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The Traprain Law Environs Project

Fieldwork and Excavations 2000-2004

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Chapter 4

Excavations at Standingstone

COLIN HASELGROVE, PETER CARNE and LEON FITTS
(with contributions by Alison Sheridan and Charlotte Henderson)

The enclosure at Standingstone is situated on the western flank of a low rise some 2km to the south-west of Traprain Law at 110m AOD (Plate 1). It was first recorded in 1976 by RCAHMS, when two aerial photographs were taken. On one image a roughly C-shaped arc of ditch can be seen, while on the other image, taken from a different direction, it requires the eye of faith (and the other image) to see the feature. Fortunately 1977 produced a clearer cropmark (Figure 4.1), recording the line of an arcing ditch which describes about two-thirds of a circle, broken by a wide gap on the north-west and, apparently, a narrower gap on the south-west (which was not evident on excavation). The site was not photographed again until 1994, when the definition of features was once more indistinct; further photographs were taken during the excavation in 2003. However, the mapping of the visible cropmarked ditch indicates a projected diameter of about 47m within a ditch averaging 2.5m across. Allowing between 2.5m and 3m for a bank on the inner lip of the ditch, an internal area of about 0.15ha is indicated.

The geophysical survey produced particularly noisy data, with consequent problems of interpretation, but

the ditch is clearly evident, as is the break to the north-west. Some very weak, curvilinear, positive magnetic anomalies detected inside the enclosure proved to coincide with features revealed by excavation, as did a narrow ditch at the southern edge of the enclosure. Other relatively intense, but diffuse, geomagnetic anomalies detected outside the enclosure are almost certainly geological in origin. The site lies on Carboniferous extrusive trachyte, overlain by Boulder Clay.

The location provides extensive views to the west over towards Edinburgh and the Pentland Hills (Figure 4.2), but the site itself is not visible from the ground immediately below it to the west, although the hill itself is a prominent feature within the area. Traprain Law dominates the view to the east. Other apparently incomplete curvilinear enclosures are known in the TLEP study area, for example at Hedderwick, near East Linton (although here an internal palisade is visible all the way round, and the ditch disappears into a band of darker cropmark which might be colluvium), suggesting that the form might represent a particular class of monument, rather than a case of incomplete construction. An evaluation trench was therefore

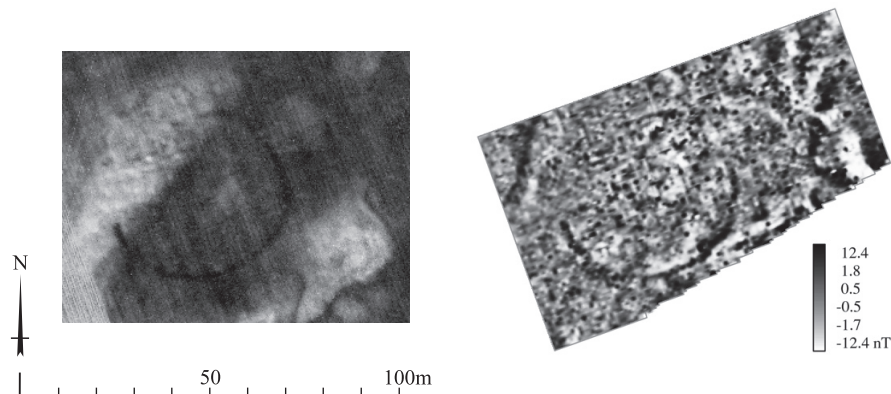


Figure 4.1

Standingstone (NT57SE 45): rectified aerial photograph (EL3490) and TLEP geomagnetic survey (Crown Copyright: RCAHMS, GV004473)



Figure 4.2

The Standingstone enclosure immediately after stripping: view towards the Pentland Hills (centre) and Edinburgh

excavated in April 2002 over the Standingstone ditch to investigate the state of preservation and to sample for carbonised plant remains (ASUD 2003b), following which the site was selected for more detailed investigation in 2003. The evaluation indicated that the site was suffering badly from ploughing and it was agreed with Historic Scotland that in this case the excavation would cover the entire enclosure.

Standingstone takes its name from the presence of a monolith at the farm 1.5km east of the site; another standing stone lies nearby.

THE EXCAVATIONS

In order to encompass the whole enclosure, an area $c. 46 \times 49\text{m}$ was opened, with a 20m long extension to the east to examine possible features there (Figure 4.3). The total area examined by the excavation, which took place over four weeks in June–July 2003, was $c. 2565\text{m}^2$. A Data Structure Report was submitted to Historic Scotland in March 2004 (ASUD 2004a); the site code is TST03.

The results are described in three main sections: first those features which certainly or probably pre-date

the enclosure (Phase 1); second, the enclosure ditch, an accompanying palisade revealed in the excavation, and other associated features (Phase 2); and thirdly, later features established in the interior long after the enclosure was created, but when there was still a vestigial earthwork (Phase 3).

The site lies on gently sloping shelf, with a fall of $c. 2\text{m}$ across the interior from north-east to south-west. For the most part, the subsoil comprised yellow brown clay with laminations of sand, visible as linear gullies where they reached the surface; topsoil was a dark brown clay loam some 0.25m deep. In the north-west part of the excavation, bedrock outcropped to form an uneven surface in which pockets of subsoil were present to a depth of up to 0.4m. Both ditch terminals cut into the outcropping bedrock at opposite ends of the circuit. Modern ploughing was visible across the site, primarily in a north–south direction, and a number of field drains on the same general axis were identified. Plough damage was greatest in the southern and eastern parts of the site, effectively following the topography, and on the surface of the bedrock. A zone of enhanced preservation about 10m in width was evident adjacent to the outcrop; here earth-bound

