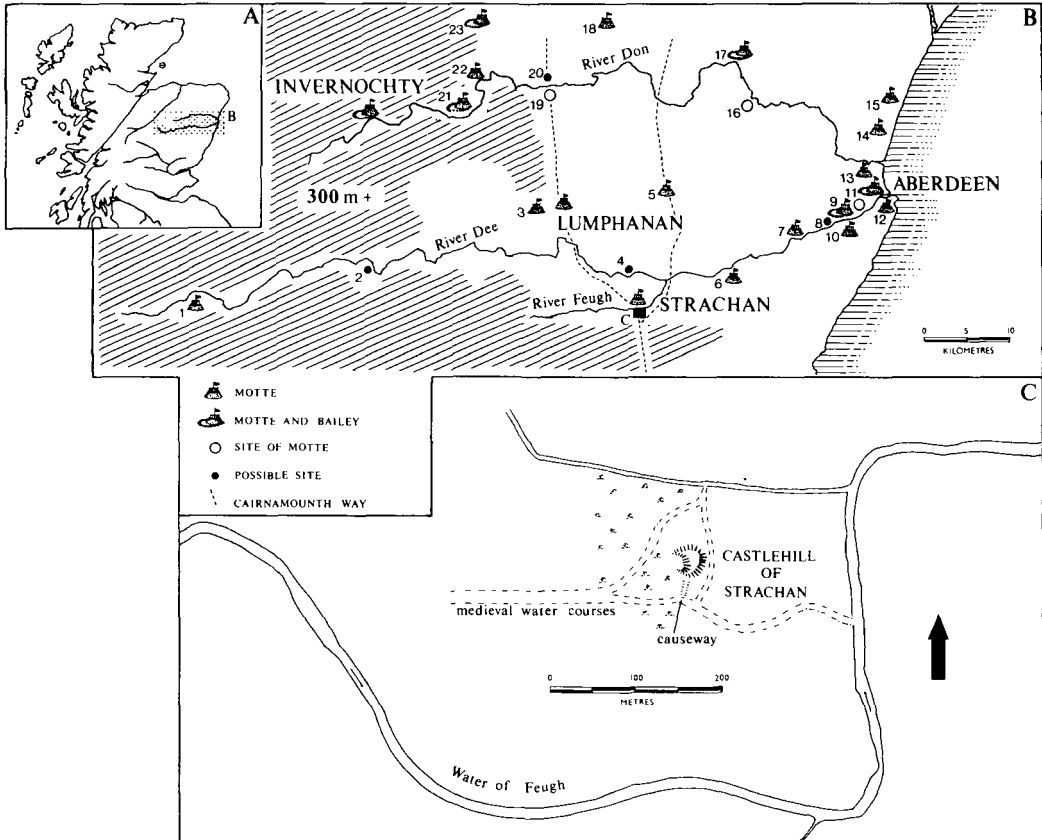
SITUATION: THE MEDIEVAL LANDSCAPE

The motte at present lies within a half mile wide loop of the River Feugh, some quarter of a mile N of the southern course. This was not always the case, but rather a post-medieval



ILLUS 1 The Castlehill looking S towards the Mounth

regularization of the earlier, more complicated water channels (see location plan, illus 2). A number of damp, linear areas are visible around the motte, which have been plotted using aerial photography, and tested with geomorphological bores (appendix 9; illus 30). These proved to be water courses contemporary with the occupation of the Castlehill, creating a natural island with the motte in the middle, surrounded on all sides by areas of marsh and running water. Access would have been restricted to only those who knew the position of the natural causeway S to the medieval fording place. Whether or not the modern loop co-existed with the other channels is unclear.



ILLUS 2 Location plan. Key to mottes on location map B 1 Old Kindrochit, Braemar, 2 Knock, 3 Auchenhove, Houff, 4 Cairnton, 5 Midmar, 6 Durriss, Castlehill, 7 Culter, Camphill, 8 Cults, 9 Pitfodols, 10 Banchory-Devenick, 11 Ruthrieston, 12 Nigg, Balnagask, 13 Tillydrone, 14 Mundurno, 15 Belhelvie, 16 Kintore, Castlehill, 17 Bass of Inverurie, 18 Auchleven, 19 Alford, 20 Tullynessle, 21 Fichlie, 22 Old Kildrummy, 23 Auchindoir

Charter evidence informs us that a great deal of the southern part of the barony was afforested as a hunting reserve. The drier, slightly higher land to the N and E, and especially around the dispersed medieval farmsteads, would have been laid out in strips with individual holdings of rigs distributed throughout these fields. Pasture and meadow would also have existed. The other important element of the settlement would have been the mill, probably owned by the

lord, which may have been sited between the motte and the church. It is important to note that the settlement would not have been nucleated around the church, as it is today, but rather would have taken the form of dispersed houses and small-holdings spread out along the valley.

HISTORICAL BACKGROUND

By the time Strachan was built in the mid-thirteenth century, this area of Scotland, north of the Mounth, had already undergone a transformation owing to the introduction of feudalism. David I initiated a framework of *sheriffdoms*, each with a centralized *caput*, usually based on a royal castle held by a King's officer. This centralized control was based on mottes, and subsequently some stone castles, from the twelfth century into the fourteenth century, and as local administrative and strategic centres these are useful indicators of Anglo-Norman settlement (Yeoman forthcoming).

The barony of Strachan, in the earldom of Mar, was granted no later than 1195 by William I (1165–1214) to William Giffard, a member of the important Giffard family which held lands elsewhere in Scotland (notably at Yester, Lothian) and in the south of England. The charter recording this grant states that the lands were to be held 'in forest' as a baronial hunting reserve (Barrow 1971, 343). Apart from functioning as a hunting lodge, the motte also served as a centre of local authority, controlling the lands around Strachan. The Church of the Blessed Virgin Mary at Strachan, within the diocese of Brechin, was in existence by 1243.

The charter evidence, viewed in isolation, would suggest an early thirteenth-century date for the construction of the Castlehill. The archaeological evidence, however, is at variance with this, suggesting a construction date of c 1250. This gap may be explained by the possibility that the original Giffard hunt-hall at Strachan was an undefended structure, and that the Castlehill was occupied in response to localized hostilities.

Strachan fulfilled an important strategic role in guarding the fording place on the Feugh through which ran the western fork of the Cairnamounth routeway. Control of these communication routes was vital to ensure access for royal and baronial officials and officers. This route from central Scotland ran NW from Strachan to the important Durward motte at Lumphanan 10 miles distant, and beyond, into the hinterland of Mar and the Garioch.

The castle appears to have been occupied continually from the mid-thirteenth century until it was partially destroyed and dismantled in the early years of the fourteenth century. It is entirely possible that this destruction was executed by King Robert's troops in early summer 1308 during the Wars of Independence, in the period immediately following the defeat of the earl of Buchan. After this battle Bruce probably captured Aboyne Castle 11 miles W of Strachan, which had been garrisoned by the English, and then travelled to take Aberdeen in May or June 1308 (Barrow 1976, 250). Whichever route was taken, the army would have passed close to Strachan, and the archaeological evidence of destruction would suggest that the castle had been held by supporters of the English king or at least by those loyal to the Balliol or Comyn causes.

Dr Grant Simpson's documentary notes (*infra*) record the transference of the barony to the Frasers in the early fourteenth century during the reign of Robert I. It is very unlikely that the reference to 'my chief manor-house of Strathachyn' in a grant dated 1351 refers to the motte, but rather suggests the presence of another lordly residence somewhere in the area between the motte and the village. This could have taken the form of a timber hall, moated site or even a stone tower-house now long-vanished. A possible site for this is the modern-day farm of Letterbeg, situated on the S-facing slope a half-mile to the NE of the Castlehill. This site is named on Roy's map of 1750, which interestingly omits any record of the Castlehill.

Another point of interest arising from documentary sources is the mid-fifteenth-century

record of hunting at Strachan, possibly based on a hunt-hall which superseded the hall on the Castlehill.

NOTES ON PRIMARY DOCUMENTARY REFERENCES TO THE BARONY OF STRACHAN

Grant G Simpson

William I granted Strachan to William Giffard (1189×1195) to be held in forest. No other documentation has so far been traced to link the family with Strachan. The Giffards lost the lands during the reign of Robert I, when they are granted (1306×1329) to Alexander Fraser (*Reg Mag Sig*, i, 1 no 20).

Margaret Fraser, grand-daughter of Sir Alexander, brought Strachan and other lands to William Keith, King's Marischal by her marriage to him at an unknown date (*Scots Peerage*, vi, 36). This was some time before 1351 when William and Margaret made a grant which was issued 'at my chief manor-house of Strachachyn' (Strachan) (Webster 1982, no 134). In 1375 the said William and Margaret granted to Robert Keith, their son, the lands of the barony of Strachachyn, with all forests of same (*Reg Mag Sig*, i, no 500). An interesting deed of 1446 records that a conversation took place prior to that year between William of St Michael and Sir Robert Keith 'at Strachachyn when they were there for hunting' (*Aberdeen-Banff Illustrations* 1857, 319-20).

THE EXCAVATION

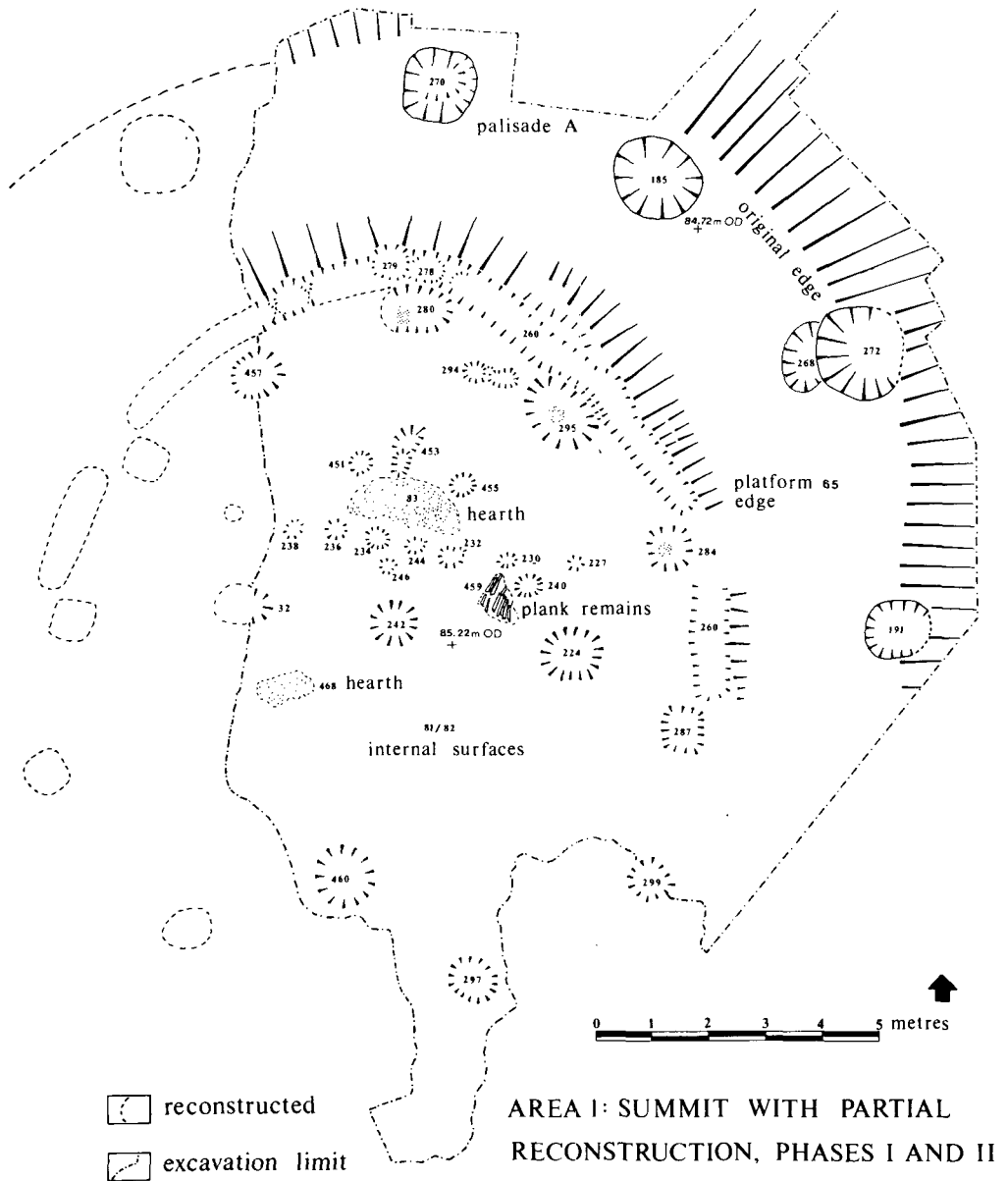
SECTION I

Phase 1 The mound and palisade construction, c 1250 (illus 3)

The report on the geomorphology of this kame (appendix 9 and fiche 4: D13) describes the appearance of the mound top and sides as they were seen by the builders of the motte in the mid-thirteenth century. The sides were already steep, possibly at an angle of between 30° and 40°, especially on the east side where the base of the slope was washed by a stream flowing into the Feugh. This stream was incorporated into the lower defensive circuit. The excavation of the surviving summit area and of the four base trenches has provided more information concerning the natural shape of the mound, and the work required to transform it into the Castlehill. Originally, the summit consisted of a central plateau of concreted natural sand and gravel some 50 cm higher than the lower step, producing a two-tiered effect. The edges of this natural platform were regularized by scarping and the surfaces of both steps roughly levelled. The edge of the platform (65) was then cut into by the construction slot (260). Of the surviving summit area, the deepest levelling deposits were found on the north edge beyond the platform. These mixed sand and gravels could have come from the digging of the ditch, from material removed during scarping of the sides or from flattening elsewhere on the summit. Primary base levelling was found in the northern area to a thickness of 50 cm, although the original quantity may have been twice as thick, with a considerable amount lost by erosion and slippage prior to the deposition of sealing layers. The distance between the primary northern summit lip and the internal platform base was 3.5 m, and was marked by the line of post-pits for palisade A (illus 3). No added material was required on the raised platform.

In the northern area the natural mound top and upper slope were sealed by a brown/black, coarse sandy loam (464). This had the appearance of a buried soil and was sampled for pollen (illus 6, appendix 10 and fiche 4: E2). This deposit was sealed by a thicker layer of brown/black sand/silt with many stones and a high percentage of charcoal, ash and other organic material (462). It was sealed by levelling material and it is likely that work on the platform and the hall was executed prior to the finishing of the northern summit edge (illus 5).

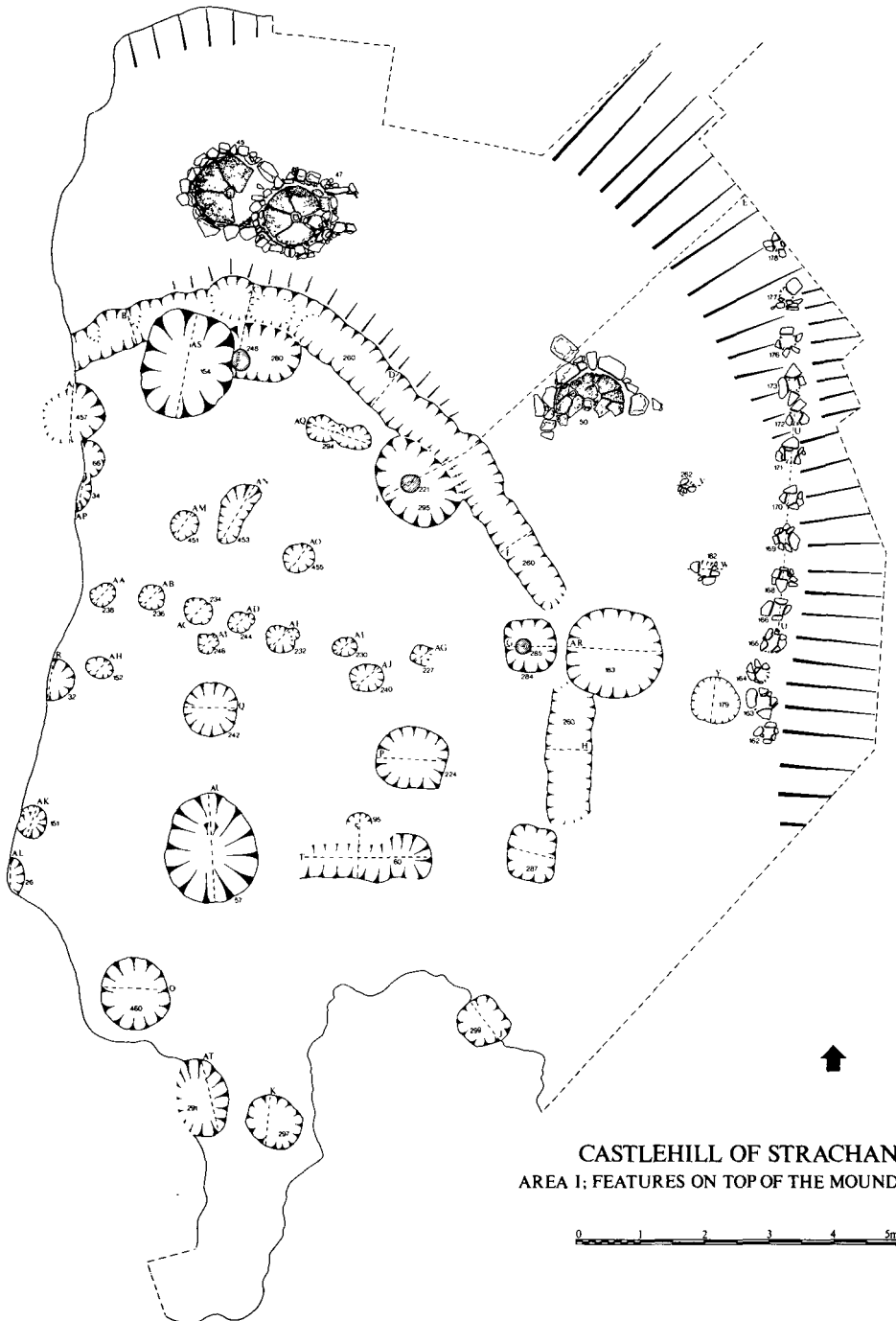
At the same time other parts of the summit were built up with tips of sand and gravel. On the SE summit lip two such tips of sterile material with some medium sized water-washed pebbles were identified to the E of the platform. The eastern gravel (156) nearest the edge appeared to have been dumped first and then used as a dumping place for the western tip (157), building up the area between this and the platform base (65). Evidence was found in the north-western area for the use of turf as a



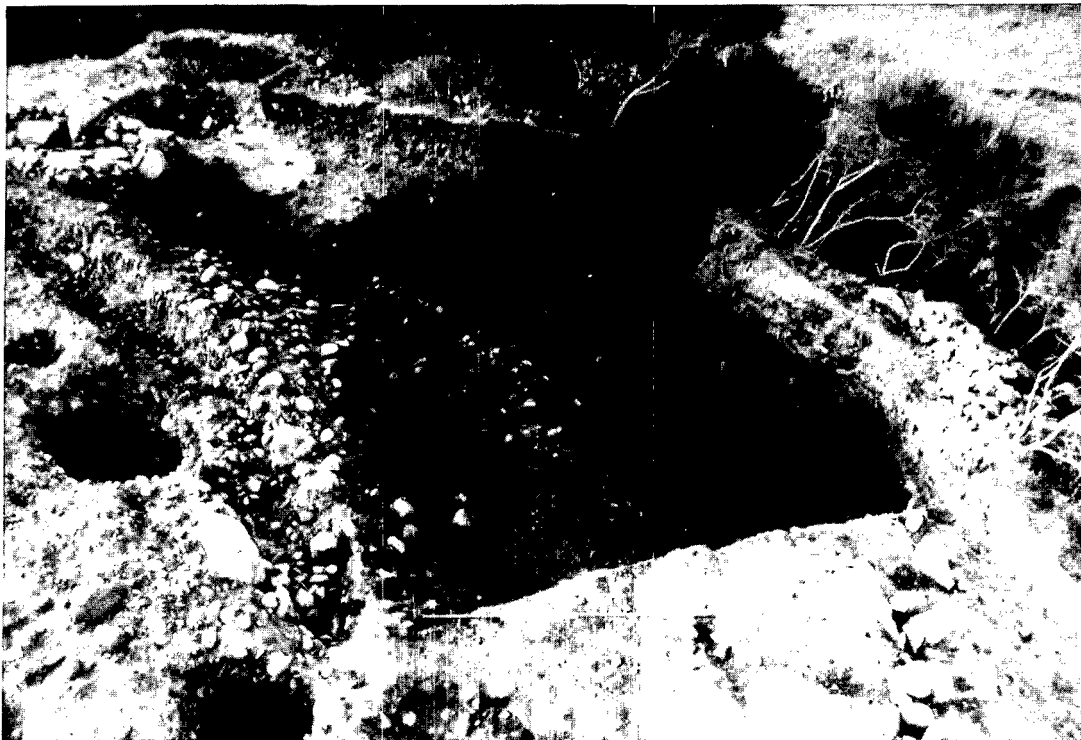
ILLUS 3 Excavated summit, phases I and II

consolidating agent within the looser imported gravels. Patches of grey and yellow clay throughout the levelling material suggest the use of this as an aid to consolidation (64). In this case an 11 cm thick band of very dark grey, silty loam was observed sandwiched between spreads of levelling material in the eroded quarry section (40).

In the main northern running section cut through the mound, the early occupation deposit (462) was immediately sealed by a very deep and extensive levelling deposit (463) (illus 6). This would have originally been a more substantial layer, a great deal of which was lost down the motte slope as



ILLUS 4 Summit section lines



ILLUS 5 NE summit lip, with buried soil 464 sealed by mound make-up and later midden. Platform 65 with hall slot 260 and backing posts

recorded in the section (466). This represents the main, primary heightening and flattening of the northern summit area, and was rapidly sealed by thick midden deposits in the form of two layers of brown/black silt with sand.

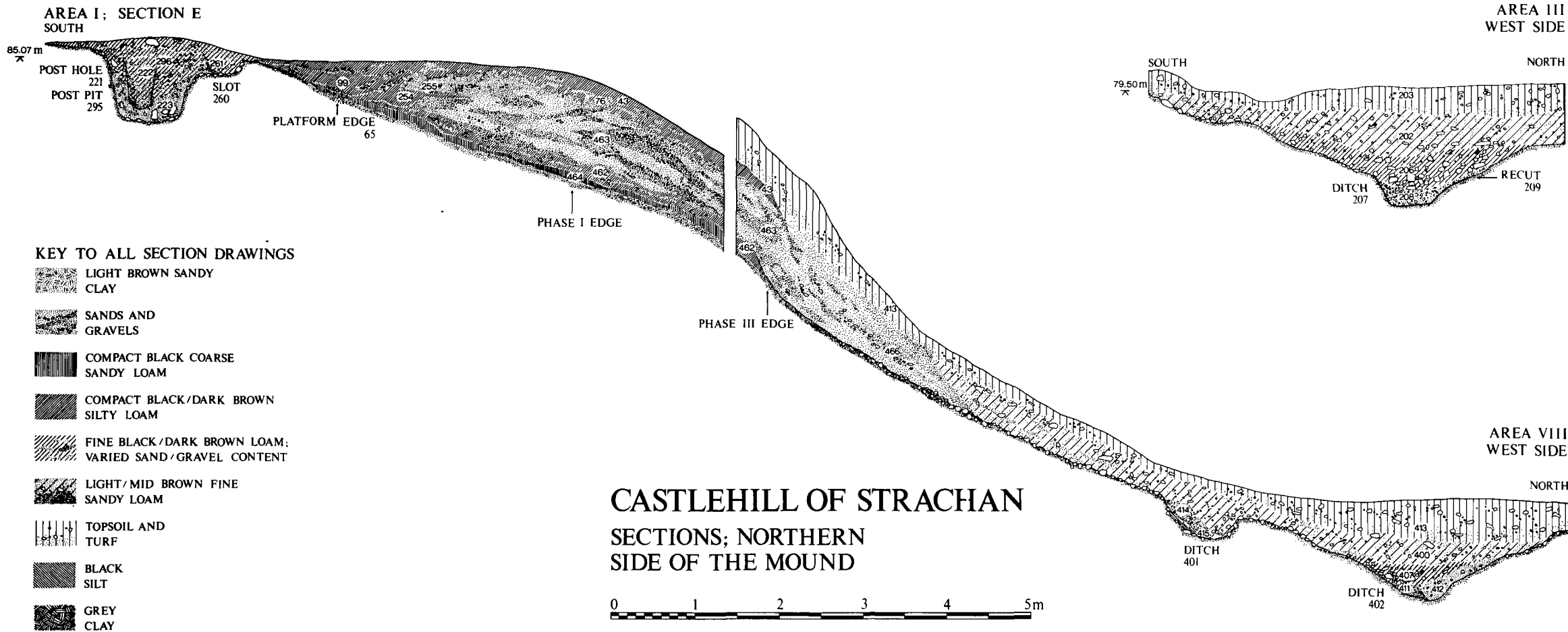
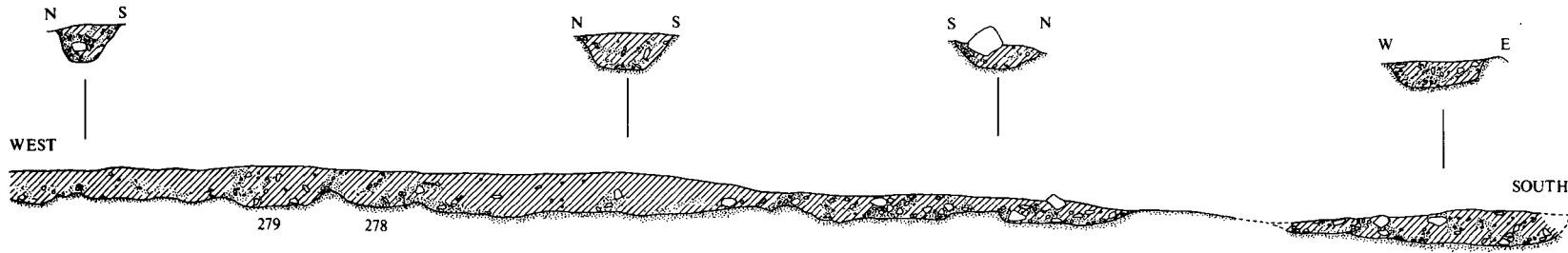
The first main, northern occupation layer was found sealing the newly laid gravels and curving around the entire surviving length of the base of the raised platform. This layer consisted of two separable deposits of very dark sand and silt which in places interleaved. It was narrowest in the NW, measuring 55 cm in width, becoming gradually wider, reaching a maximum width to the E of 1.5 m at which point it began to fade out (illus 6). The upper layer (99) with the lower (254) were found to a combined depth of 30 cm, presumably representing the deposition of rubbish and general occupation material over an unknown period of time.

In the northern area, the northern edge of the upper deposit (99) butted with another dump of imported orange/brown sand and gravel levelling material (49/255). This would have added extra height around the summit lip, following the expected slumping and settling of the original added gravels, and it was through this that the sockets for the primary palisade were cut. This represents the single most important defensive feature of the castle and would have been erected very soon after the occupation of the mound, unless some form of unidentified, temporary earthwork encircled the summit lip. No such feature was found, suggesting that all the levelling and occupation deposits described above were built up in a timescale of months rather than years.

The remains of palisade A consisted of a curving line of four large post-pits situated 2.5 m from the base of the platform (see table 5, feature group 7, fiche 4: C5, for dimensions). there was an average distance of 4.5 m between each of these pits. The two northern post-pits were larger than the two eastern ones. The profile of the pit to the NW (270) was unusual owing to the stepped nature of the southern side (see illus 8, section L), which the post possibly rested against. Following the circuit to

CASTLEHILL OF STRACHAN

LONGITUDINAL SECTION OF SLOT 260 WITH CROSS SECTIONS



ILLUS 6 Summit slot 260 sections, area III ditch and main section E through summit, mound and base features



ILLUS 7 Palisade A post-pits 270 and 185

the E, the second pit possessed even, sloping sides with a 10 cm thick grey clay deposit on the base (185). This clay was very similar in nature to that used as consolidating material within the piled-up gravels, and in this case was probably used as a bedding for the post base (see illus 8, section M; illus 7).

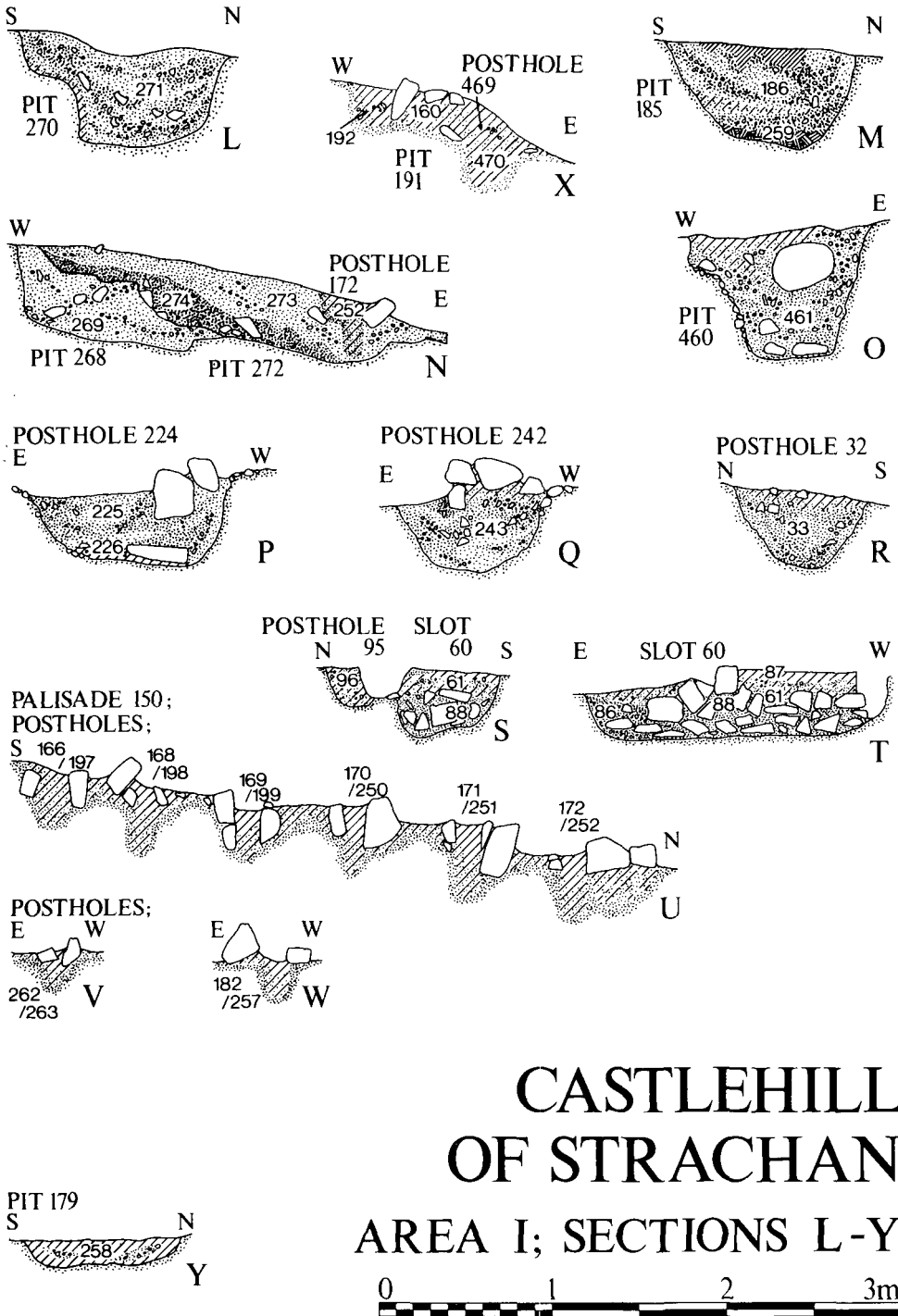
The third post-pit (268) was smaller, with a base which sloped down to the S, although this may have been distortion caused by recent slippage (see illus 8, section N). The fourth pit (191) was similar in size to the last and contained a contemporary posthole (469) cut through the east side of the pit base (see illus 8, section X). This was 33 cm in diameter and probably represents the size of the post held by the pit backfilling. None of the other palisade pits produced evidence of post sizes.

The surviving pits probably represent one-quarter of a continuous circuit of large posts, breached only by the entrance to the S (see discussion below). These fixtures could have acted to support and anchor infill walling between each main post, presumably in the form of horizontal planking. They would have provided enough strength to support a walkway near the top of a barrier possibly 4 m in height. No corroborative evidence for this, however, was found.

Timber Hall (illus 3)

As soon as the minimum amount of scarping, heaping-up and levelling of the mound was completed, the construction of a substantial timber building proceeded. The remains of the constructional features were found cut into the pre-existing natural gravel platform (65). The plan of the timber building may have been predetermined to an extent by the shape of the raised, solid plateau.

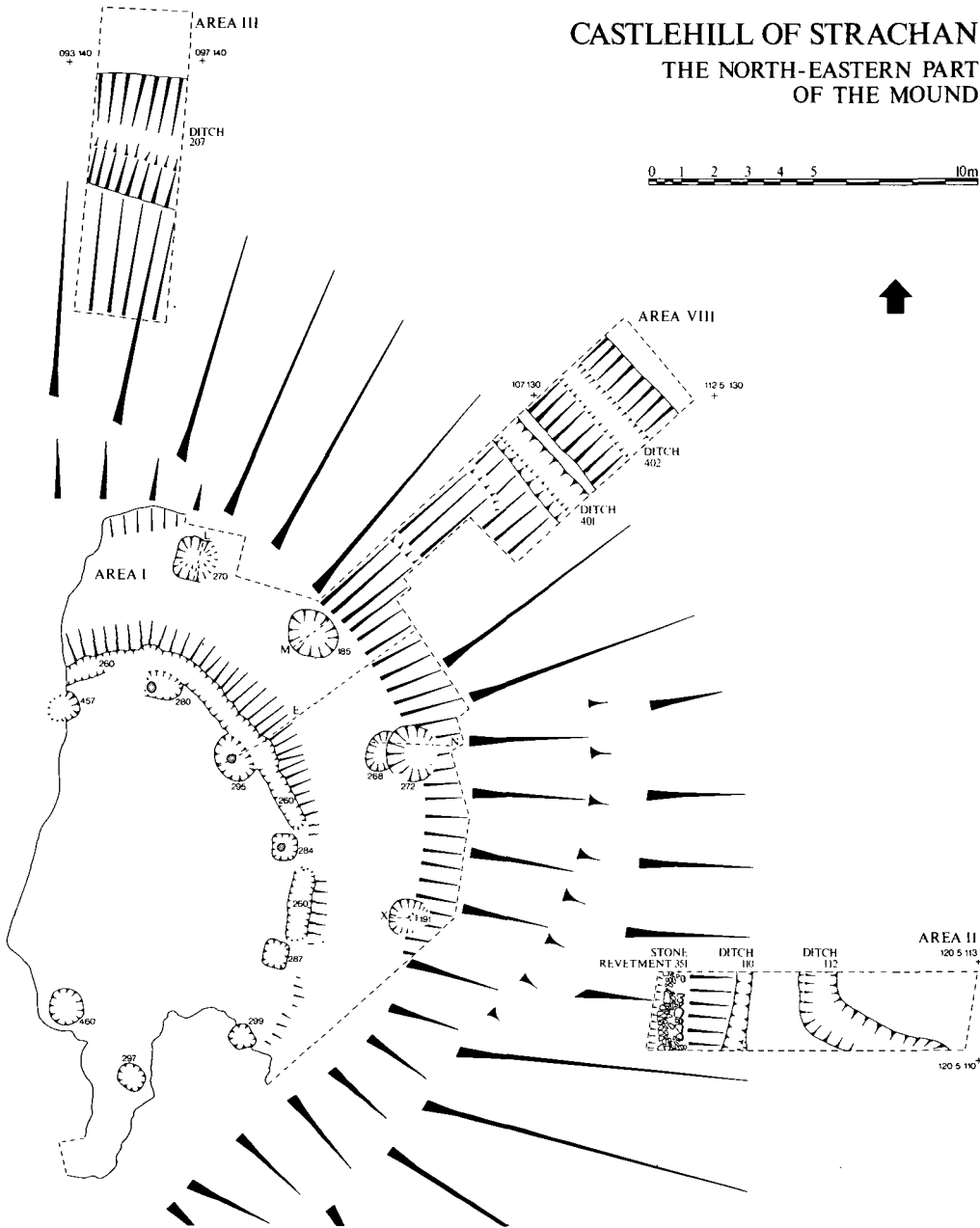
The inside edge of the sub-circular platform was cut into, and followed by, a fairly uniform slot (260) which survived to an average depth of 30 cm, and to a width of 85 cm (illus 6 & 10). This was generally U-shaped in profile and was found intact in the north and north-eastern parts of the summit (illus 11, sections D, F, H). The western half was destroyed by recent gravel extraction, while the south and south-eastern portions were seriously disturbed by centuries of erosion and rabbit-burrowing. The



CASTLEHILL OF STRACHAN AREA I; SECTIONS L-Y

ILLUS 8 Summit sections L-Y

CASTLEHILL OF STRACHAN
THE NORTH-EASTERN PART
OF THE MOUND



ILLUS 9 Motte with excavated ditch areas, later phase, section lines for palisade A

slot butt-ended following an uninterrupted curve from the W of 9.4 m, where there was a gap of 1.2 m, after which it was found in a short, straight length of 2.2 m. It butt-ended again at this point, and the presumed continuation was destroyed by erosion.