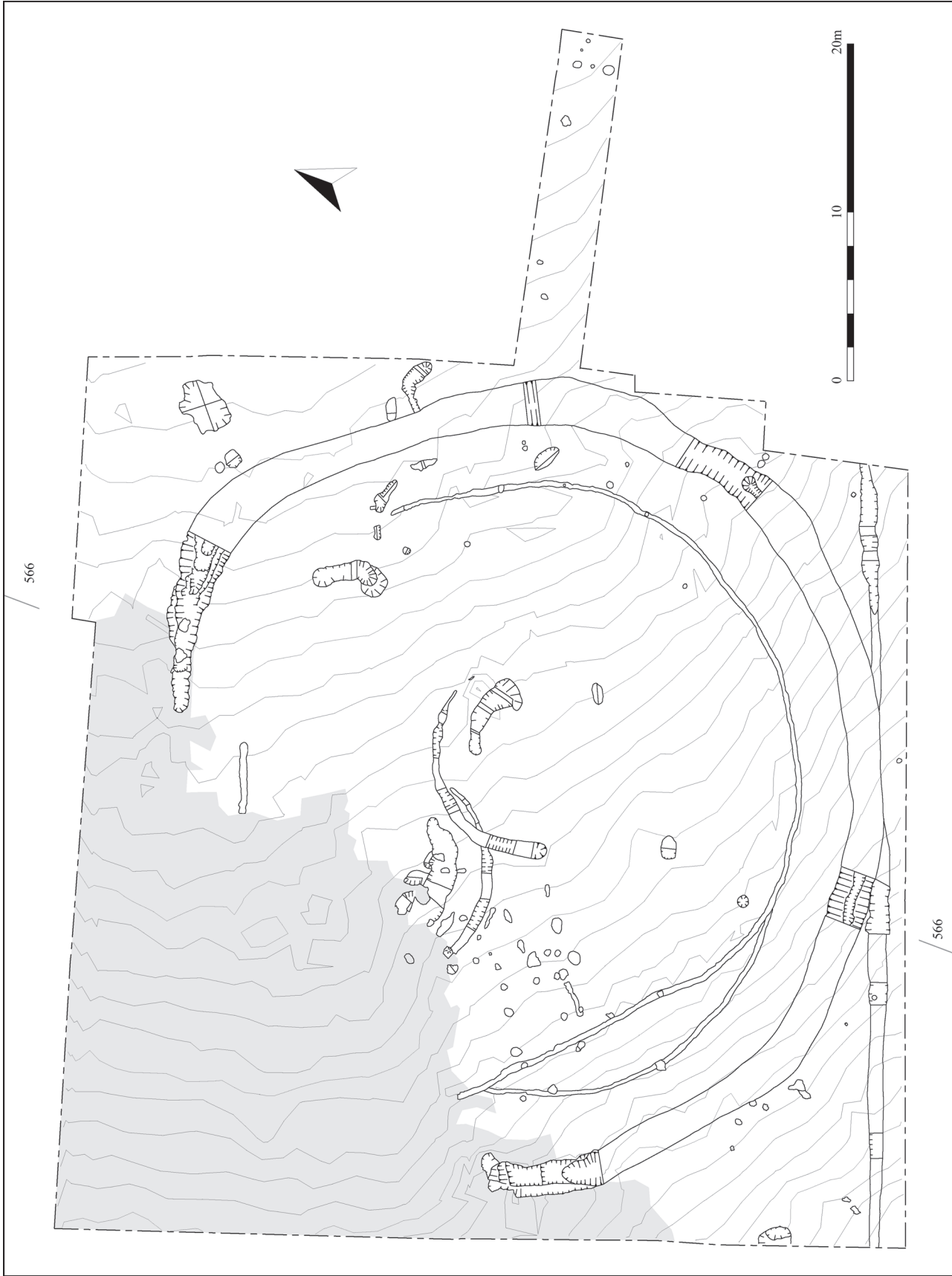


Figure 4.3
Standingstone: plan of principal features excavated, showing extent of outcropping bedrock and contours at 0.1.m interval

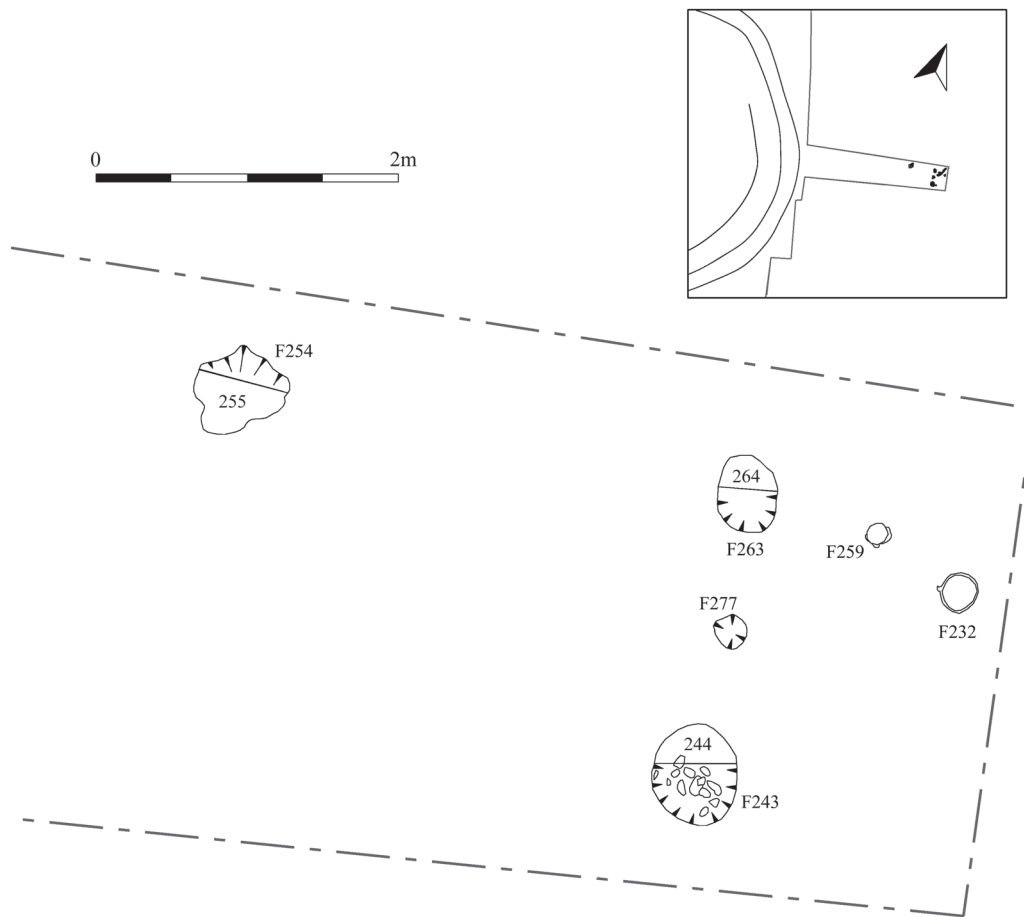


Figure 4.4
Plan of the cremations (F232, F259) and nearby features

features were less damaged, presumably because the rock had forced the plough to be raised, thus reducing truncation.