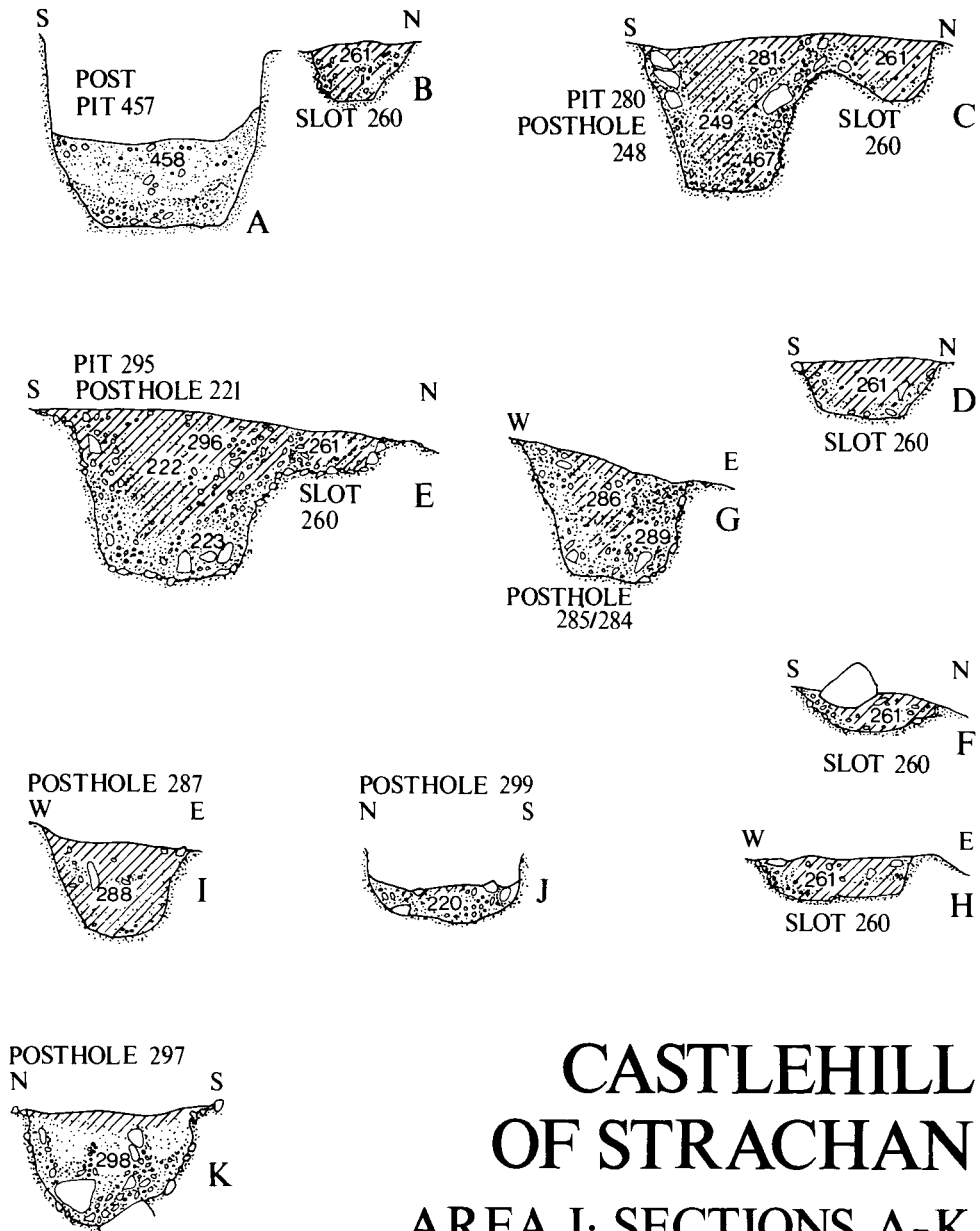
This construction feature was backed by a series of contemporary post-pits, cut through the top of the platform, exactly 3 m apart (see illus 11, sections A, B, C, E, G, I, J, K). The only feature



ILLUS 10 Slot 260 during excavation with stone packing

remains surviving within the slot consisted of two oval, shallow depressions in the north-west end of the slot base (278, 279). Three even more fragmentary impressions were also recorded here. It is possible that these represent impressions left by upright posts within the slot. The slot was backed by a series of post-pits, seven of which survived cut through the top of the platform exactly 3 m apart, contemporary with the cutting of the slot. These can be divided into two types (dimensions on table 5, group 7, fiche 4: C5).

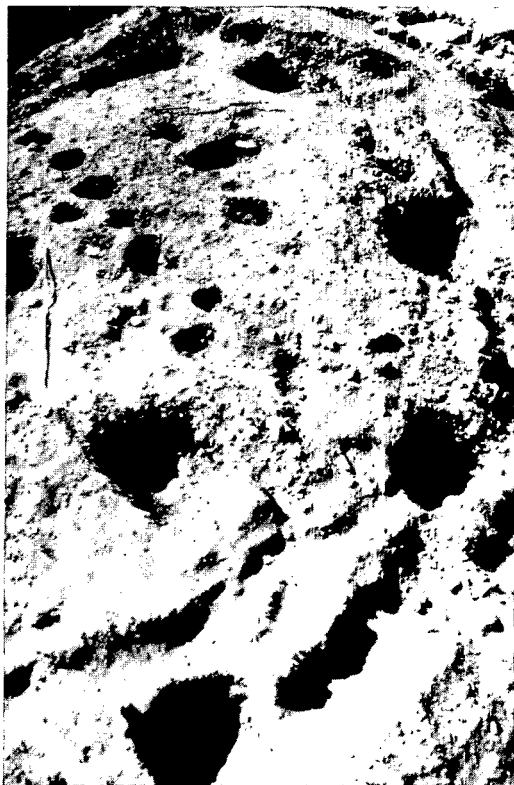
The three most northern post-pits (457, 280, 295) were oval in plan, fairly straight-sided, about 1 m in depth, and generally larger than the others. When half sectioned, the dark sand/silt with gravel fillings of the second and third post-pits revealed traces of the timber post which once stood upright in each of these features these post-pipes (248, 221) were filled with softer dark grey/brown sand/silt,



CASTLEHILL OF STRACHAN AREA I; SECTIONS A-K



ILLUS 11 Summit sections A-H



ILLUS 12 North and north-east summit excavated primary hall slot, backing posts, and partition 1

and associated with medium stones. The latter may represent the remains of stone packing around the posts (illus 12). This circuit continues S with four smaller, sub-rectangular post-pits (284, 287, 299, 297) to a point due S of the most northern of the larger pits. Continuation of these features to the SW is certain, but could not be followed due to destruction by erosion. The pits in this second group were on average 80 cm in width and 55 cm in depth, and of very regular shape and size. Another post-pipe ghost (285) was found in the most northern post-pit (284), 20 cm shallower than the previous examples.

At this stage, the overall plan of the building begins to emerge, with the long axis running approximately N-S. The continuous and interrupted lengths of construction trench holding some form of earthfast, timber uprights, were backed by large individual, structural posts, presumably supporting the roof.

The surviving surface of the building interior was peppered with a variety of cut features. The majority were associated with this primary phase of construction (dimensions on table 5, group 2, fiche 4: C3).

Three post-pits were found on the line of the proposed N-S long axis (illus 8, sections O, Q; illus 11, section C). The first and largest of these (460) was found 3 m to the NW of the most southerly of the surviving wall-posts (297). Like all these structural features, this sub-circular post-pit was cut into the compacted, natural gravel platform (65). This 70 cm deep cut was well within the building, being some 3 m N of the south end, and would have contained an internal main support, in the form of an upright timber with a probable diameter of 50 cm. Next in line to the N was a post-pit for the central timber (242). This circular cut was situated 5.5 m S of the main northern post-pit (280) and matches the proposed position of the opposite end of the building when mirrored to the S, now unfortunately lost by erosion.

On either side of the central post-pit were two similar cuts (illus 8, sections P, R). The post-pit to the W (32) was discovered in the eroded quarry face before the excavation and was situated 2.5 m from the central cut. This was matched to the E by a larger, sub-circular post-pit (224). All these internal main supports were cut to a depth of just less than 50 cm, while the smaller uprights and partition posts described below were on average just over 20 cm in depth.

Immediately 1.5 m to the N of the E-W axis, and on the same alignment, was a single line of seven similarly sized oval and circular postholes (228, 236, 234, 244, 232, 230, 227) associated with two others off the line, just to the S (246, 240) (illus 13). This line may originally have contained another three or four posts on the destroyed west side of the motte summit. To the E, this line terminated with a small, oval posthole (227), leaving a gap of 1.5 m between that posthole and the external wall-post (284) to the E. It is likely that the latter represents a doorway, through the E end of a partition, into the northern third of the building.

Separated by this division (partition 1), the northern floor area was cut into by two double, and two single small postholes. The first of these double cuts (453) was situated on the N-S axis, 3 m N of the central post-pit. The shallow nature of the northern, broader part, only 15 cm in depth, compared to the smaller deeper southern part, suggests that the former may simply be a construction feature stemming from the time of the insertion of the post. Similarly, this may also be true of the second double cut (294) situated 2 m NE of the first, just to the S of the construction slot. This was aligned E-W, with the deeper, circular part to the E.

The first double cut was flanked, one on each side, by the single postholes. Both of these were approximately 30 cm in depth, and of a comparable size to the larger postholes in partition 1. The western cut (451) was 70 cm from the double cut, while the eastern one (455) was further distant at 1.2 m. The fill of the latter contained some medium stones, which may have been packing material. This group of cuts held earth-fast uprights, of no more than 20 cm diameter, serving either as internal supports for a first floor, or else thrust directly to the roof.

Floor surfaces

Some traces of redeposited natural sand and gravel construction spreads were found on the enhanced natural platform (65), pre-dating the building. No occupation deposits, however, were found which could be readily associated with the immediate first phase post-construction of the hall.

Phase II Outer circuit c 1255–65 (illus 3)

Within a few years of the palisade construction, the small post-pit in the NE (268) was replaced and cut by a much larger post-pit (272) slightly further to the E. It seems likely that this represents a repair to palisade A, which may possibly have started to slip down the added gravel on the east summit.

The only occupation deposit associated with this phase in the external area was found in a 1.3 m wide band running N-S, sealing the east platform base. This was a dark sand/silt layer (158) which was just above the early occupation spread (99/254), and of a very similar nature, suggesting the continuing deposition of domestic rubbish and midden material.

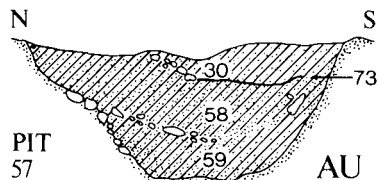
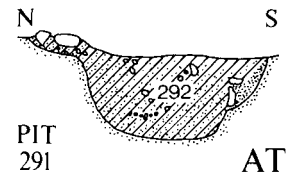
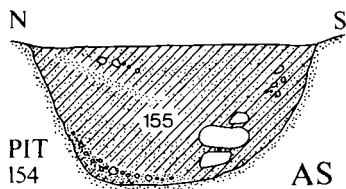
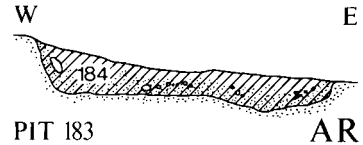
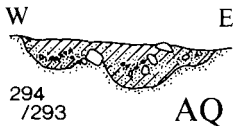
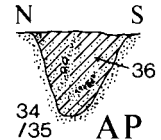
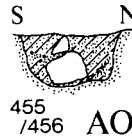
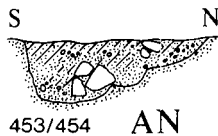
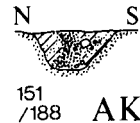
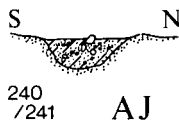
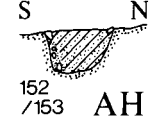
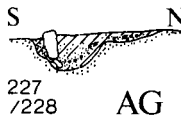
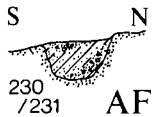
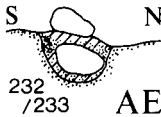
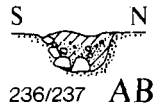
Primary hall occupation

The only traces of a timber floor were found sealing the sand and gravel spreads, which appear to have served as a floor surface in the construction phase. These traces consisted of a 90 cm by 70 cm concentration of long, thin strips of burnt wood in the form of charcoal (459), situated just to the S of the east end of partition 1. No other area produced this deposit, and survival in this case can be explained by the number of fairly large stones, from the destruction of the subsequent floor (81, 82), which directly sealed the timber remains. The latter were split and shattered, with the appearance of plank fragments.

The floor which replaced this was found covering most of the internal area, to a depth of 4 cm. On the eastern half of the internal area this deposit (82) consisted of dark brown/orange silt and sand with many small pebbles. The western floor (81/153) was similar although even more hard-packed with a great many pebbles and medium sized stones.

Two areas of intense burning were found on this floor within the building. The first (468) was found in the SW, and consisted of a thin irregular spread, 1 m E-W, of reddened gravel and shattered

POSTHOLES:



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AREA I; SECTIONS AA-AU



ILLUS 13 Summit sections AA-AU

small stones. The second area (83) was much more extensive, situated just to the N of the central part of partition 1. This deposit was also irregular and patchy, measuring 2 m E-W by 1 m wide. In places the burnt and fused red sand survived to a depth of 10 to 15 cm. The great depth alone suggests that this probable hearth was in continuous use throughout the subsequent phases.

Phase III Construction of palisade B and the first stone furnace c 1265-85 (illus 15)

The start of this period was marked by a further heaping-up of gravel on the north side of the summit beyond the line of palisade A (76). This deposit survived to a depth of 20 cm and was not found on the east side. It is likely that this construction work was taking place at the same time as the dismantling of the primary palisade based on the large, single post-pits. The fillings of these were immediately cut by a closely spaced line of many posts in individual stone settings, which followed the same line as palisade A on the east side, but continuing further to the N cut through the added gravels described here (76). The northern return of this later circuit to the W was lost owing to the substantial erosion and slippage which occurred on this side during the post-desertion period. If the curve is projected around to the W, it is possible to extend the earlier north summit lip by approximately 3 m. It is important to note that the original curve of the north end of the excavated later palisade, now altered by slippage, would have been greater.

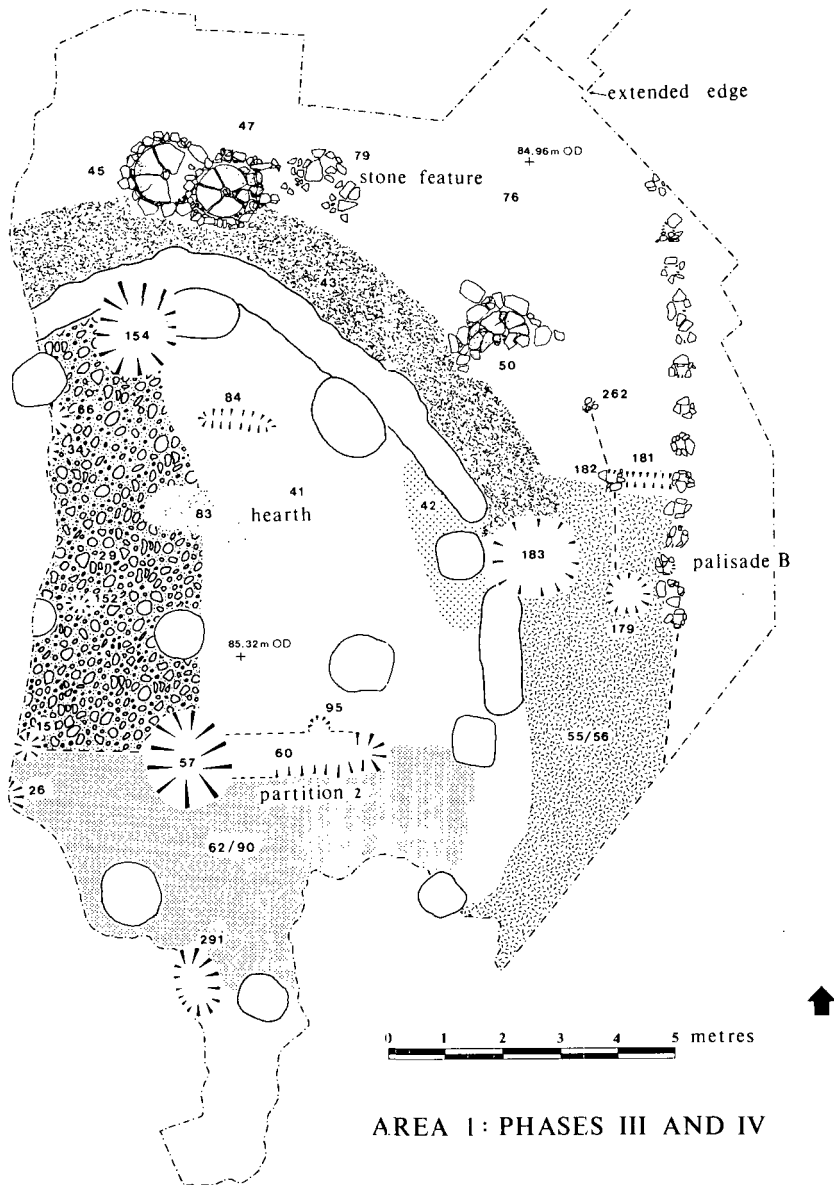
The eastern line of this second palisade consisted of 14 post settings over a length of 7.5 m, with an average gap of 50 cm, centre to centre, between the settings (illus 14). The method of construction was to cut a number of roughly 35 cm square holes through the summit lip to an average depth of about 40 cm. Next, the 20 cm to 30 cm square timbers were placed in these sockets, and packing-stone wedges hammered in (illus 8, section U). Palisade B may have been stronger than the earlier version and would certainly have been strong enough to support a wall-walk if required. Tentative evidence for this was found in the form of two postholes and one post-pit, and a linear slot adjacent to the east palisade (dimensions on table 5, group 8, fiche 4: C5). The 1 m long beam slot (181) adjoined the palisade to the S of the two settings (182) and the very nature of this setting and the other (262),



ILLUS 14 Detail of individual stone-wedged post-settings in palisade B

situated 1.3 m to the N, clearly links this group to palisade B. Exactly what form this above-ground structure took is open to speculation, possibly a framed support and ladder for a jettied parapet. This structure can then be explained as a small observation tower, if no such continuous parapet existed. Precisely what function was served by the upright contained in the associated post-pit to the S of this is unclear (179).

An even more enigmatic shallow post-pit (183) was found 1.7 m NW of this, cutting into the edge of the hall platform. This was of insufficient depth to contain the diameter of post normally associated with such a large pit and may represent an alteration to the building exterior.



AREA 1: PHASES III AND IV

ILLUS 15 Excavated summit, phases III and IV: palisade B and furnaces

The earliest surviving stone-built oven/furnace (50) was found adjacent to the north-east point of the hall-platform. It is likely that at least one similar structure existed in another part of the outer circuit in the preceding phases. This example was constructed with a base formed of a 20 cm thick fragmented granite millstone, 1 m in diameter, complete with a small stone plugging the central hole. The base was enclosed by a single surviving course of partially shaped granite blocks, only slightly heat-granulated compared to the millstone base. Originally there may have been a number of freestone courses. The function of this structure, with a fire on the base and flue probably on the east side, is unclear although it has been suggested that it may have been associated with an industrial process rather than a purely domestic one.

Timber hall

Few structural changes were made to the hall after the initial construction was completed. The only slight alteration found in this phase was the addition of a very shallow slot (84) situated 1 m SW of the double posthole (294) found in the north-east corner of the building (illus 15). This slot was 10 cm deep, 40 cm wide and 1.3 m long, aligned E-W. It is possible that this was the socket for a sill-beam which supported a partition/ceiling support. Indeed, if the beam was longer, simply resting on the floor surface, this slot may represent the remains of another partition, further dividing the northern part of the hall, on a line parallel with the original partition. The evidence for this, however, is slight.

No new occupation or floor surfaces were found relating to this period.



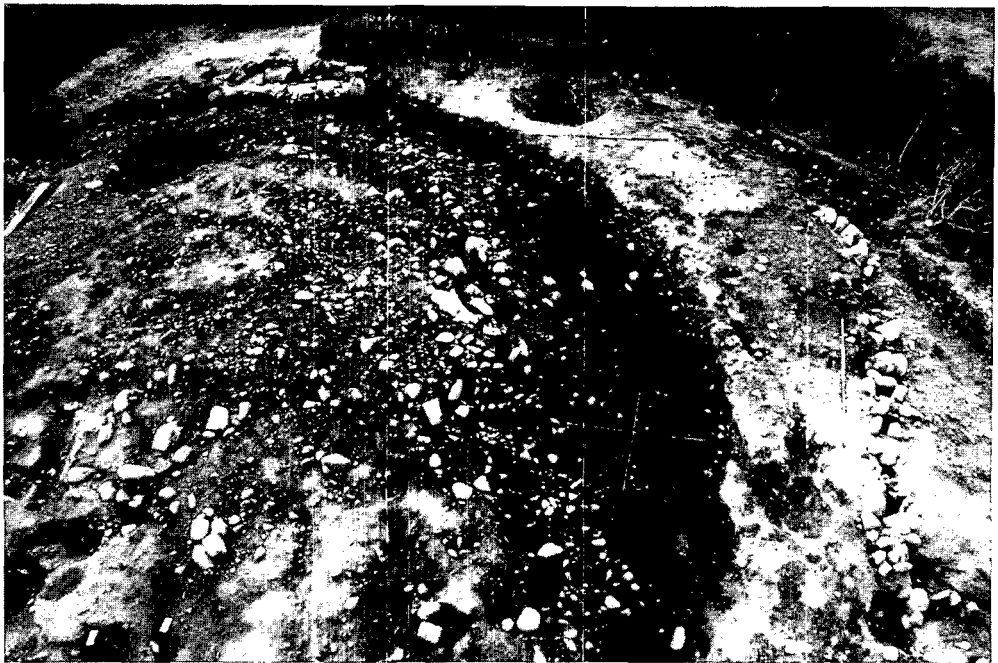
ILLUS 16 Furnaces 45 and 47

Phase IV Late thirteenth century

After what may have been only a few years, the furnace in the preceding phase was replaced by an identical model (45) situated at the northern base of the platform, some 6.5 m NW of the first. This was found in a better state of preservation, with a more complete millstone base of the same diameter as the first. Situated 2.5 m E of this and resting on the same level as the furnace was an associated spread of medium and large, partially shaped, granite blocks (79). These may have originated from the demolition of the oven furnaces, although it is more likely that they represent a dismantled structure, possibly a water cistern used in conjunction with the third furnace (illus 16).

This second structure was soon replaced by the third, constructed on top of the flue of the former. This furnace (47) was constructed in exactly the same way as the others, with a slightly smaller fragmented millstone base, surrounded by three surviving courses of freestone granite standing to a height of 60 cm. The flue continued this stonework into an E-facing, parallel-sided channel 35 cm in length and 40 cm in width. It was partially floored with heat-cracked granite blocks, with none surviving where the fire would have been at the east end. No associated structural features were found, such as stakeholes for branches forming a clay-dome framework. Apart from the evidence of burning on the stones, hardly any associated burnt sediments were found, indicating that the furnaces were regularly and thoroughly cleaned out.

All three furnaces were based in, and surrounded by, occupation/midden material which had been continually deposited on the outer summit, originating in phase I (99/254) and added to in the succeeding phase (158). Interpretation of these deposits was complicated by the likelihood that they would have been regularly cleaned-off and thrown down the motte scarp. A greater quantity of the midden therefore survived from this later period, containing a large amount of domestic refuse such as discarded ceramics, animal bone, iron implements and bronze objects. Evidence for metalworking was also found in the midden and is discussed in the technological report. The main midden deposit (43) was uniformly spread over the outer summit area to the N and NE, with the northern extent being around the flue-mouth of the third furnace, curving around to the slot (181) associated with palisade B. It varied from 5 cm to 35 cm in thickness, consisting of brown/black silt with a high organic content



ILLUS 17 Midden 43, palisade B with excavated slot 260 and hall interior

(illus 17). The colour was partly derived from a high content of crushed charcoal, from both domestic fires and the furnaces. An identical deposit found on the north-eastern motte slope represents the same material flung beyond the palisade, and running down into the ditch (illus 6), section E). This sealed the earliest furnace and partially sealed the second one which was replaced contemporaneously with the building-up of the midden. Many lumps of daub in the form of burnt clay with grooved and flat impressions were found in this layer.

Further around the summit to the SE, contemporary with the midden, was found an occupation deposit covering the area between the platform and the palisade. This layer was a light brown silt with some areas of small pebbles and larger rubble (55/56).

Timber hall

This appears to have been the only phase of significant structural alteration within the timber hall, during which time three large post-pits were cut through the earlier surfaces (dimensions on table 5, group 4, fiche 4: C4). These would have contained additional uprights needed to strengthen the possible upper floor and/or roof. One was placed to the S of the centre, and one each at the north and south ends (illus 13, sections AT, AU, AS).

The first of these post-pits (291) was situated 1 m W of the most southerly surviving external wall backing post (297). This large, oval feature had slightly sloping sides and was 50 cm in depth. Situated 4 m due N of this was inserted an even larger oval post-pit, also with sloping sides, cut to a depth of 68 cm (57). The lower filling layer was an unusually moist, dark brown silt (59), quite unlike the vast majority of feature fillings which were brown silt/sands with gravel. Such a layer formed the upper filling (58) which in turn was sealed by a lens of charcoal (73), almost certainly deposited during the destruction of the site.

The northern strengthening post was placed in a post-pit (154) which cut away the western side of the post-pit for the earlier main northern support (280), while leaving the post in place. This large, sub-rectangular post-pit was 74 cm deep, with slightly sloping sides, filled with black sand and silt (155). The colour was derived from a large powdered-charcoal content. Contained within this were five large granite boulders, the largest measuring 35 cm by 15 cm by 20 cm, which appeared to be the remains of either packing, or a base-pad, for the timber post.

This phase witnessed the replacement of the primary E–W division (partition 1) by a group of features set on a parallel line within the southern part of the building (partition 2, feature group 4; fiche 4: C4). The occupation layer associated with phase IV (layer 41, see below) sealed the earlier partition postholes, thus providing the evidence for their removal and replacement. Similarly, this later partition cut through the earlier floor level (layer 81, see phase II above). These elements were, from W to E: the substantial internal slot (60) with a small posthole (95), the central repair post-pit (57), and a medium-sized western posthole (151).

This parallel-sided slot (60) was aligned E–W with a flat bottom, and survived in a 2 m length, 70 cm in width. Originally this may well have been an adjunct to the upright within post-pit 57 although this could not be proved, as modern rabbit burrowing had totally destroyed the area between this post-pit and the surviving west end of the slot. The primary slot filling consisted of many medium sized, angular granite blocks (88) of a very similar nature to those used in the oven walls. The lowest stones appeared to be set, unmortared, in the base of the slot, although the upper stones were lying in a heap which suggested collapse. These survived in places as five courses of collapse, with some fire-reddening. Their general nature was quite unlike the naturally occurring large water-worn pebbles from elsewhere on the summit. It is possible that they represent the partially above-ground strengthening of a supportive element or screen. These were sealed by two upper filling layers (61, 87) of the usual mixed sand/silt, with a considerable quantity of charcoal.

Part of the original north edge of the slot was lost, and in this area the remains of a small circular posthole were found (95). This originally contained a post which formed part of the structure based in the slot. The top filling of the posthole was identical to that of the slot (96 and 61). Also apparently related to this E–W line was a sub-circular posthole (151) found in the eroded quarry section, 3 m W of the central post-pit (57). The filling of this feature (188) also contained a considerable quantity of large charcoal fragments.

A number of minor alterations were also made in this phase, represented by four postholes in feature group 6, all of which were found in or near the eroded west quarry face. The first of these (26) was situated less than 1 m S from the previously described posthole (151) and was circular in plan. The

average dimensions of these postholes were 55 cm in diameter by 40 cm in depth. Most contained charcoal and remains of stone packing (illus 13).

Situated 3.5 m N of this was an oval posthole (152), adjacent to the western post-pit in the axial E-W line (32). Three metres N of this were the other two postholes in this group (34 and 66) which formed a double set backing on to the most north-westerly primary wall-post (457).

A small number of occupation/floor deposits were found in association with the removal of the first partition, the insertion of the second partition, and with the general use of the interior immediately after the re-modelling of the late thirteenth century (illus 15).

The larger northern area was covered by an extensive light red/brown clay/silt with very few stones (41) strongly contrasted with a linear band situated against the inside of the east wall. This deposit of small, medium and large stones, similar to the collapse within slot 60, was 3 m N-S, by 60 cm wide and mixed with a dark brown silt (42). This may represent the remains of a structure, such as a bench or wall repair, abutting the east wall. The extensive layer was not found on the western side, where there was a 3 m wide band of grey/brown silt with densely packed pebbles, which measured from 2 cm to 5 cm in length (29). Unlike the other layers, this deposit was not delineated by the second partition but spread through the complete surviving N-S length of the interior.

The remaining southern compartment was covered by a grey/brown, loamy silt with pebbles and gravel (62, 90). This contained a small spread of lighter brown silt/clay (89) situated in the extreme south area.

Phase V Destruction and desertion, early fourteenth century

A considerable body of evidence from all parts of the motte indicates desertion of the site in the early fourteenth century, preceded by accidental or deliberate destruction. There is no evidence for re-occupation after this date.

In the outer circuit, evidence for the dismantling and destruction of palisade B was found in the form of three burnt post fragments just to the W of the line of the palisade (52, 53, 63). The largest of these was situated in the eastern area aligned N-S, measuring 60 cm in length by 11 cm in width, and 8 cm in depth (52). All the unburnt posts would appear to have been removed from their sockets after the fire and reused elsewhere, possibly in nearby homesteads. Some of the exposed clay deposits used as consolidation material in both the east (25) and west sides (64) of the mound had been exposed to severe firing, producing a powdery white-yellow colour. This was presumably caused by contact with burnt timber fragments which had fallen down the mound side. The rubble removed from inside the third furnace represents its destruction at the end of this phase.

Timber hall

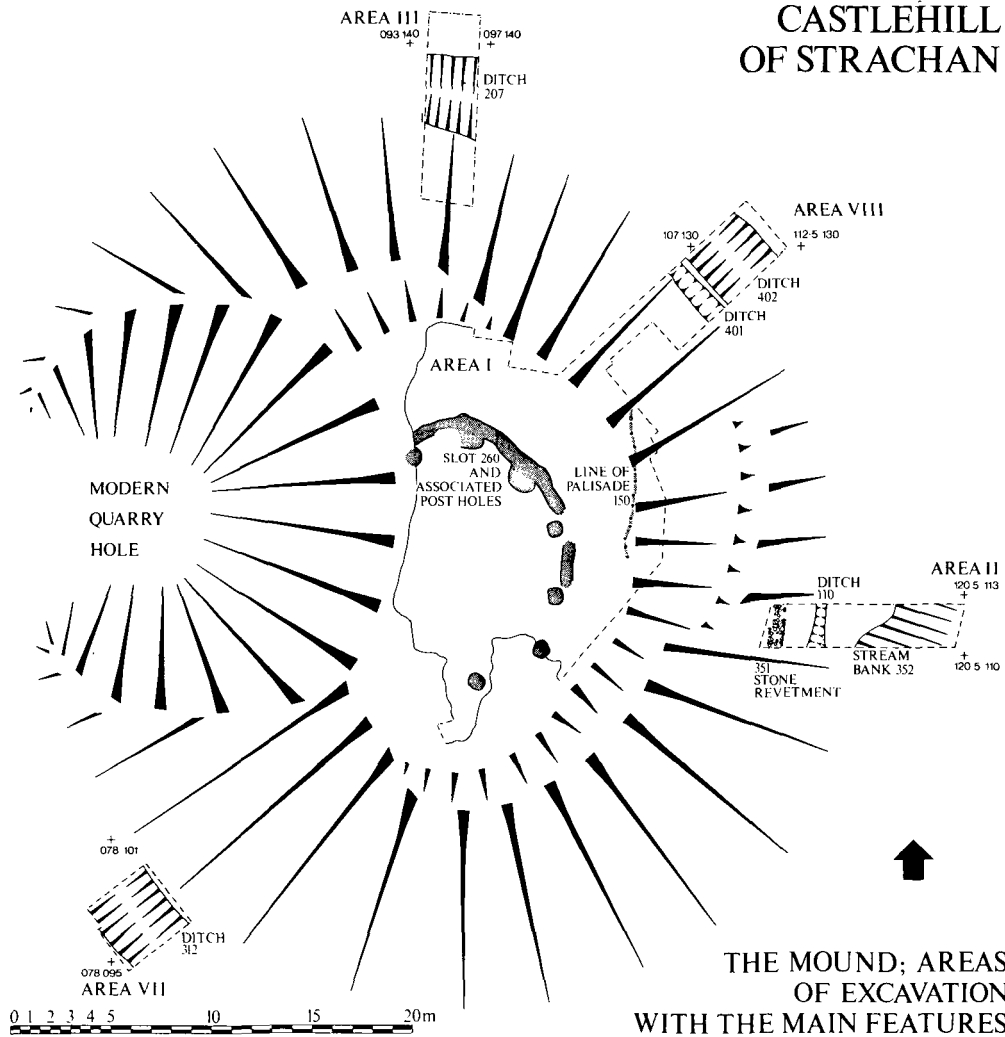
Most of the postholes and post-pits contained charcoal, including fragments of burnt timbers. A number of these features produced evidence of the dismantling of the hall, particularly the presence of the stonework collapsed into slot 60. Also, the post-pipes found in at least four of the post-pits represent the backfilled position of uprights removed during this period. The earlier general layer (62) in the south-east corner of the excavated hall was sealed by a small spread (92) of highly burnt, red, sand and gravel. These spreads and the earlier floors within and outside the building were sealed by a composite layer (5/8) of brown humic silt which is interpreted as the formation of a natural soil and the growth of a scrubby turf-layer.

SECTION 2

Mound base (illus 18 & 19)

The existence of some form of defensive ditch is to be expected on northern motte sites, although at Strachan no above-ground traces of such an earthwork survived. Area II produced a series of linear features, and three other areas were also excavated (Areas III, VII, VIII) revealing a fairly substantial quarry ditch. In addition, a resistivity survey was conducted over the field between the motte and the existing stream to the N. It had been previously suggested that a bailey-ward existed here, a theory reinforced by the relatively dry, raised nature of the land. After the northern 30 m square was surveyed at 1 m intervals, the resultant plot of anomalies was used to position four test trenches (Areas IV, VI, IX, X). These proved that the anomalies were produced by variations in the natural gravel, and no archaeological features were identified.