PRE-ENCLOSURE ACTIVITY

A number of features clearly pre-date the enclosure, based on their location, character, or stratigraphic position. These include a linear ditch, burials, some fire pits and possible buildings.

Later Neolithic pit

A small circular pit with sloping sides (F56, 0.65m in diameter) lay within the southern part of the enclosure, but is clearly of earlier date. The contents included

seven potsherds that could conceivably be attributed to the Grooved Ware tradition (Chapter 7), a broken flint blade (sf 11) and three flakes, and tiny fragments of calcined bone. Radiocarbon dates of 2880–2570 cal BC and 2870–2490 cal BC (SUERC-10535; 10536) were obtained from barley grains in the fill [21], which also included pockets of charcoal towards the top, as well as rounded stones lying on the base.

Early Bronze Age graves containing cinerary urns

The remains of two pottery vessels were identified some 20m outside the enclosure ditch at the end of the eastern extension (Figure 4.4). The first (Pot 1) comprised the rim of an inverted urn, with cremated bone clearly visible within the fill (F232). A minute

EXCAVATIONS AT STANDINGSTONE



(A)

(B)



Figure 4.5

(A) The cinerary urns *in situ*; (B) Lifting Pot 1

flint flake was found on the surface (sf 63). No trace of any pit remained. The remains of the urn were frozen with liquid nitrogen and lifted in a block for laboratory excavation (Figure 4.5). From the surviving part of the pot, an estimated 0.3–0.4m of subsoil has been lost to ploughing, assuming the urn was buried intact and below ground level. The remains of a second vessel lay 0.5m to the west, this time the base of an upright urn (Pot 2). Chips of calcined bone were recovered from the surrounding soil, suggesting this is the truncated

remains of a second cremation (F259), buried at a slightly shallower depth.

A number of other small pits and post-holes were found in the vicinity: F243 (0.65m in diameter) yielded two spalls of coarse pottery (sf 43, 44), whilst F254 yielded a cobble tool (sf 64). An irregular gully F270 cutting the second cremation appeared to be a burrow, but contained charred cereal, which may derive from a disturbed feature. A sherd of flat-rimmed ware (sf 61) came from the spoil-heap nearby.

The cinerary urns – Alison Sheridan

Pot 1, which consisted mostly or exclusively of sherds from the uppermost part of the vessel, had been buried inverted; Pot 2, represented by its base and a few fragments from the lower body, had been buried upright. Cremated bone was associated with both vessels.

POT 1

This vessel (sf 35) is represented by its rim and the top 71mm of its body, the constituent sherds having been refitted and gap-filled to form an unbroken, slightly oval and uneven circuit some 210–220mm in diameter (Figure 4.6). A further eleven small sherds and 16 fragments are also present. The original height of the vessel can be estimated at 270–320mm.

The rim is gently pointed and has a steeply-sloping, concave internal bevel 16.5–20mm deep. The exterior below the rim slopes out gently and is slightly convex; it is decorated with a design of broad (up to 2.5mm) but shallow impressions of loosely-twisted cord, arranged as upwardly-sloping diagonal lines framed top and bottom by horizontal lines. The wall probably tapered in below this point, and although this top section of the vessel is collar-like, it would not be correct to describe the vessel as a Collared Urn, for reasons given below. Wall thickness varies from 10mm at the bottom of the surviving ‘collar’ to 16.5mm at the bottom of the rim bevel.

The surfaces of the pot are a reddish and orange-brown colour, now darkened by the application of consolidant; the core matches the surface colour over parts of the circumference, and elsewhere has a blackish band of variable width, indicating where the organic material in the clay had been incompletely burnt out during the rapid firing. The fabric is slightly gritty and these stone inclusions protrude through the surfaces, despite attempts to achieve a smooth finish (which probably involved wet-smoothing of the surfaces). The inclusions comprise small fragments, mostly under 5mm

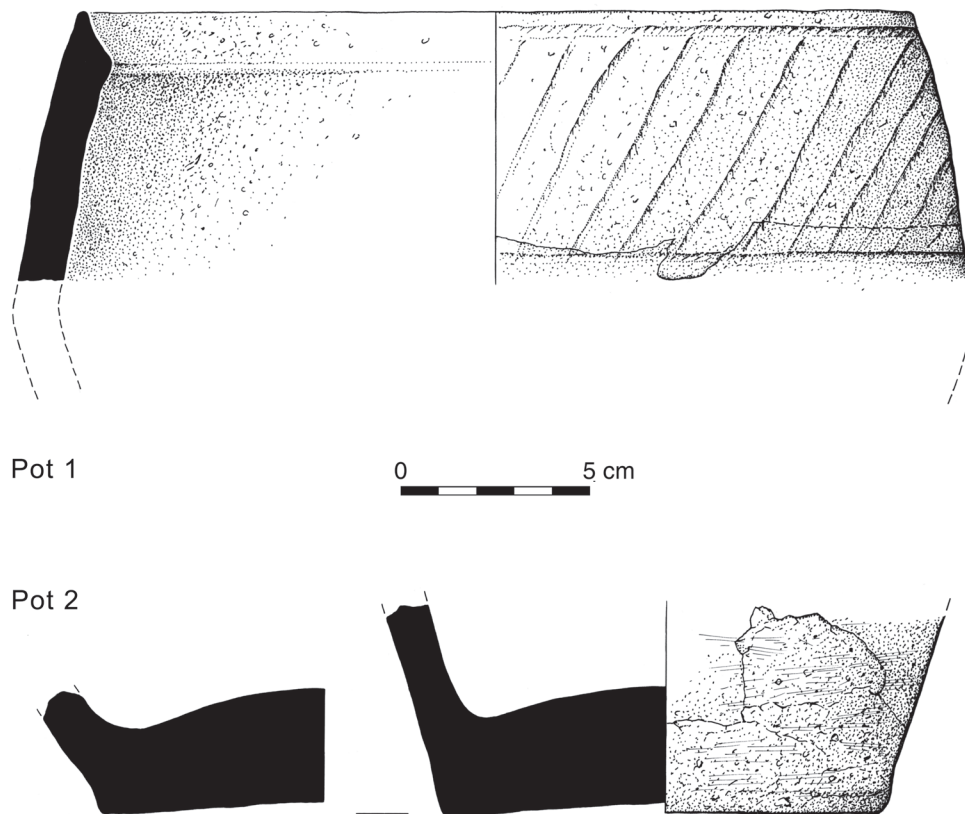


Figure 4.6
The cinerary urn (Pot 1) and base (Pot 2). Scale 1:2 (Marion O'Neil)