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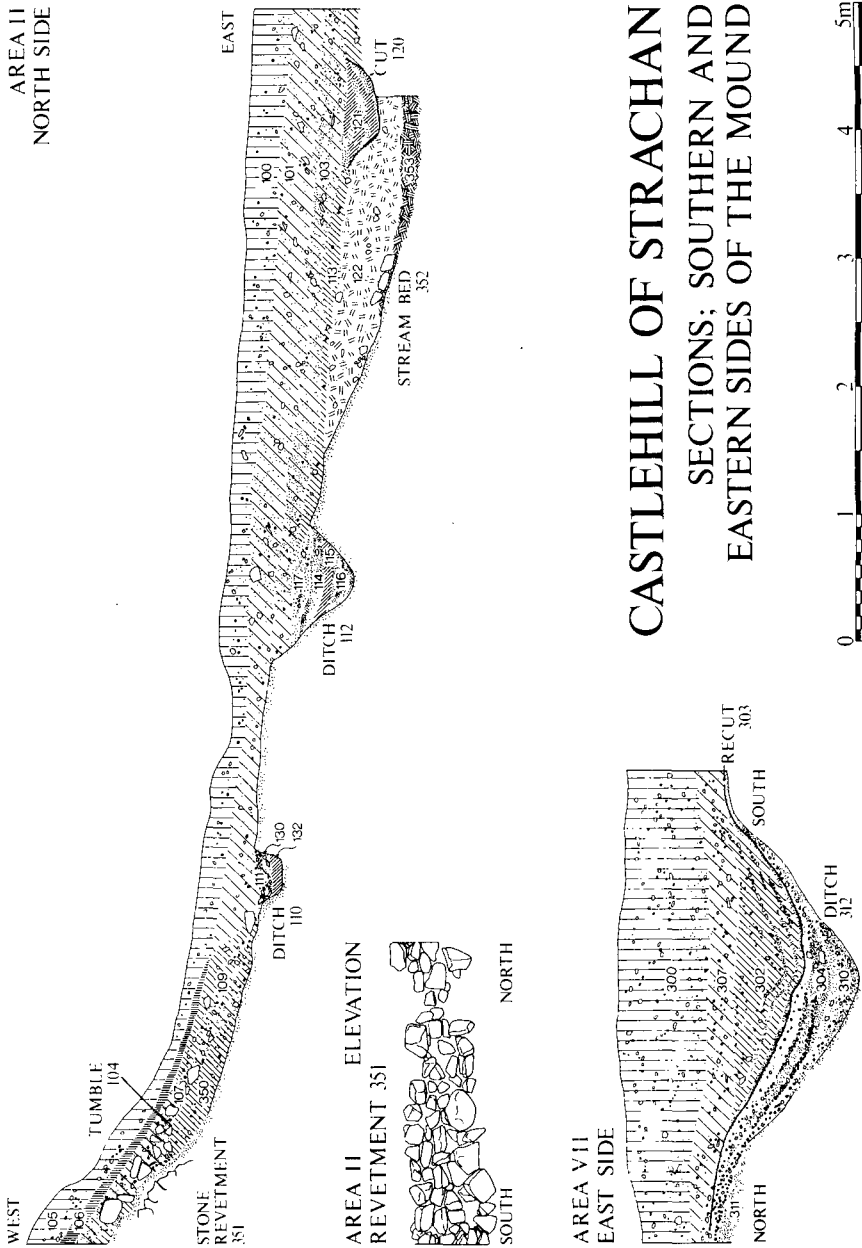
ILLUS 18 Complete motte with excavated ditch areas, early phase

Southern causeway (area V)

A natural raised bank, 8 m wide, was recorded to the S of the motte base, running NE-SW and cut by a modern drainage feature. This would have acted as a causeway affording access to the motte from a ford over the River Feugh. The causeway stood above the marsh which surrounded most of the castle (illus 2).

Phase I Areas II, III, VII, VIII; stream, ditch and revetment

Mention has already been made of the tributary of the River Feugh which flowed around the east side of the motte base. The western bank (352) of this stream was found at the east end of this trench, although the original width is unknown. Indeed, this natural feature was partially silted-up when the motte was under construction with layers of clay/sand sealing a bed of puddled grey/orange clay (353). Interestingly, when this clay was test-fired with a considerable amount of sand filler, it proved to be of a similar nature to the mass of fired clay lumps from the summit. Although partially silted, this feature



ILLUS 19 Base ditch sections and revetment elevation

was wet enough to provide an effective barrier and was incorporated into the ditch circuit constructed elsewhere around the motte base.

The single, V-shaped ditch was excavated at three points: at the N, NE, and SW. Width was constant at around 3.5 m with a variable depth from between 1.2 to 1.9 m below modern ground level, deepest in Area VII to the SW. It is likely that this combined ditch/stream circuit was bridged somewhere on the south side affording access up or around the scarp.

Set just over 1 m to the W of the stream bank in Area II was found a 45 cm wide linear cut with near vertical sides, running N-S (110). At the north end it was narrower and more shallow, with a deeper, shelved cut sloping to the S. This fact, combined with the subsequent silting pattern described below, indicates that this channel was a drainage feature possibly carrying waste liquid from the northern summit into the ditch/stream. No sign of this shallow ditch was found in the other areas, and no features were found to indicate that it served to support any form of palisade.



ILLUS 20 Area III ditch with revetment collapse

Granite freestone, found in the lower fillings of all three excavated ditch lengths, originated from a collapsed revetment wall built around most, if not all, of the motte base (illus 20). Only in Area II did the wall survive, where it was found standing to a height of 70 cm in five courses (351), set 1 m to the W of the inner drainage cut. The amount of associated tumble suggested that the wall was originally over 1 m in height, and may have been further heightened with turf to contain the loose, heaped-up gravel behind. The large stones found in Area VIII on the slope above the inner ditch were also remains of this wall. After settling and consolidation had taken place, the revetment would not have been required and appears to have been allowed to fall into disrepair before the motte was abandoned (illus 21).

The only evidence for phase I ditch silting came from Area VII where both sides and the base were covered in a thin deposit of weathered natural mixed with some organic material (305/310). This was thickest in the ditch bottom, measuring 25 cm in depth.

Contemporary with this, at the end of the first phase, there was evidence to suggest that the small drainage cut (110) in Area II was almost completely silted up, with material carried in the channel and washed down from the revetment. Three separate deposits were identified, the earliest a grey/black silt (132), sealed by a layer of orange/brown silt-sand (130) which in turn was sealed by a grey/black clay-silt deposit (111). The absence of large stones indicated that the revetment was intact at this stage.

Phase II Second drainage ditch

By this time the eastern stream bed was almost completely silted-up owing to natural processes accelerated by the disturbances of the motte construction. This area, however, was presumably still boggy enough to negate the need for a defensive ditch, although it was dry enough in the clayey stream bank for the construction of a larger drainage feature (112). This same cut was found running parallel with the inside of the main ditch in Area VIII, where it measured 1.1 m in width by 45 cm in depth. It is likely that it ran around the motte base into Area II where it curves sharply away to the SE with approximately the same dimensions. Similar to the earlier cut, which it replaced, the gradient dropped from N to S (illus 22).



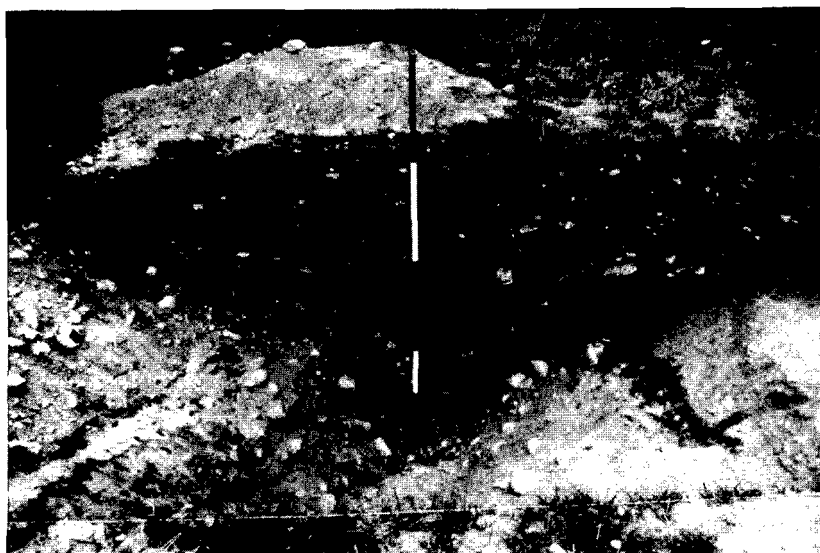
ILLUS 21 Area II revetment wall with drainage cut 110 in foreground



ILLUS 22 Area VIII section running from mound summit, through drainage cut 401 and main ditch 402

Phase III Ditch silting and recuts

Within a few years the second drainage ditch had filled up to an average depth of about 20 cm with two distinctive silting layers. The earliest of these was an orange sand deposit (116/127), sealed by a grey silt sand (115/126), both spread evenly along the base. The silting pattern was quite different in the northern excavated length of this cut in Area VIII, where deposits were found only on the southern



ILLUS 23 Area III ditch with recut slot 209 in base

side, that is, the side open to slip from the mound. The earliest of these deposits contained a fair proportion of organic material (415).

Similarly it was during this phase that the earliest silts were deposited in the main ditch in this area (402). The earliest also appeared to have slipped or been washed down from the S (411) and was sealed by a large deposit on the north side and base (412). Something similar had probably already occurred to the NW in the main ditch length (207) excavated in Area III. The silting here was not found, however, as it had been removed at this time by a recut, observed in profile as a U-shaped slot running along the very bottom (209). This recut was much sharper on the south side and measured about 1 m in width (illus 23). This recut was matched in Area VII (312), although in this case it failed to remove all the earlier silting but simply cut unevenly into the second main silting layer (304) deposited earlier in this phase.

Phase IV

During this phase the greatest amount of surviving activity occurred in Area II. The secondary drainage ditch became almost completely choked with two silting deposits (114, 117) rendering it ineffective, although still partially open in Area VIII. It seems likely that the revetment wall was falling into disrepair, as a thick slip layer of dark loam (350) was found partially sealing and abutting the wall to the E.

At the same time a similar, thinner layer (113) was deposited over the earlier stream bank, cut through by a shallow sloping-sided cut at its east end (120). This measured 80 cm in width by 26 cm in depth, filled with black silt (121), and may represent a posthole forming part of an unknown structure. Contemporary with this in Area III, the recut slot became almost completely filled with a gradually deposited silting layer (208). Similar layers had also built up within the ditch in Areas VII and VIII, although the defensive feature, at this point, was still deep enough to serve its purpose.

Phase V Slighting and backfilling

Early in this phase, the upright within the area of the stream bank (120) was removed and a further, general silting layer (103) built up, also filling what was left of the smaller ditch. Shortly after, the wall was demolished, represented in Area II by a substantial layer of stone blocks in a sand-silt matrix (104/107).

Wall tumble was found in the three ditch areas, rapidly sealed in each case by one, or a series of massive tip layers, almost completely filling the ditch. These deposits contained a large amount of charcoal possibly derived from shattered burnt timbers, originating from the destruction of the motte summit. The origin of the backfilled clayey matrices is unclear, although they may have come from a slighted bank or from the motte slope. In terms of finds' quantity, these were some of the most productive contexts on the site (206/205/200/201; 302/307; 407/400).

Phase VI Post-destruction

From the fourteenth century to the present day, considerable quantities of sediments were deposited on top of the backfilled ditch and other basal features. These derived from mound slippage and from ploughsoil dragged up against the mound, the greatest depth of which was found in Area II.

DISCUSSION

Various water channels of the Feugh, combined with areas of marsh, created an excellent system of natural defences around the motté. During a drier season, at the time of construction, a defensive ditch was dug around the western two-thirds of the lower circuit, incorporating an open stream to the E. There is some evidence, in the form of the posthole found in phase IV, for a possible sluice, constructed when this stream had partially silted up. Other Scottish mottes have also produced evidence for sluices and controlled canalization of local water sources to form wet moats. A good example is the elaborate system still visible to the NE of the Doune of

Invernochy (Simpson 1936, 174) (illus 2). Remain of a likely sluice were also identified during the excavation of the ditch at Roberton, Clydesdale (Haggarty & Tabraham 1982, 56). At Lumphanan, water was channelled into the ditch by a cut through the counterscarp bank (Talbot 1980, 249).

No outer bank remnant was found and there is certainly none visible, although the clay content in the deliberate backfilling is consistent with the material removed from the stream-bed and used elsewhere on the motte. It is possible that this clay represents the remains of an original counterscarp thrown down during the slighting. The ditch was cleaned out, and recut, although the primary silting and ineffective cleaning-out of the southern ditch can probably be attributed to the fact that this side was the least susceptible to attack. Consequently it was here that the entrance up the motte slope appears to have been sited.

The negative results of the resistivity survey and trial trenches beyond the ditch do not totally preclude the existence of structures in the slightly raised area to the N. These may have been of a temporary, flimsy nature and would have included enclosures for livestock. The small, cramped summit allowed no space for horses and carts which would also have required stabling. Fiddle-key nails, normally associated with horseshoes, were found (appendix 8).

The construction of the mound, with the primary and secondary palisades, presents few interpretative problems. Some more speculative questions can be posed concerning any native influence on the form of the fortification. As a motte castle, Strachan would not have been alien in the late eleventh-century Normandy landscape; however, it was built some 200 years later and almost 800 miles away, in a land where very different local conditions prevailed. Indeed the form of palisade B could equally be taken from Pictish or earlier defences, as from an Anglo-Norman design. Without corroborative data from other Scottish mottes this question cannot be answered.

It is highly unlikely that Strachan was designed to be re-built in stone following a temporary timber phase. This occurred on only a very few mottes in the north-east, notably Inverness, Aberdeen (both now totally destroyed) and Duffus Castle, Moray. The latter dates from the mid-twelfth century and was re-built in 1300 whilst under English occupation, with a stone tower and curtain walls. These suffered drastically from subsidence, exhibiting how unsuited these artificial gravel mounds were to being built on by any material other than timber (Simpson 1968, 130).

The ovens/furnaces with their reused millstone bases are very important discoveries, and represent a form parallel to examples found at Perth (Blanchard forthcoming), and in a more expected context at Okehampton Castle, Devon, where a bakehouse oven was based with a very large single millstone. They were very well suited for this purpose, although being so bulky would not have been transported far, strengthening the argument for the existence of a mill on the Feugh, near to the motte. It has been strongly argued that these structures are furnaces which supported a work surface or container heated from below. Alternatively they may have been medieval barbecues.

Their presence in this part of the outer circuit, coupled with the multi-phase midden deposit, indicates the domestic and industrial use of this area. Evidence of ferrous metalworking was found in the form of slag, blooms and hammerscale. Lead was used within the building and possibly as solder in metalworking.

Parallels can be drawn between the construction of this motte and with the motte near Roberton, Clydesdale, excavated in 1979 (Haggarty & Tabraham 1982). The Roberton mound was also constructed of heaped-up gravel from a basal quarry ditch. These loose gravels contained 'stitched' bands of light grey clay to prevent slippage, which was also the case at Strachan (*ibid*, 58). A striking parallel can be drawn between the palisade wall at Roberton, constructed of

individual 30 cm square posts in well spaced post-pits around the summit (*ibid*, 55), and with that of palisade A at Strachan. Some evidence was also found of an upper and lower level on the summit, although it is unclear as to whether this represents a central platform as found at Strachan (*ibid*, 58). A similar summit design also existed at the Barton Hill, Kinnaird motte, Perthshire (Stewart & Tabraham 1975, 58–65).

The excavation has produced definite evidence of a rather unusually shaped timber building, measuring 14 m N–S by 12 m E–W. The north end was curved or apsidal and it is possible that the south end also took a similar form, producing a plan akin to that of the 'boat-shaped' buildings found on a number of Viking sites in Britain. No source of influence, however, is being suggested; alternatively it is much more likely that the shape and dimensions of the semi-natural central platform pre-determined the hall plan. (See appendix 1, however, for an alternative interpretation of the building layout.)

A number of questions must now be asked concerning the nature of the building, relating especially to the form of the floors, walls and roof, the number of storeys, heating arrangements, arrangement of the ground-floor space and access, and the position of the main entrance.

The curving, interrupted construction slot probably contained lengths of earth-fast, ground-sills. Uprights keyed into the sills were presumably employed as strengthening for plank or wattle infill walling. It is likely that a proportion of the very large amount of dry clay lumps found in many parts of the summit represent daub remains derived from flat screens made of withies with diameters of 1.2 to 1.5 cm. The wattle panels may also have been set in the sills. Assuming that the building was roughly symmetrical and that the axis is correct, then there may have been another short length of trench between the two south-eastern backing uprights mirrored on the south-western side. The remaining southern circuit would then have been completed by one or more lengths of ditch.

The backing posts presumably supported wall plates for the roof timbers and it is unlikely that these posts would have simply been part of the wall framework. A pitched roof could have been supported by these uprights, and by the internal axial posts consisting of the three large post-pits on the north-south axis (280, 242, 460) and the two east-west pits (32, 224). It seems as though additional internal supports were required at a time less than half a century from the original construction date in the mid-thirteenth century. This date is attested by half of a silver penny of Henry III dated to 1248-50, identified by Dr Caldwell of the National Museum of Antiquities of Scotland (ref 810948). The coin was found in the primary filling of the northern slot, the dating of which is also supported by the ceramic evidence (see Discussion of small finds). Twelve different fabrics were found, all of which are equated with medieval fabrics from Aberdeen. The only non-Scottish import was Scarborough ware.

The roof was covered with organic material, either thatch or else wooden shingles, and may have been provided with some sort of external observation platform with access from the roof space. This introduces the question of height and the number of storeys, if indeed there were more than one.

The term 'hall' has already been used in the building description and is the most applicable, quite possibly taking the form of a two-storey structure. The ground floor would have contained the dining room, as well as space for stores and provisions, and could have provided shelter for a small number of servants and soldiers. Following the example of some medieval halls, the first floor, including the roof space, may have contained the solar or private quarters of the knight or officer in residence. Cooking would have taken place outside this combustible timber hall, possibly to the W of the furnaces. Therefore the hall may have been around 7 m in height. The planked first floor would have rested on joists supported by corbels or sockets in the wall backing

posts. Similarly the main internal supports could have been employed in this manner and if the roof was of an arched, tie-beam construction, these posts would only have served this purpose. A ladder, or wooden steps, could have linked the two floors.

Internal heating arrangements are represented by the two probable hearth areas (83, 468) which both appeared to originate in phase II. The best hearth (83) was situated just to the N of the first partition, and showed signs of having been in use until the destruction of the building. No chimney remains were identified in any part of the site, although the removal of smoke from an internal ground floor fire may not have been provided for. Alternatively braziers may have been employed throughout the building. It is possible that some of the central posts of partition 1 and some of the associated posts just to the N, were in fact part of a central chimney canopy over the hearth described here. Such a structure may have been plastered with some of the daub found throughout the site.

Two phases of ground floor space arrangement have been identified. The first, dating from phase I into phase IV, comprised a main southern room with a smaller chamber occupying the northern curved end. These were divided by partition 1, with internal access apparently afforded by a door or gap in the east end. This position seems to have been kept, when partition 2 replaced the earlier divide, to form a reversed arrangement with the smaller chamber in the S. It is possible, although unlikely, that both partitions existed together to form three ground-floor rooms. This basic arrangement forms a coherent pattern which is somewhat interrupted by the positioning of a number of more irregular postholes and other cut features. Most of these were situated at the north end of the interior and were either sockets for secondary, permanent repair uprights or simply represent scaffolding holes employed during alteration work.

The positioning of the main entrance is more problematic as no evidence for this was found in the surviving part of the hall plan. Therefore the entrance was either on the west or south side, and the evidence points towards the latter. If this was the case, an inverted V-shaped vestibule may have been formed by the gap between the door and the main, known southern support (460) and the two wall posts to either side. Should this gap be walled, an effective windbreak and defensive feature would be created. Defensively it would have been undesirable to provide direct access to the interior. The doorway would have connected with the palisade entrance, also probably on the south end, which provided access to the motte base and exterior by way of a flying bridge or curving stone causeway. Alternatively, wooden steps may have been hammered into the slope, as found at the Bass of Inverurie (Curle 1919, 50) and suggested at Abinger (Hope-Taylor 1950, 24). Parallels are discussed by Dr Murray in the structural report (appendix 1) and it is important to note that this building fits well with the emerging Anglo-Norman tradition of simple, well-built motte superstructures, as found at Barton Hill, Cruggleton and at Peebles. One of the two substantial timber buildings, twelfth century in date, found on the last-named site was circular in plan, with an external diameter of 12.4 m – precisely the same as the reconstructed east–west external width of the Strachan hall (Murray & Ewart 1980, 522–4).

The dietary evidence is rather disappointing owing to the very acidic nature of the sediments, in which only calcined bone survived. This incomplete assemblage would be expected to contain deer bones from venison shot in the Strachan hunting reserve, along with fish caught in the Feugh. The recovered cereals and herbs form an assemblage comparable with those found in recently excavated medieval urban sites (appendices 10–12; fiche 4: E2–G3).

The archaeological record clearly indicates that the site was deliberately slighted and dismantled within 100 years of its construction. Both the historical and ceramic evidence suggests a date towards the end of the first decade of the fourteenth century – possibly early summer 1308 during King Robert's campaigns N of the Mounth.

APPENDIX 1: THE BUILDING: RECONSTRUCTION

Hilary Murray

The phase 1 structural remains consisted of two main elements: an external curvilinear slot, which can be interpreted as the wall line, and an inner line of post-pits which on account of their size and depth can be regarded as the weight-bearing framework (details of all the features are in the excavator's report and on table 5 (fiche 4: C3).

Reconstruction of the plan must depend on the weight-bearing posts rather than on the potentially more variable wall line. The post-pits were at regular centres of c 3 m, but can only be compared accurately in the three examples where post-pipes survive (248, 221, 285); the variations between the two surviving spacings being only c 0.10 m. Assuming this regularity to have been part of a systematic layout it is possible to suggest a circular plan based on a diameter of just over 11 m (457–297). Only post-pit 299 would have been set slightly back from the circumference of such a circle and all the post-pits were spaced at 30° apart, radiating from the centre point. Not only does this plan account for all the structural features, but it also displays some regularity in the layout and construction of internal features, such as the phase I partition (partition 1) and the three post-pits parallel and to the S of it (224, 242, 32). A reconstructed extension of partition 1 towards the W shows that it would bear a similar relationship to a post on the west side that it bears to post-pit 284 on the east side. Moreover, assuming that partition posts 240 and 246 were partition wall supports, and allowing a third such support to the W at the same spacing, an interesting degree of symmetry is achieved (illus 3). It is worth noting that both the partition and the row of posts to the S of it extend at right-angles to the entrance position proposed by the excavator.

There are possible problems concerning this reconstruction: the west side of the building would appear to be close to the mound edge, but, apart from the recent quarrying, erosion has distorted the original curve of the mound on this side and this difficulty may be more apparent than real; secondly it is possible to argue that an oval plan should be adopted on the basis of the slight pointing of the wall slot at the north end beside 280, and the excavator has suggested an oval building with a north–south axis from 280 to 297. Superficially this does fit the line of three presumed repair posts belonging to phase IV, but it does not explain the regularity of the phase I layout since the phase I posts do not form a regular relationship to the 280–297 axial line and the only 'pair' related to the axial line (457 and 295) would be totally offset in their relation to one another. Partition 1 would also be skew to this axis.

In summary, therefore, reconstruction on a circular plan includes all the evidence and explains the regularity of the building, allowing it to be assessed in terms of an efficient standard of carpentry. The problem of the siting of the phase IV repairs may be resolved when possible roof reconstructions are considered.

The use of a circular plan is not unprecedented in early medieval Scotland; for example, a twelfth-century circular building was excavated on Castle Hill, Peebles (Murray & Ewart 1980, 522–4, fig 2). While it might be possible to suggest reflections of a strong Iron Age tradition of circular buildings (such a tradition certainly continued in Ireland up to the tenth century with later examples such as the eleventh-century structure at Lissue: see Lynn 1978), it is also reasonable to explain the plan choice in purely practical terms, as it allowed the maximum use of the mound surface, while offering the least wind resistance on an exposed site.

The roof structure must, as discussed, have depended on the earthfast posts, which were set c 1 m deep, with the surviving post-pipes suggesting timbers in the round (at least at the base), with diameters of c 0.27 to 0.37 m. There was a difference in the excavated depth of the southern post-pits, but these would have been subject to the same erosion which removed the wall slot at this point, suggesting that at the very least 0.30 m (slot depth) has been eroded from the full depth of the post-pits. This would suggest that the southern post-pits were originally similar to those on the north side and no differentiation appears necessary in regard to reconstruction. The depth of the post-pits need not necessarily indicate a particularly tall structure since, not only would the windswept situation have dictated deep foundations, but the soil of the gravelly mound would not have held the posts so firmly as a heavier soil and this would also suggest the need for deep foundations. Earthfast roof-support posts were not unusual at this date in buildings of secondary importance. They were, for example, used in the thirteenth-century kitchen of Weoley Castle (Oswald 1963, 119, fig 43; Smith 1965, 84) and have been found in burgess and lesser dwellings in thirteenth- and fourteenth-century urban contexts in Perth (Murray, Hilary forthcoming) and Aberdeen (Murray, Hilary 1982, 225–6).

The possible variations of roof reconstruction are based on the premise that the posts supported the lower ends of rafters which met at the apex of the roof, over the centre of the building. As there was no real difference between the adjacent posts (observed in the post-pipes at the north end) it would appear that the rafters may all have been of equal size. It is, however, possible that alternate posts held principal rafters with secondary rafters between, or more probably that secondary rafters may have depended on a ring band between the posts.

The rafters would have required bracing and while either radial or cross collars would have been possible (cf Fenton & Walker 1981, 171–3), it is perhaps more probable that cross collars were used, between opposed pairs of rafters. There was no evidence regarding purlins dependent on the rafters but some form of intermediate support would have been necessary. In the absence of evidence to the contrary, it may be assumed that the roof was thatched, possibly on a wattle or turf base. Heather would appear to be the most probable thatching material in this locality. Up until the late-eighteenth century heather thatch was used in the Aberdeenshire uplands as a durable thatch for the prestigious buildings of the laird and the church, a good heather thatch lasting more than 60 years (Callander 1983, 2–3). A roof angle of c 45° would be usual for thatch. The apex height would, of course, have been dependent on the post and wall heights. A post height of c 1.5 m would require an apex at c 7.5 m; a post height of c 2 m would require an apex height of c 8 m. There was no evidence to suggest a much taller building.

If such a reconstruction is accepted it is possible to explain the phase IV post-pits as evidence of a partial re-roofing towards the end of the building's life. It can be suggested that some of the posts and rafters were still sound but that the posts in 280 and 297 required replacement (and possibly others on the west side), perhaps only by the addition of new timbers beside the old. Post-pit 57 can then be regarded as having held a support near the apex, possibly only during the restoration until the rafters had been braced. Several other smaller phase IV post-pits (151, 95, 66) were on the radial lines of the original rafters and could also be assessed as props during repairs or as additional permanent supports.

The wall was apparently structurally separate from the weight-bearing posts, the inner edge of slot 260 being c 0.50 m from the outer edge of the post-profiles. Interpretation of slot 260 suggests that although a series of sectional sill beams could have been adapted to the curvilinear plan, the slot depth of c 0.30 m renders the use of sills unlikely. It would suggest that the sills had been sunk to their full depth, negating the purpose of using sills to avoid the rotting of earthfast wall timbers. Sills of contemporary date from High Street, Perth (Murray, Hilary forthcoming) and in Gallowgate and Broad Street, Aberdeen (Murray, Hilary 1980, 41–43) were either constructed on a low stone foundation, often of only a single course or were laid directly on the contemporary ground surface.

Assuming that sills were not used, the faint traces of post bases in the bottom of the slot at the north end of the building can probably be interpreted as the evidence of earthfast vertical planks, staves or round posts. Wattle is unlikely as not only are the posts of a wattle wall usually rammed into position but also the apparent post spacing in the slot is too close for wattle construction. Very similar slots of mid ninth-century date excavated at Goltho (Beresford 1982, 114–6), c 0.45–0.75 m deep appear to have held timbers up to 0.45 m wide. The use of vertical planks and staves was not uncommon at this period but most examples were set in sills.

There was no evidence regarding jointing between the wall timbers or of the type of jointing used in the roof. If the reconstructed circular plan is accepted then a fair degree of competence is apparent in the layout and a reasonable standard of carpentry could be assumed. However, it seems probable that smaller hunting lodges of this nature would have been erected using local labour and materials and that no excessive degree of sophistication should be expected.

The Strachan building appears, therefore, to have been a very competently constructed but fairly simple structure built to provide basic shelter. In size it was c 110 m² compared to the 18 to 30 m² of the small backlands buildings in medieval Aberdeen (Murray, Hilary 1982, 225) or the 85 m² of the most prestigious (?) burgess building on the High Street site in contemporary Perth (Murray, Hilary forthcoming building 18, phase 2).

APPENDIX 2: HEARTHES AND FURNACES

R M Spearman

The term 'hearth' is used here for any ground fire. A 'furnace' in contrast is any structure constructed for the production and utilization of heat generated by the combustion of fuel, regardless

of the temperature achieved. Both terms avoid any pre-judgement of the process or function involved as is often the case with terms such as 'oven' or 'kiln' (Spearman 1982, 346).

HEARTH CONTEXT 83 PHASE II (illus 3)

This was a substantial area of burnt ground, 2 m by 1 m, with heat damage penetrating to a depth of 0.1–0.15 m. This area of burning was associated with postholes, 232, 234, 236, 244, 451, 453, 455, which although unlikely to have been part of an actual furnace structure may have been the remains of a kitchen area and chimney canopy. If so this construction may have been the source of the baked daub recovered from phase III. (See daub report, appendix 3.)

HEARTH CONTEXT 468 PHASE II (illus 3)

This was another substantial area of burnt ground, 1 m by 0.6 m, with heat damage penetrating to a depth of 0.05 m. No evidence of any superstructure was associated with this feature which appears to be simply a large ground fire presumably for heating and/or cooking.

FURNACES CONTEXTS 45, 47, 50 PHASES III & IV (illus 15)

A sequence of three furnaces, 50, 45 and 47, replaced one another in that order, earliest to latest, with varying degrees of stone robbing and later disturbance. All three appear to be of the same, presumably successful, design and construction. Set at ground level was a c 1 m diameter millstone which formed the base of the structure surrounded by a free-standing drystone wall which survived in places to up to three courses (c 0.5 m). The wall circuit was broken on the east side to allow for a substantial stoke-hole/rake-out. No other constructed flues or vents were apparent in the walling and this access hole must also have provided, along with numerous chinks in the walling, ventilation for the fire. No postholes were associated with these structures. A possible stone built cistern, context 79, was located just E of furnace 47.

The millstone bases were heavily heat damaged, especially at and in their eastern openings. This degree of damage is most unlikely to have been caused by hot ashes falling from fires on a frame or grid above the millstone, and fires set directly on the floor of the furnace are the most probable explanation. The degree of ventilation must have meant that the temperature of the furnace could only be controlled by altering the type and volume of fuel. Only furnace 50 retained large quantities of charcoal in its fill (sample T5), while furnaces 45 and 47 had been substantially cleaned out. The absence of burnt fuel in furnace 45 makes it highly unlikely that the small quantity of baked daub from that fill related to the life of the furnace. (See daub report, appendix 3.)

DISCUSSION OF FURNACES

The surrounding walling of these furnaces is more than would be required for the retention of fuel in a simple cooking fire such as hearths 83 and 468 above. The extent of heat damage makes it unlikely, though, that the walls were for the support of a raised fire. Equally the lack of any postholes, clay bonding or careful stone coursing makes it unlikely that these lengths of circular walling could have formed the base of a stone, or clay and stone, dome for any type of 'oven'. Moreover, heat retention, the main reason for covering a furnace, would have been very poor in such a well ventilated structure. A more probable explanation of these furnaces' superstructure is that it was to support a work surface or container heated from below. No trace of that surface or container survived, or would be expected to survive, as it was most probably of metal and would have been salvaged when the furnace was abandoned. This type of structure is amongst the most basic of furnace designs, with a whole sequence of technically similar features being discovered on the Mill Street, Perth excavations (McGavin pers comm). A medieval illustration of the type is available in the *Oxford History of Technology*, Vol II, fig 333 (Singer & Holmyard *et al* 1956 Brit Mus Roy MS 15.E II and III fol 269). An unfortunate feature of these furnaces is that their work surface, container or chamber has normally been robbed making any interpretation of their function extremely difficult. Considering that in these cases heating was direct with little control of ventilation and therefore temperature, finesse was not involved. In the circumstances supports for cooking vats or cauldrons and even brewing vats are possible explanations. Alternatively, a cooking griddle or medieval barbecue arrangement may be equally likely.

APPENDIX 3: BAKED DAUB SAMPLES

R M Spearman

The text and discussion of the baked daub samples are on fiche 4: C6-11

CONCLUSIONS

This is a collection of fairly small fragments of lightly baked daub. The vast majority was recovered from general layers, and where individual features have been involved (ie context 44 and 99) the quantities were small and their association with daub probably misleading. The phase I hair-tempered daub, while distinct and interesting, is too scarce and fragmentary to suggest any function. The phase III material had received an unusual baking but unfortunately retained little structural evidence. The larger groups of material from phases IV and V/VI contained several small surface fragments which were most probably derived from flat screens or walling. The framework for these structures consisted of withies normally of 12-15 mm diameter. In the case of the phase IV debris these withies had been woven and incorporated with withies of 20 mm diameter as well as dressed timber or stonework. It seems likely, therefore, that the different daubs from phases IV and V/VI represent the demolition of two possibly consecutive buildings.

APPENDIX 4: FERROUS METALWORKING DEBRIS

R M Spearman

INTRODUCTION

Metalworking debris from the site was provisionally sorted by eye and its magnetic characteristics. Selected samples were then analysed by Dr Slater of Glasgow University, Department of Archaeology, using standard X-ray diffraction techniques and her results are incorporated in this report.

DESCRIPTION

Three types of debris were identified:

A Vitreous slag

A vitreous blue-black, slightly porous material with a definite once run or molten toffee appearance, often incorporating fused stones.

B Bloomworking waste

A heavy, slightly vitreous, material with a porous interior and matt grey pimpled exterior. This is the basic fayalite iron-working slag and the category includes both furnace bowls and waste from the preparation of blooms. Four furnace bowls were recovered with diameters of 130-140 mm. These furnace bottoms provide some indication of the minimum number and diameter of the furnaces involved in the original smelting of the blooms. Their size is at the lower end of the Scottish scale but is still within the range found at Elgin, 130-180 mm (Spearman forthcoming), Inverness, 140-220 mm (Spearman 1983, 346-55 and Inverness Archive), and Rannoch Moor, 130-180 mm (Aitken 1970, 194, 196, 200.)

TABLE 1
Distribution of debris by phase and context

Phase	Context	Vitreous slag	Bloomworking	Hammer scale
I	207 (ditch)		2.0 kg	
IV	43 (motte)	0.11 kg	0.2 kg	*
V	200 (ditch)		0.717 kg	
V	201 (ditch)		0.576 kg	
V	206 (ditch)		3.0 kg	
V	306 (ditch)		2.0 kg	
V	400 (ditch)	0.208 kg	1.225 kg	

C Hammer scale

Percussion flakes of iron resulting from the working of hot iron or bloom. These flakes survive with the appearance of iron filings.

DISCUSSION

The process of smelting and working of bloomery iron has three distinct stages:

- (a) The smelting of ore to give blooms of iron, leaving vitreous and fayalite slags.
- (b) The working of blooms to give serviceable iron, leaving bloomworking fayalite slags and hammer scale.
- (c) The smithing of iron to produce wrought iron work, leaving hammer scale.

Although vitreous slag is present amongst the debris, in relation to the amount of bloomworking slag the quantity is so small as to indicate that it, and therefore the blooms as well, had been imported and not produced on the site. The overwhelming majority of the debris is the result of bloomworking and it appears that this, but not the original smelting had been carried out on or near the site. This relative absence of vitreous slags has been noted on all Scottish urban excavations where any quantity of iron-working debris has been recovered, eg Aberdeen, Elgin, Inverness, Perth. It seems to have been a feature of the industry that blooms were transported from the smelters to be refined under perhaps more skilled and acceptable conditions. Hammer scale found on the motte top in phase IV confirms the working of iron on or near the site, but cannot indicate whether this was just bloom or wrought iron working as well. There is no shortage of iron artefacts from the site and under the circumstances the working of bloom into artefacts on or near the site seems very likely. Unfortunately the site of the smithy itself was not located but it may be significant that the only hammer scale recovered was from the motte top.

CONCLUSION

The working of blooms and most probably of wrought iron is clearly indicated by the debris and its association with the site. Two kilogrammes of bloomworking debris were found in a phase I context of the ditch and it would appear that iron working was taking place during the original construction of the motte. The main group of debris is, however, from phases IV and V. Iron working is attested in phase IV with the recovery, in small quantities, of all three types of debris from the motte top. The larger quantity of debris discovered in phase V ditch contexts may represent clearance of debris from the motte top at that time, although continued metalworking cannot be ruled out.