in their maximum dimension, and mostly angular and sub-angular in shape; their overall density is 10–15%. They mostly consist of a hard black stone, which may contain a black shiny mineral; there are also fragments of a speckled crystalline stone, reddish, white and black, and discrete fragments of the constituent black shiny mineral. Occasional fragments of a very fine-grained speckled stone, and occasional quartz grains are present. It is likely that some of these inclusions were present naturally in the clay, while others represent deliberately crushed filler. The stone types have not been identified to their probable source.

POT 2

This comprises a complete base and part of the lower body (sf 37, found *in situ*; sf 1 from topsoil), together with one sizeable detached lower body sherd (sf 60) and two further, smaller body sherds (sf 2, 38) all found in topsoil nearby, with a few additional small sherds, fragments and crumbs. The base, 112–120mm

in diameter, is pedestalled and has a slightly concave outer surface and markedly convex interior (Figure 4.6). The wall splays at a variable angle and variable degree of curvature, giving the vessel a markedly lopsided profile. Wall thickness, at the lower belly, is *c.* 12mm; the maximum basal thickness is 31mm. The exterior surface at the base is fairly soft: brush marks from the pot cleaning process are visible.

The exterior is a mottled buff and pale pink colour; the core, blackish-grey; and the interior varies from pale grey to grey-brown and dark grey. An attempt had been made to achieve a smooth surface and, to judge from the detached belly sherd, the pot had probably been coated with a thin slip; but numerous lithic inclusions protrude nevertheless. Again, these inclusions comprise a variety of types, shapes, and sizes and represent a mixture of naturally-present and deliberately-added material. Fragments are angular to rounded, up to 6.5 × 4mm in size, and at a density of 10–15%; some of the same rock types as seen in Pot 1

are present (notably the shiny black mineral, speckled red-white-black stone, occasional quartz grains, and hard black stone). Brown sandstone and speckled sandstone are also present, and since sandstone is abundantly available locally, it is likely that this pot was made locally.

DISCUSSION

Despite the fact that only a small part of each vessel is present, enough survives to provide pointers to the type of pottery represented. A radiocarbon date of 1680–1490 cal BC (SUERC-11893; Table 9.2) on cremated human long bone from Pot 1 and the fact that Pot 2 was buried upright provide further clues. It will be assumed that the proximity of the two vessels to each other indicates that they are broadly contemporary and broadly of the same type of pottery.

Pot 1's internally-bevelled rim, slightly convex and inclined collar-like neck and simple, cord-impressed decorative scheme are all features of the Cordoned Urn tradition (for a discussion of the tradition, see Waddell 1995; Sheridan 2003; 2007). If one assumes that Pot 1's lower body was of the same basic shape as that of Pot 2, then both urns may well have been simple bipartite vessels (with or without a cordon at the bottom of the 'collar'). Such vessels can be regarded as an intermediate form between the more globular and sometimes multi-ribbed Cordoned Urns that reflect this tradition's origins in the Collared Urn tradition (as shown, for example, at Stobshiel, East Lothian: Waddell 1995, fig. 11.1.10) and simple Bucket Urns. Other, similarly 'transitional' urns are known from elsewhere in Scotland, as at Ardeer (Stevenston) Sands, South Ayrshire (Mann 1906; Morrison 1968) and Limefield, South Lanarkshire (Maclaren 1984). Such urns are found in both inverted and upright positions, like the Standingstone examples. Cremated bone from one such vessel from Ardeer Sands (Mann's urn 15) has produced a radiocarbon date of 1740–1520 cal BC (GrA-34770, 3350 ± 35 BP; Sheridan and Bradley 2007, 220), very similar to the date for Standingstone Pot 1. Closer to Standingstone, both geographically and in terms of shape and decoration, is a bipartite urn from a Bronze Age cemetery at Eweford, East Lothian (MacGregor 2007, fig. 5.11, urn 5). Found empty and on its side, this vessel may well represent a cenotaph or special offering; its decoration is identical to that of Standingstone Pot 1. Although the Eweford vessel was not directly dated, it is likely to have been buried within the time range 1750–1675 BC (Sheridan unpublished) – slightly earlier than the Standingstone urns.

The simple shapes and decorative schemes of these 'intermediate Cordoned-to-Bucket Urns' and their Bucket Urn successors are paralleled among contemporary domestic pottery from southern Scotland and northern Britain, as found for example in unenclosed platform settlements such as Green Knowe, Borders (Jobey 1980) and Lintshie Gutter, South Lanarkshire (Terry 1995). This kind of pottery has been defined and discussed by Colin Burgess (1995). An East Lothian example of a bucket-shaped vessel with a similar decorative scheme to that of Standingstone Pot 1 was recently found at the Howmuir Farm settlement (Innes 2007, fig. 6.3). Five radiocarbon dates for Howmuir range from 1910–1690 cal BC (GU-13318, 3490 ± 35 BP) to 1610–1410 cal BC (GU-13319, 3210 ± 35 BP), overlapping with the date obtained for Standingstone Pot 1.

These two graves at Standingstone are likely to represent the last surviving remnants of a Bronze Age cemetery. Their location on a local rise is wholly typical for Bronze Age graves. There is abundant evidence in East Lothian for funerary activity from most parts of the Bronze Age: the A1 excavations at Eweford produced an entire cemetery with urned and un-urned cremated remains spanning the second millennium BC (MacGregor 2007).

The cremated remains – Charlotte Henderson

Pot 1 was excavated in the Conservation Laboratory at Durham University, by Grant Lock. The fill was removed in separate quadrants in four spits of *c.* 20mm each, the remains being photographed and drawn at each stage; the soil was then washed through a 500µm sieve and the residue sorted. A total of 236g of cremated bone was recovered from within the urn; 2.8g came from outside it and 0.2g beneath it. The bone was extremely fragmented and very little was identifiable; only 53% of fragments were larger than 10mm, the largest measuring 46 × 22 × 4mm (max).