APPENDIX 5: LEAD SAMPLES

R M Spearman

Some 595 g of lead were recovered from five separate contexts across several phases of the site. Sample T16 from context 65 in phase I consisted of a roll of scrap lead as prepared for melting in a small crucible. Sample T20 from context 78 in phase III was a flat irregularly shaped piece of lead punctured with a rectangular hole 6 mm by 3 mm, giving the impression of a lead sealing washer for a tack or nail. The remaining pieces were all of run waste.

To check on the basic composition of these leads Dr Tate of the National Museum of Antiquities of Scotland Laboratories kindly conducted an X-ray fluorescence analysis of them. His results are summarized below. The readings were taken from areas where the surface corrosion had been cleaned off with a scalpel. Dr Tate therefore warns that the compositions calculated have a higher error than would have been the case for flat polished samples and that there is likely to be some inhomogeneity in the metal composition in different areas of the samples.

TABLE 2

Phase	Context	Lab No	Iron (%)	Copper (%)	Lead (%)	Tin (%)	Antimony (%)
I	192	7151	<0.1	0.1	52.6	47.0	<0.1
I	65	7154	<0.1	0.1	99.3	0.4	<0.3
III	78	7150	<0.1	0.2	94.3	3.6	1.8
IV	43	7149	0.7	0.1	98.6	0.5	<0.2
		7153	0.7	0.1	98.6	0.5	<0.2
V	5	7152	<0.1	0.1	99.4	0.4	<0.1

Two different leads therefore appear in phase I, the first (7151) being a heavily tinned lead such as might be used for solder and the second (7154) of more normal composition. The phase III example is the only other slightly anomalous example having a substantially greater proportion of antimony than the others.

APPENDIX 6: ANIMAL REMAINS (fiche 4: C12)

Catherine Smith and G W I Hodgson

The complete text is on fiche 4: C12. The animal remains came from the thirteenth- and fourteenth-century levels of midden deposits in the north summit area of the motte and the backfill of a ditch around the motte base. The bones and teeth come mainly from domestic animals which, in the absence of evidence as to animal based industries, are presumed to be the remains of carcass dressing and of meals. The relative frequencies of species present are estimated by weighing and by counting methods. The material reported on is very friable, having in all cases been burnt and often calcined. The physical condition of the remains is taken as evidence of the destruction of the site by fire rather than of crude cooking procedures.

The samples weighed 1542.2 g (air dry weight). Of these, 451.6 g of bones and teeth were identified as to species. In all, only 36 bones weighing 188.3 g were identified. The bones came from the following species: cattle – 19, sheep – 15, pig – 1, fish – 1. Fragments of single teeth were present: these were mainly husks of enamel which were apparently shattered by heat.

APPENDIX 7: THE POTTERY

J C Murray

INTRODUCTION

Ceramic evidence occurs in five of the six recognized phases of occupation at Strachan. For the purposes of analysis in this report the pottery from phase VI – modern disturbance – has been excluded. A small quantity of pottery (c 150 g) was too abraded to allow accurate classification, and as it probably covered the whole range of fabrics, it has also been excluded from the analysis. A total of 12 fabrics has been identified and described below. As they all equate to fabrics recently published in the pottery report from the medieval excavations in Aberdeen (Murray, J C 1982) the equivalent Aberdeen fabric numbers are given to facilitate reference to, and comparison with, the far more extensive corpus from the Aberdeen sites.

DESCRIPTIONS OF THE FABRICS

Fabric 1

Coarse texture, dark grey, containing moderate to abundant quartz. Aberdeen equivalent, Fabric 2 (Murray, J C 1982, 118).

Fabric 2

Medium coarse texture, in red and grey colours, containing abundant fine to medium quartz. Aberdeen equivalent, Fabric 3 (*ibid*, 118).

Fabric 3

Coarse texture, wholly or partly oxidized, mainly red in colour, containing fine to medium quartz. Grey and brown splashed and trailed glaze on some sherds. Aberdeen equivalent, Fabric 5, 118).

Fabric 4

Medium to fine texture, wholly or partly oxidized, colours ranging from red to light grey, containing sparse to moderate quartz. White slip on some sherds. Aberdeen equivalent, Fabric 6 (*ibid*, 118).

Fabric 5

Medium texture, partly oxidized, buff grey in colour, containing fine to coarse moderate quartz. Aberdeen equivalent, Fabric 7 (*ibid*, 118).

Fabric 6

Very fine texture, wholly or partly oxidized, red to greyish brown in colour. Brown and green glaze on some sherds. Aberdeen equivalent, Fabric 8 (*ibid*, 118).

Fabric 7

Fine texture, partly oxidized, light red to grey in colour, containing sparse fine quartz. Green and greenish brown glaze on some sherds. Aberdeen equivalent, Fabric 9 (*ibid* 119).

Fabric 8

Medium coarse texture, partly oxidized, red brown to dark grey in colour, containing moderate medium coarse quartz. Aberdeen equivalent, Fabric 10 (*ibid*, 119).

Fabric 9

Medium texture, partly oxidized, pinkish white to grey in colour, containing moderate quartz. Splashed green glaze on most sherds. Aberdeen equivalent, Fabric 12 (*ibid*, 119).

Fabric 10

Medium texture, wholly or partly oxidized, pinkish white to dark grey in colour, containing moderate medium to coarse quartz. Aberdeen equivalent, Fabric 13 (*ibid*, 119).

Fabric 11

Medium texture, wholly oxidized, light red in colour, containing moderate fine to medium quartz. Green glaze. Aberdeen equivalent, Fabric 18 (*ibid*, 119). Farmer's phase 1 Scarborough Ware (Farmer 1979).

Fabric 12

Medium fine texture, wholly or partly oxidized, pale brown to light yellow brown, containing sparse to moderate fine quartz. Thick green glaze on some sherds. Aberdeen equivalent, Fabric 19 (Murray, J C 1982, 120). Farmer's phase 2 Scarborough Ware (Farmer 1979).

CATALOGUE OF THE ILLUSTRATED POTTERY (illus 24)

Phase I

1 Jar rim. Fabric 5. traces of internal white slip and possible external trailed glaze: cf Aberdeen (Murray, J C 1982, Ill 75:131). Area I, layer 462.

Phase III

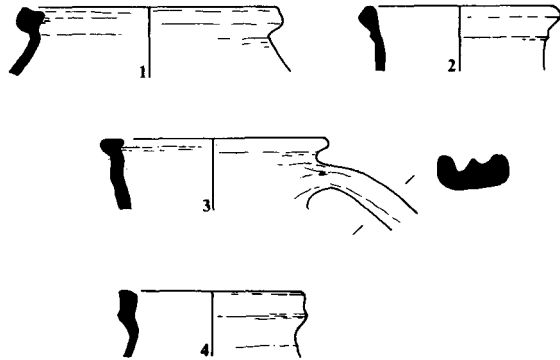
- 2 Jug rim. Fabric 3. Traces of thick external trailed glaze, area VII, layer 304.
- 3 Jug rim and handle. Fabric 3. No trace of glaze. Area VII, layer 304.

Phase IV

- 4 Jug rim. Fabric 4. Traces of external white slip. Area IV, layer 208.

TRENDS IN THE POTTERY

The amount of pottery recovered from the areas excavated is small and although 12 fabrics are present, many, such as fabrics 5 and 11 in phase I are represented by only one sherd.



ILLUS 24 Pottery (scale 1:4)

TABLE 3
Fabric in phase by weight (in grammes)

Phase no Fabric no	I	III	IV	V
1	-	-	-	7
2	-	82	23	152
3	19	-	-	102
4	-	15	135	-
5	36	-	-	-
6	22	53	54	132
7	-	-	33	65
8	-	22	108	7
9	-	4	3	200
10	-	7	7	84
11	5	-	-	5
12	17	12	31	229
Total weight	99	195	394	983

The predominant feature of the fabrics identified is the high incidence of Aberdeen local wares (fabrics 1-8). Two east coast Scottish gritty fabrics are present and the only non-Scottish imported pottery is Scarborough Ware (fabrics 11 and 12). It is difficult to arrive at an accurate estimate of the numbers of vessels retrieved but as the sherds in each fabric in each phase seem to be from one, or as in the larger groups, at most two vessels, a figure somewhere between 20 and 30 would seem reasonable. In terms of vessel function, cooking pots, jars and jugs exist in roughly equal quantities and, with the exception of a fragment of a possible lid, no other vessel types have been recognized.

The sample is not large enough for any definite trends to be observed, but it is worth noting that the Scarborough Wares are present throughout, the predominant type being fabric 12, with only two sherds of fabric 11. A comparison with the trends in the ceramic evidence at 42 St Paul Street, Aberdeen (Murray, J C 1982, table 24, 129) would place the Strachan pottery into a timescale between phases 7 to 10 of the St Paul Street site. This would suggest a date for the Strachan material between the late thirteenth century and the early fourteenth century. Also, the limited range of fabrics and the absence of any imported pottery other than Scarborough Ware would suggest a fairly short period of occupation.

THE POTTERY IN RELATION TO THE SITE

The bulk of the small amount of pottery found at Strachan was retrieved from Area 1, with small amounts from the surrounding ditches.

TABLE 4
Layers containing pottery by phase

Phase I:	39, 111, 192, 207, 254, 462, 463
Phase III:	74, 76, 78, 179, 186, 269, 273, 304
Phase IV:	31, 43, 55, 56, 208
Phase V:	5, 8, 107, 155, 200, 206, 260, 302, 400

From phase I only two sherds were recovered from the ditches in Areas II and III. No pottery occurred in the phase II occupation. In phase III most of the pottery was found in general occupation levels in Area I and, of a handful of sherds recovered from ditch fill in Area VII, one joins to a sherd from Area I and another is undoubtedly part of the same pot, possibly indicating the contemporaneity of these two areas. From phase IV only two sherds were recovered from the ditch fill in Area III. In phase V the trend was reversed. Here, in this destruction phase, the bulk of phase V pottery occurred in the ditch, with a small amount occurring in Area I.

THE POTTERY IN ITS WIDER CONTEXT

In general, the ceramic evidence from Strachan holds no surprises in the context of pottery from a site close to Aberdeen. All the fabrics recognized are present in the Aberdeen material. Scarborough Ware is the only non-Scottish ware imported, but this too is ubiquitous on NE Scottish coastal town excavations and even in inland sites such as Kildrummy Castle (Apted 1963).

The pottery from Strachan (albeit a small assemblage) stresses the relationships that existed between rural and urban communities in the medieval period and is an indication of the need for further excavation on rural sites of this nature.

APPENDIX 8: SMALL FINDS (fiche 4: D1)

H B Duncan and R M Spearman

The artefacts have been divided into five groups according to material and the full catalogues placed on fiche (4:D1). With the exception of nails, each catalogue entry is numbered consecutively and its phase, area location, context number, excavation accession number and SDD lab number are included. The excavated contexts have been grouped into six phases:

- Phase I: c 1250
- Phase II: c 1255–65
- Phase III: c 1265–80
- Phase IV: late thirteenth century
- Phase V: c 1308–1320
- Phase VI: ploughsoil

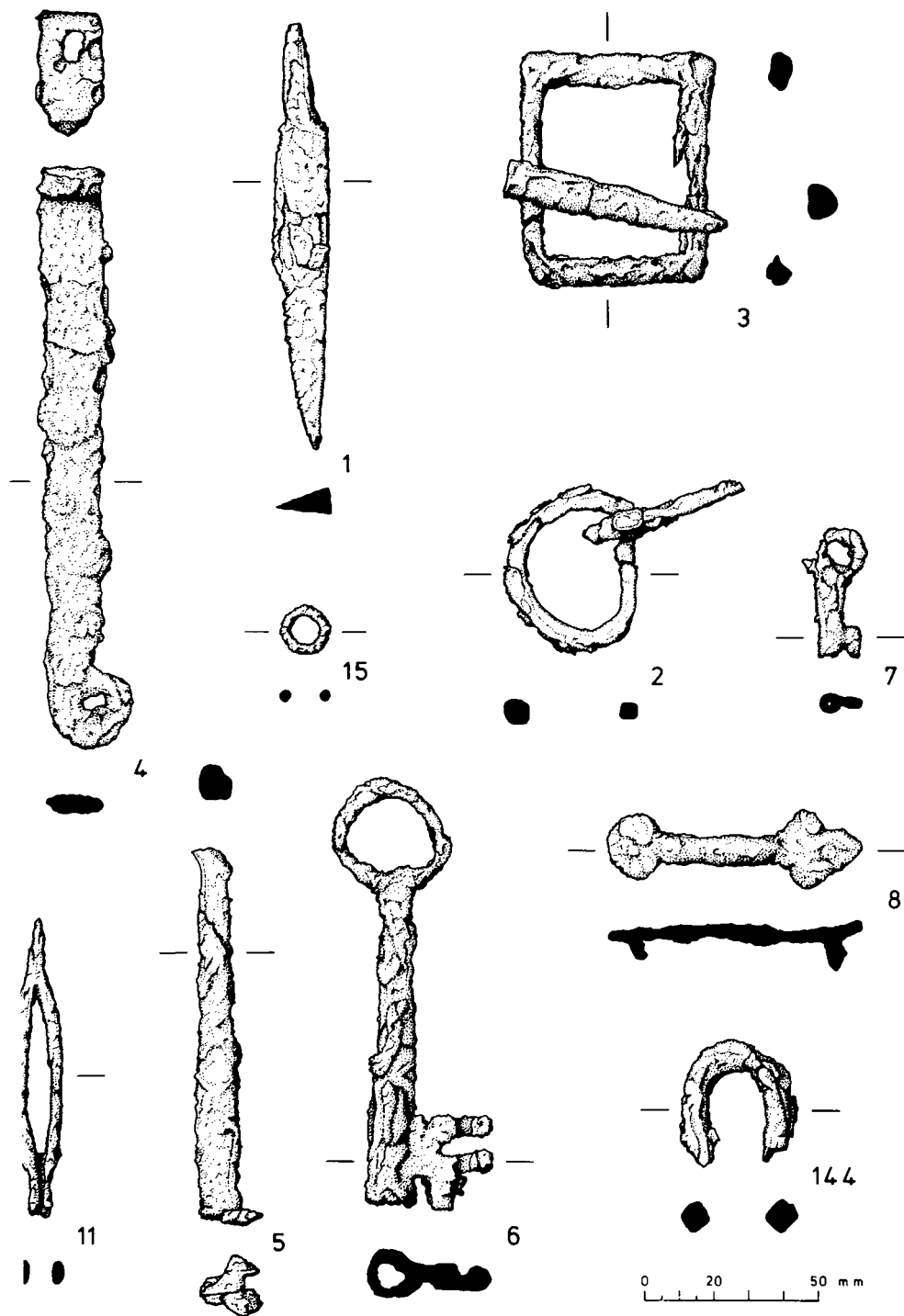
The artefacts are in the City of Aberdeen Art Gallery and Museums; the site archive has been deposited in the National Monuments Record of Scotland, 54 Melville Street, Edinburgh.

DISCUSSION

Knives were used for a variety of purposes, both in domestic activities and perhaps as weapons. No 1 is of the scramasax form but without the characteristic angle half-way down the back of the blade. Tanged knives were usually mounted in wood or bone handles. This type of knife was popular during the early historic period and continued in use with very little alteration into the fifteenth century (LMMC 1975, 51).

Two plain buckles (nos 2, 3) were recovered. The plain buckle, consisting of a single loop, frequently D-shaped or rectangular, and pin is a universal object which permits little close dating. Similar examples to the D-shaped buckle come from early historic sites and are frequently found in medieval contexts (Goodall 1981, fig 59, 2). The larger rectangular shaped buckle may, due to its size, be a harness buckle.

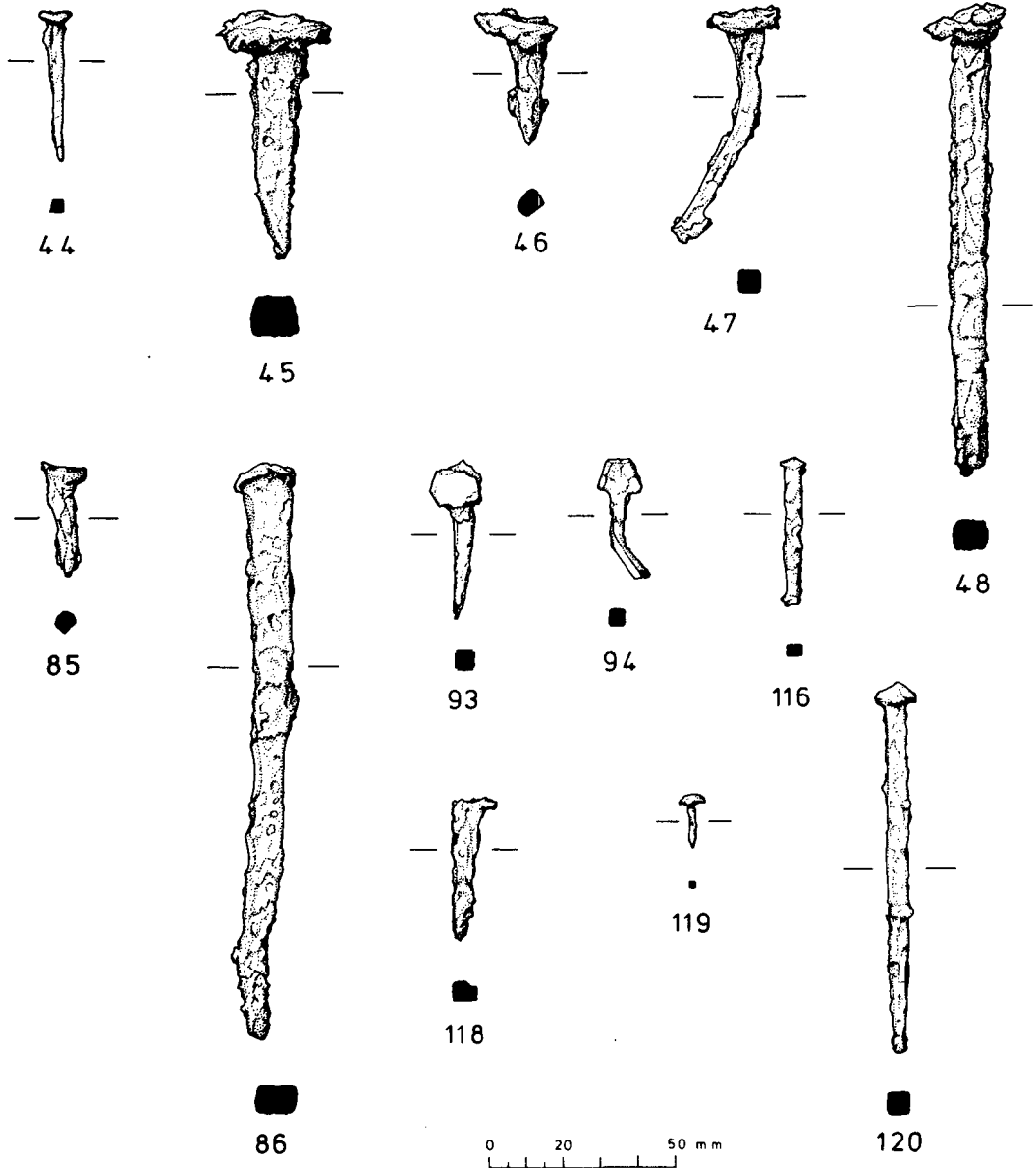
Four keys were recovered, two of the padlock variety. No 4 has a plain rectangular or loop ward (LMMC Type C) with no projections. This is fairly closely paralleled by an example from Threave



ILLUS 25 Iron small finds (scale 1:2)

FWM

Castle (Good & Tabraham 1981, fig 21, 121). Type C padlock keys appear to be the regular type from the thirteenth century onwards (*LMMC* 1975, 148). No 5 belongs to Type B which have the bit set laterally to the shank (*LMMC* 1975, 146). Type B is assigned to the thirteenth and fourteenth centuries in Scandinavia, while in Britain it has been found in a twelfth-century context (*LMMC* 1975, 146-8). No 5 is paralleled by a key from Rayleigh Castle, Essex which was abandoned c 1270 (*LMMC* 1975, fig 45, 6). The two remaining keys (nos 6, 7) are both of Type 3 with tubular shanks (*LMMC* 1975, 136-7). This type of key is not very common but occurs sporadically throughout the medieval period (*LMMC*



ILLUS 26 Iron nails (scale 1:2)

1975, 137). The smaller one is probably for a chest. A number of later medieval chest keys retain the tubular shank (*LMMC* 1975, 137). A similar example is known from phase 3 (1455-1640) at Threave Castle (Good & Tabraham 1981, fig 12, 120).