The only identifiable remains came from within the urn. Several pieces of skull were found (12.9g), together with long bone fragments (21.9g), including a piece possibly from the neck of a femur and a piece of humerus or tibia (which was radiocarbon dated). An articular surface and two possible rib fragments (5.7g) were also recovered. The only more accurately identified remains (2.7g) were several probable molar roots; an incisor root and a possible pre-molar were also present. The tooth roots resembled stage H development (El-Nofely and Iscan 1989, 248–9), which indicated that the individual(s) was at least 9

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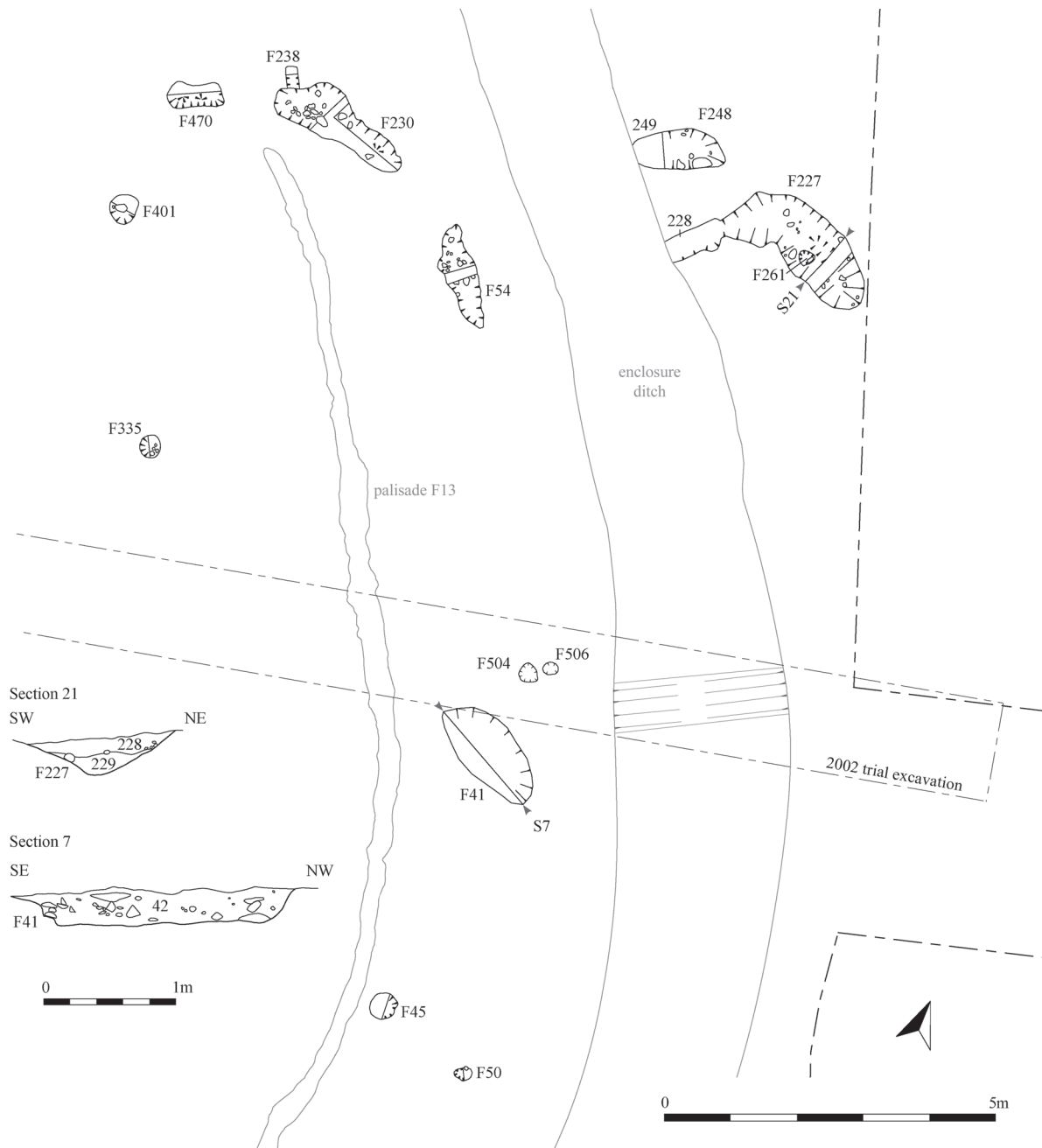


Figure 4.7
Early features on the eastern side of the enclosure

years old. Most of the identifiable pieces of bone came from the lowest spit, but skull and long bone fragments were present in most contexts; tooth roots occurred only on the surface of the urn (as excavated) and in the lowest spit.

No minimum number of individuals could be ascertained, and sex was impossible to determine. The only identifiable individual was more than nine years old (with no upper limit), based on tooth root development. No evidence of pathology could be

recovered from the fragmentary remains. All the bone was fully oxidized and white in colour, indicating a temperature of over 600 degrees centigrade acting on the bone (McKinley 2004). The cremated bone had regular transverse and longitudinal cracking, indicating that the body had not been defleshed prior to cremation (Buikstra and Ubelaker 1994, 96).

The soil from the urn also contained tiny fragments of charcoal and of a soft reddish stone, which may be a natural feature of the soil rather than a deliberate inclusion. Further fragments of burnt bone from the adjacent spoilheap and elsewhere on the excavation were examined, but none could be identified as human. A full report is in the site archive.

Linear ditch

A shallow linear ditch F31 running south-west to north-east along the southern edge of the site was cut by the later enclosure ditch (Figure 4.13 below). This evidently reflects an earlier phase of land division or enclosure, but no direct dating evidence was forthcoming. Towards its eastern end, eight stake-holes were observed in the base of the ditch; their exact relationship to the ditch is uncertain. Further to the west, a post-hole (F77) cut the fill. Two more post-

holes and a stake-hole (F331; F155; F188) lay close by, but need not be associated. It is, however, possible that more than one phase of the boundary is represented, or that it was long enough lived to require repair.

Other pre-enclosure features

A number of other features can be attributed to this general phase, either through their relationship to the enclosure ditch or from radiocarbon dating. They include a variety of feature types and possible structures, which from radiocarbon dates seem likely to represent a phase of activity or occupation post-dating the cremation cemetery. It is possible that the linear ditch formed a boundary to this activity. Some unphased features which cannot obviously be related to later occupation are also conveniently described here.

Outside on the eastern side

Just to the north of the extension, a curving elongated pit (F227, 3m long), deepest at its eastern end, was clearly cut by the enclosure ditch (F348) on its west side, where it took the form of a much narrower gully (Figure 4.7). A grey primary fill contained much charcoal indicative of burning [279]. A small post-hole



Figure 4.8
Plan of scoop F240 and nearby features

TRAPRAIN LAW ENVIRONS

F261 cut the basal fill [297]; both were covered by the upper fill of brown sandy clay [228], which yielded a small fragment of coarse pottery (sf 53) and more charcoal. The form of the pit suggests it might be the remains of an oven or hearth, although the base was not evidently scorched. Birch charcoal from the upper fill [228] gave a date of 1380–1090 cal BC (SUERC-10555), suggesting that the burning was not associated with the cremations. Just to the north-west of F227 was a shallow oval scoop (F248, 1m long) also cut by the enclosure ditch.

Some 10m further around the circuit to the north-west was a rectangular shallow scoop (F240, 3.2m long) with a roughly cobbled base [242], which could be the remains of a working area or structure, possibly accessed from its north-western side (Figure 4.8). Between F240 and the ditch was a post-hole (F292) and a square, flat-based pit (F294, 1m across). The only

other features of note in the eastern part of the site were a possible pair of post-settings 1.75m apart in the eastern extension (F257; F265), and two adjacent post-holes (F355; F357) close to the line of the enclosure ditch.

Between the ditch and the palisade

A scatter of truncated features lay between the ditch and the palisade on the eastern side of the enclosure. These would have been sealed beneath any internal bank, unless they were created after it had virtually disappeared (Figure 4.7). They included an oval pit with a flat base (F41, 1.75m long), which was probably a hearth or fire-pit, since the fill [42] contained a large amount of charcoal, burnt clay and flecks of burnt bone, and the sides were scorched, suggesting burning *in situ*. Two post-holes lay nearby (F504, F506).

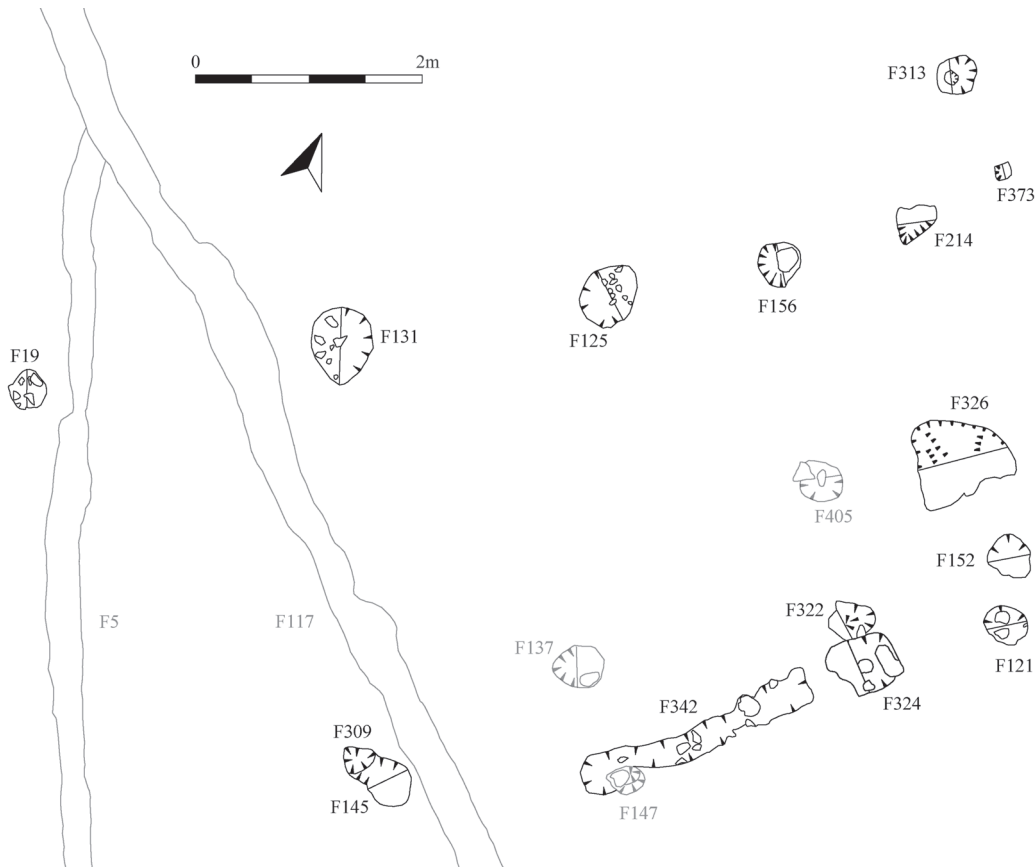


Figure 4.9

Plan of probable early features at the western end of the palisade

The most interesting feature in the area was a small, shallow pit F45 (0.4m in diameter), which lay close to the palisade. This yielded a cache of fully processed grain, predominantly of emmer-type wheat (84%), but also hulled barley (16%). An emmer grain provided a date of 1010–830 cal BC (SUERC-10537), similar to the dates for the palisade. The cache might conceivably be some kind of foundation deposit.

Close to the end of the palisade was an arc of three features, two of which would lie below a bank. F54 was an irregular elongated scoop 1.5m long, parallel to the ditch, with patchy cobbles [225] across its base and containing a stake-hole (F226). F230 was a slightly larger elongated pit, *c.* 2m long, with a fairly flat base; its main fill [231] contained burnt and fire-cracked stones and hazel charcoal, which produced a date of 1010–830 cal BC (SUERC-10556). At its western end was a short segment of narrow gully (F238) cutting the upper fill of F230. The third feature in the arc, an irregular hollow (F470) just inside the line of the palisade, again had a charcoal-rich fill [471]. Although different from each other in character, these slots form an arc of 6.5m diameter and may be the remains of a badly eroded structure, to which two nearby post-holes might also belong (F335; F401), as they lie on a circle of *c.* 5m diameter concentric with the gullies. However, F230 resembles the oven-like feature F227 just across the ditch at this point, so the positioning may be coincidental.