The decorative piece of ironwork, no 8, is probably a decorative mount for a box or chest. These mounts come in a variety of shapes in both iron and bronze (cf Good & Tabraham 1981, fig 13, 136; Platt & Coleman-Smith 1975, fig 253, 2040, fig 240, 1707, fig 242, 1783).

Although only a portion of the horseshoe (no 10) survives and much of its outer edge has broken off, the nail holes do not appear to be counter-sunk and hence the outline is plain. Wavy-edged horseshoes do not appear to continue after the thirteenth century (*LMMC* 1975, 115), although they may have overlapped for a time with plain outlined horseshoes.

Tweezers such as no 11 have been found at London (Henig in Tatton-Brown 1974, 191) fig 38, 55) and Cheddar (Goodall 1979, 267, fig 90, 22). These were probably used for non-domestic purposes (Goodall 1981, 61).

A number of rods, most of which lack both ends, were recovered. The majority of these have rectangular or square cross-sections and may be the remains of nail shanks. However, without definite proof it is difficult to be certain. A number of the rods may be scrap or waste from the manufacture of other objects.

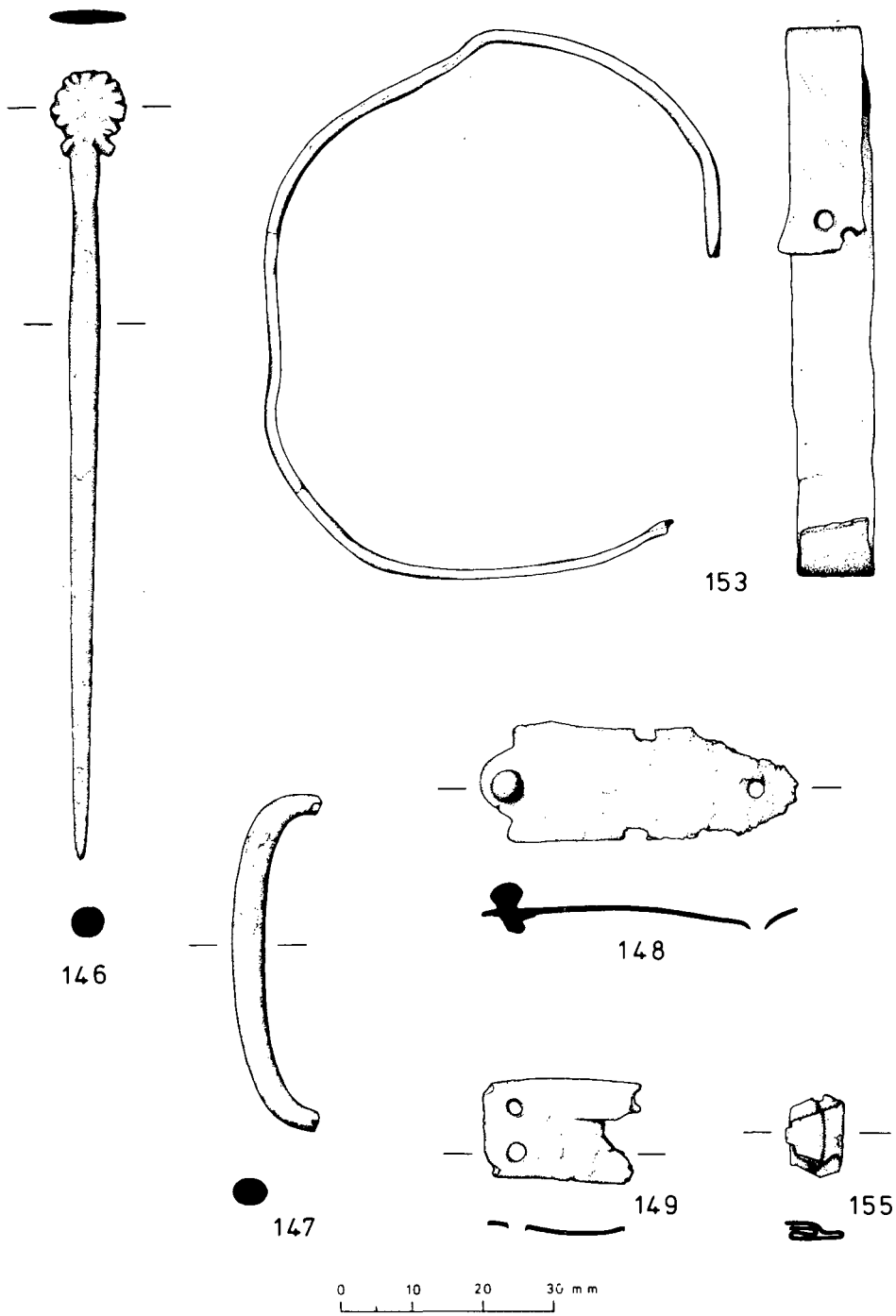
Portions of sheets or plates of iron were recovered and all are from phase VI. Most of these are too fragmentary to determine their original form. Likewise, the portions of strips recovered are too small to discern their use although many of these may be scrap.

The nail fragments have previously been typed. Below Mr Spearman discusses their use. The flat-headed nails form a readily recognizable group known as clout nails. These were used in general carpentry and, particularly in the case of the shorter nails, for attaching fittings, any sheet material or planking to main timbers. These nails would have been produced from iron bars cut and worked to the required length and shape by a blacksmith. They would then be headed in a tool which consisted of a series of countersunk holes into which the blank nail could be inserted leaving a protruding stump that was then beaten to form the nail head. This standard method of production may explain the occurrence of the splay-headed nails which may either never have been headed or may have lost their heads. Their appearance is in all other respects consistent with the general group of flat-headed nails.

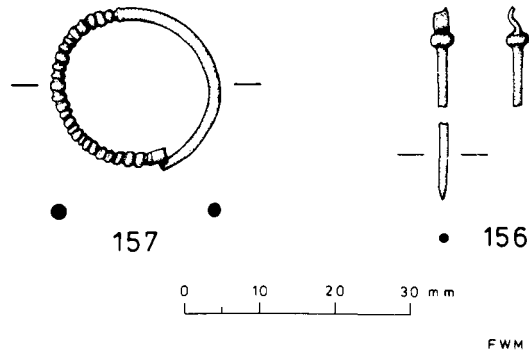
The fiddle-key headed nails also form a distinct group and are commonly associated with the shoeing of horses, but may also have been used as decorative studs. The triangular-headed nails are recognizable as clasp nails which, along with the single example of a rectangular-headed nail or brad, would have been used for carpentry work in which the nail head was to be flush with the wood. The dome-headed and chamfered nails represent two extremes of the use of nails as decorative studs. The former may have belonged to some fine piece of woodwork, whereas the latter would be more likely to have been used, for instance, as door studs. The distribution of all of these nails is very largely confined to phases III-V. The fiddle-key headed nails concentrate in phase V, while the flat-headed nails are most numerous in phases IV and V.

Two cast stick-pins, one in bronze (no 146) and one in silver (no 156) were found. Cast bronze stick-pins with disc heads and fillets first appear in the eighth to ninth centuries (Laing 1973, 70; 1975, 329). This form continued in use in later periods, frequently with the fillet becoming a projection on either side of the shank below the head. The decoration on these pins frequently takes the form of ring and dot or rocked tracer type. Although wire pins are the most common type on English medieval sites, a number of Scottish sites have produced cast stick-pins, for example Perth, Aberdeen and Elgin (R M Spearman, pers comm). The squat circular-headed silver pin with a projecting rod or wire on the apex of the head (no 156) is unique. The projecting rod or wire is missing one end but appears to have originally formed an eye. This may have had a cord or chain threaded through it which served to secure the pin when it was stuck through a cloak (cf Fanning 1983, 334). A decorated baluster-headed pin with fixed ring on its apex was found in the middle Norse horizon at Birsay (Curle 1982, fig 39, 427). This is paralleled by a pin from Gotland which is attached to a chain (*ibid*, 78).

Two bronze backing plates or mounts were recovered. The more decorative example (no 148) may have been used as a mount on a belt. Several fragments of bronze sheet were found (nos 150-2). The majority are too fragmentary to determine the form of the original object. Nos 150 and 151 are all very thin (less than 1.0 mm) and may have originally formed a bowl or served as a covering on a wooden vessel (cf Platt & Coleman-Smith 1975, fig 240, 1705). Two strips of bronze (nos 154 & 155) and a portion of a binding strip were also found. No 155 has been folded over and may have been scrap



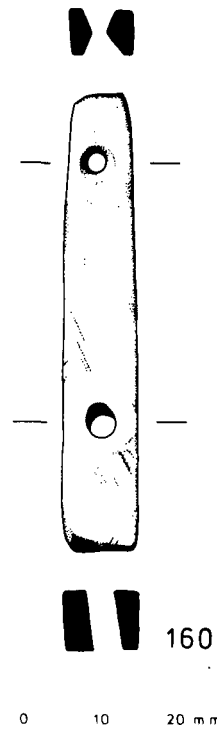
ILLUS 27 Copper alloy small finds (scale 1:1)



ILLUS 28 Silver small finds (scale 1:1)

which was to be re-melted. The binding strip (no 153) would have been used on a wooden or perhaps leather object.

One finger-ring was recovered (no 157). This may originally have been of the spiral form as both ends of the wire are missing. Spiral finger-rings have a long history, examples are known from the middle Bronze Age, the first century AD and the early historic period (Clarke 1971, 26). There is, however, no evidence to suggest continuity. It seems probable that the rings enjoyed several periods of popularity without any one period providing a major impulse to another. Decorative notching on the ends of the spiral seems to have been used during several periods. Silver rings with decorative notching occur in the hoard from Norrie's Law, Fife (Clarke 1971, 29).



ILLUS 29 Whetstone (scale 1:1)

Half of a silver long cross penny of Henry III, second issue was recovered from phase I. These coins were introduced between 1247 and 1250. There are two major forms within the second issue, those without a sceptre and those with. The latter were in circulation between 1250 and 1279. Because only half of the coin from Castlehill of Strachan survives it is difficult to determine whether or not the obverse face contained a sceptre. On the obverse face of this coin the legend starts above the centre of the crown. On the majority of coins containing a sceptre the legend is offset from the crown. However, there is one exception (Brooke's Type IV) which contains a sceptre but also has the legend beginning above the crown (Brooke 1942, 108, pl xxii no 17). This is dated to 1250–51 and most closely parallels the Castlehill coin.

Only one glass bead was found. This appears to have been abandoned during manufacture as the bead is only partially perforated.

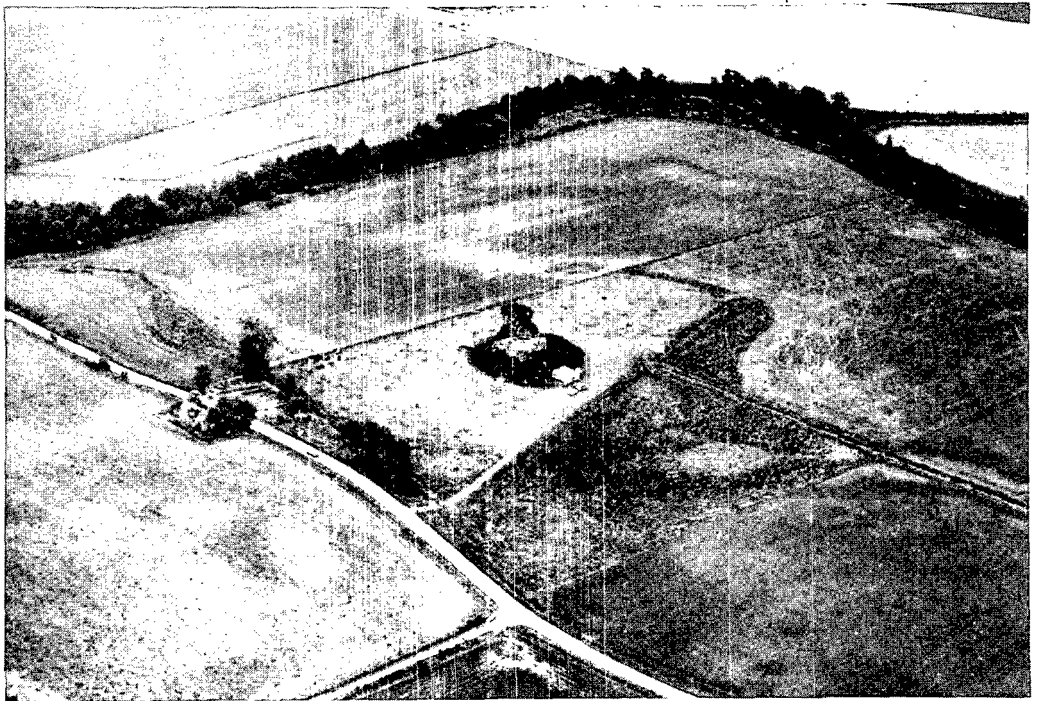
A small shaped whetstone perforated at either end (no 160) was recovered. Perforated whetstones are common on medieval sites (cf *LMMC* 1975, pl xciv) and are usually perforated near one end for a thong to suspend the whetstone from a belt. No 160 may therefore have been attached to a belt or strap at both ends.

APPENDIX 9: GEOMORPHOLOGY

A M D Gemmell

The full report is on fiche 4: D13

The conclusion of the research carried out is that the depression cutting across the valley floor to the south of Castlehill of Strachan (illus 30) marks the line of a former course of the river Feugh.



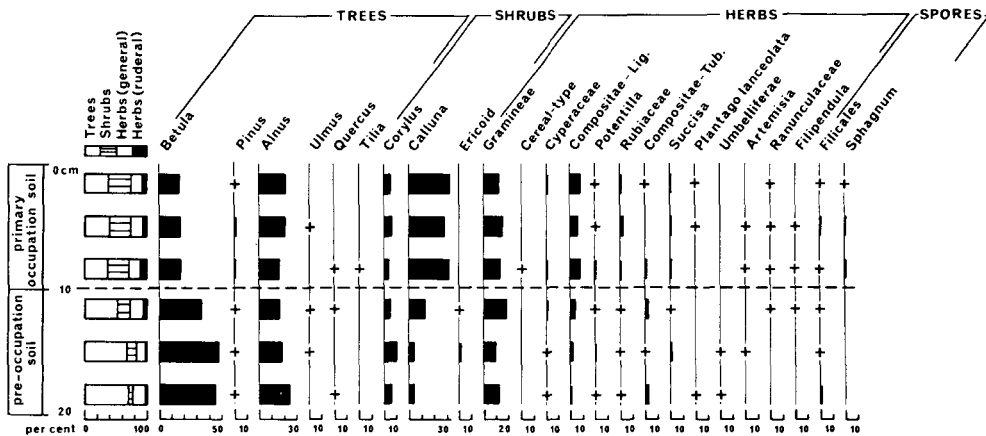
ILLUS 30 Aerial view showing former drainage pattern (Aberdeen Archaeological Surveys: Crown Copyright reserved)

APPENDIX 10: POLLEN ANALYSIS

P D Hulme & J Shirriffs

The full report is on fiche 4: E2; it contains details of the pre-occupation soil spectra.

The primary occupation deposit contains a pollen spectrum similar to that of the pre-occupation soil (illus 31); however, the percentage values of a number of the taxa differ substantially. In the primary occupation deposit there is significantly less tree pollen owing to a halving of the *Betula* values. In addition, the *Calluna* pollen content greatly increases and the amount of ruderal pollen almost doubles. These features suggest that at or around the time of primary occupation there was a period of birch clearance. Heather could have replaced birch in part of the cleared area, especially if it was present in the woodland ground flora. Clearance was probably associated with increased agricultural activity, although some of the ruderal pollen could have come from areas disturbed during the primary occupation of the site.



CASTLEHILL OF STRACHAN

ILLUS 31 Pollen diagram

APPENDIX 11: PALAEOBOTANICAL REPORT

W E Boyd

APPENDIX 12: REPORT ON THE CHARCOAL SAMPLES

W E Boyd

See fiche 4: E4-G3.

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During both seasons Alan H Graham assisted the director and was instrumental in ensuring the success of the project. Alan Graham also drew the majority of the excavation figures with the exceptions of illus 2, 3, 15, which are by the author. The non-ceramic finds were drawn by Frank Moran. The excavation work was carried out by a total of 20 volunteers, notably Philip G Duthie and Gina Porter who acted as site assistant. The landowner, T B Smith of Letterbeg, generously helped in many ways.

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