Near the western end of the palisade

At the opposite, western end of the palisade, a cluster of post-holes was recorded in the zone of enhanced preservation beside the exposed bedrock (Figure 4.9). More than one structural phase is represented. Some of these features are probably contemporary with the palisade (and discussed below), but others seem more likely to pre-date it. Among the latter is a pair of larger post-settings (F125; F131) just over 2m apart, which may form part a longer alignment with F19, a similar distance to the west and, less certainly, F214 a similar distance to the east. Three other posts form a second, equally spaced alignment at a right angle (F156; F405; F324). Birch charcoal from F131 gave a date of 1110–840 cal BC (SUERC-10548).

Other features seem to form a curvilinear arrangement, perhaps a screen or part of a larger structure of *c.* 8m diameter, belonging to a separate phase of activity to the first group. The core of the arc is a 2m long gully F342, extended to the west by a conjoining post-hole and scoop (F145, F309), and to

the north by post-holes F322, F326, and perhaps F214. These different elements are spaced roughly 2m apart. F147 on the edge of the gully may also belong to this structure, unless it is a pair with F137. F137 might form a concentric inner arc with F156 and F405 if these latter are not part of the linear alignments described above. F313 on the edge of the bedrock had a clear post-pipe, but could not be related to any nearby features apart from possibly F373.

A solitary sub-rectangular scoop F63 to the south-east of these structures may also belong this phase; it has patchy cobbling in the base [64], reminiscent of some of the pre-enclosure features in the north-east part of the site, although this characteristic does recur in the sunken features belonging to the Iron Age circular structures (below).

Outside to the south-west

Another cluster of features lay outside the enclosure, in the angle between it and the earlier linear ditch, among them three pairs of post-holes. The first pair was 0.5m apart: F183 preserved a post-pipe [184] as well as packing stones, and was cut by the enclosure ditch; F186 also contained large packing stones and its fill [187] yielded two sherds of coarse pottery (sf 45, 47). A metre to the north-west, a pair of smaller, shallower post-holes lay 1.3m apart (F200; F196); a hazel twig from fill [197] in F196 gave a date of 1130–910 cal BC (SUERC-10551). Finally, 7m to the south,



Figure 4.10

Standingstone from the air during excavation (Photo John Davies)



Figure 4.11

The enclosure ditch and palisade seen from the south

close to the early ditch, were two more irregular post-holes 0.5m apart (F161; F163). A clear post-pipe F211 within F161 was set at an angle (towards the north-west); the fill of the post-hole [162] contained burnt stones and charcoal. F163 also contained a post-pipe (F198) and was cut by a stake-hole (F165).

Also in this area was an oval scoop F1, which extended beyond the excavation. Nine stake-holes in the exposed part were possibly associated with a structure over the scoop. The fill contained charcoal and a few fragments of burnt bone, the whole feature somewhat recalling F227. Nearby was a small oval pit (F212) cut by a post-hole (F208) containing large packing stones.

THE ENCLOSURE

The enclosure is represented by a near-concentric penannular ditch and palisade *c.* 3–3.5m apart, broken only by a gap of *c.* 38m on the north-west, where the bedrock outcrops (Figure 4.10). Whether the circuit was originally continuous or not is considered below. In the south-west part of the site, two lines of palisade are apparent, one replacing the other. The evident conformity of the ditch and palisade implies that they are contemporary (Figure 4.11).

The enclosure ditch

Both ditch ‘terminals’ and three segments of the southern and eastern sides of the circuit were investigated. The ditch rather peters out at the northern end, but from its deepest point here was cut

essentially level across the slope as far as the south-eastern cutting, where it then stepped steeply down by 0.75m. From the rather better defined western terminal, the base of the ditch was similarly dug level at least as far as the south cutting. Between there and the south-eastern cutting, where the ditch climbs the steepest part of the slope, the base rises by 1m, either by a further step(s) between the two cuttings or simply by following the slope.

The western terminal

At its western end, the ditch (F3) had a maximum depth of 0.75m and width of 2.25m, becoming slightly narrower and shallower towards the terminal. It was cut entirely into the bedrock, which shatters in straight planes, giving the ditch a rectilinear plan, with near-vertical sides and a flattish base at the end, although it becomes more rounded towards the east (Figure 4.12). Given the depth of soil lost to ploughing, we should perhaps consider the possibility that this was not the original end of the ditch, but that it instead stepped up at this point, to continue its course across the bedrock as a much shallower feature, rather as occurs at the northern terminal.

The primary fill [101, 0.25m deep] contained much shattered bedrock, no doubt resulting from collapse of the rock on the outer side of the ditch. This was covered with deposits of sandy clay, the first largely stone free [49, 0.3m deep], the second containing much angular stone [48, 0.3m deep]. Both deposits lay principally on the inner side of the ditch, suggesting that they originated from erosion and collapse of an associated internal bank. The hollow left at the top

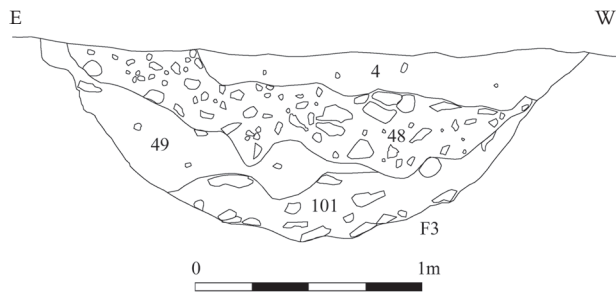


Figure 4.12

View and section of the western ditch terminal (F3)

of the ditch was again filled with sandy clay [4, 0.2m deep]. Five of the six cobble tools from the site came from this terminal, one from the basal fill (sf 42); three from the upper stony layer (sfs 20, 23, 25) and one from the top fill (sf 4). A single flint flake came from [49] (sf 39). Fragments of burnt bone were found in the two lower fills, including a cattle tooth from [49], which was dated to 1370–900 cal BC (SUERC-10538).

The northern terminal

The northern terminal (F29) was cut into the bedrock outcrop, although at the eastern end of the excavated section, the ditch reached the boulder clay subsoil. In contrast to the western terminal, this end began quite narrow and fairly shallow (0.9m wide, *c.* 0.5m deep), with a relatively flat base, increasing gradually in width to 2.8m and stepping down some 1.75m before the section to reach a depth of 1.25m, by which time the profile was roughly V-shaped (Figure 4.13).

A thin primary silt [415] was overlain by deposits of silty clay [306, 0.2m deep] and [304, 0.2m deep], the latter containing many stones; these deposits were confined to the deepest part of the ditch. Above them, extending along to the terminal, the upper part of the ditch was filled with dark brown sandy clay [296, 0.45m deep], towards the top of which were many large rounded stones [30; 291], suggesting that this fill may again have originated from a collapsed bank or revetment, although here there is less evidence for the direction from which these deposits accumulated. The uppermost fill consisted of more sandy clay [281, 0.2m deep].

The gap

There was no indication of any continuation of the circuit on the north-west side between the two terminals, although, as noted above, the ditch could have stepped up on the western side and continued as a shallower feature. Alternatively, it may never have been completed, or its place been taken by a fence or hedge, or a bank on its own. Two shallow features in the base of the northern terminal might be pits or post-settings (F282; F284), or just accidental undulations in the bedrock. The entrance to the enclosure was presumably in this sector, possibly nearer the northern terminal where the ground is flatter, but no direct evidence was recovered.

The eastern and southern ditch segments

Three further ditch segments were investigated on the southern and eastern sides of the enclosure, one of them in the 2002 evaluation. In the southern segment, the lower part of the ditch penetrated bedrock (F70), whereas on the eastern side, it was dug entirely through clay (F273). The ditch was essentially V-shaped in all sections, but a steep step down in the base occurred on the south-eastern part of the circuit, whilst the southern segment was the only place to reveal clear evidence of a recut (Figure 4.14).

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The ditch was up to 2.3m wide and 1.25m deep, except above the step where it was only 0.5–0.7m deep. Above the primary fill [72; 445, up to 0.25m deep], was a thick horizon of silty clay with few stones up to 0.4m thick, which extended high up the sides in both sections, suggesting a gradual silting up [444; 71]. In the southern section, the ditch was subsequently recut close to its original depth, but this time in the form of a narrow basal slot (0.25m wide) with nearly vertical edges (F57). There was no conclusive evidence for a recut in the eastern section, or indeed at either of the terminals, so this may have been an operation restricted to this particular part of the ditch, necessitated either by greater depth of silting resulting from its position at the bottom of the slope, or a localised collapse, which an irregularity in the profile of the inner edge might suggest. The recut slot was filled almost to the top with sandy silt containing large stones [69, 0.32m deep], but although this resembles a palisade, there was no evidence that the stones represented packing.

The upper part of the ditch contained deposits of silty and sandy clay up to 0.35m deep with frequent small and occasional larger stones [65, 272, 253], presumably largely erosion from the bank. A hazelnut shell from the upper part of this horizon [253] gave a date of 810–540 cal BC (SUERC-10557). The top was infilled with silty clay [58; 256], from which a hone (sf 24) was recovered.

The palisade

The palisade ran concentric to the inner edge of the ditch for most of its length, set back by a distance of 3–3.5m. Assuming they were contemporary, the palisade might well have formed a revetment at the back of a bank. For the most part, the palisade trench was around 0.3–0.4m wide and 0.15–0.2m deep. At the northern end of the circuit, the palisade stops short of the ditch terminal by some 16–17m, but had by then become very shallow, suggesting it was truncated (see also CS3 below). On its western side, the palisade ran

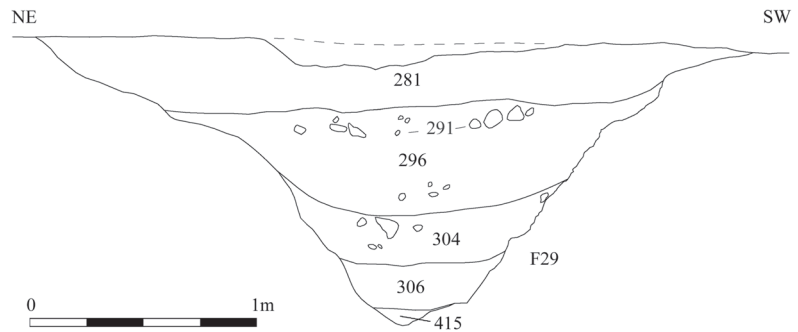
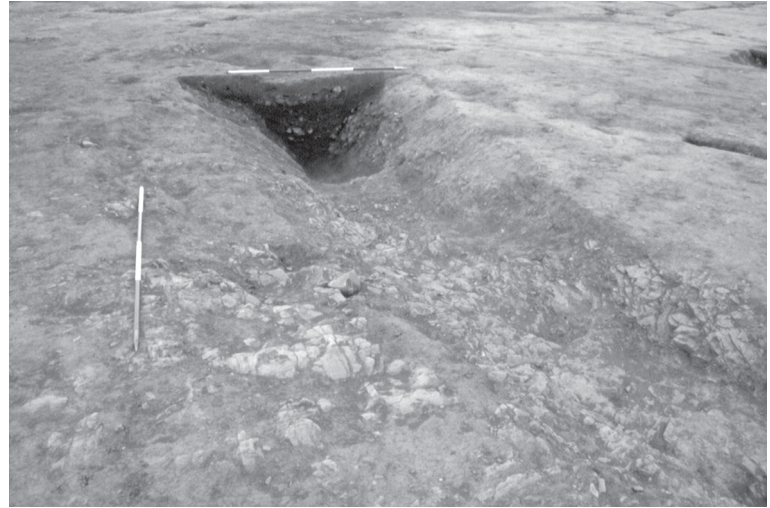


Figure 4.13
View and section of the northern ditch terminal (F29)

as far as the bedrock beside the ditch terminal, and had two phases, having been realigned here (Figure 4.15).

As elsewhere, the first palisade on the west side (F5) followed a curving course, but came rather closer to the ditch here. Except at one point near the northern end, the fill contained few packing stones, in contrast to the rest of the circuit, suggesting that they were mostly removed when it was replaced. At one point the trench was interrupted by a large natural boulder, which had not been removed. The westernmost 22m of the palisade was subsequently replaced by a nearly straight slot (F117), which cut across the original arc parallel to the ditch, which is itself fairly straight here, reducing the area thus delimited. The new slot lay further away from the ditch (6.25m), but in other respects appeared to join seamlessly with the rest of the circuit. Apart from the intersections, there was no evidence for wholesale replacement elsewhere, suggesting that rebuilding was restricted to the western

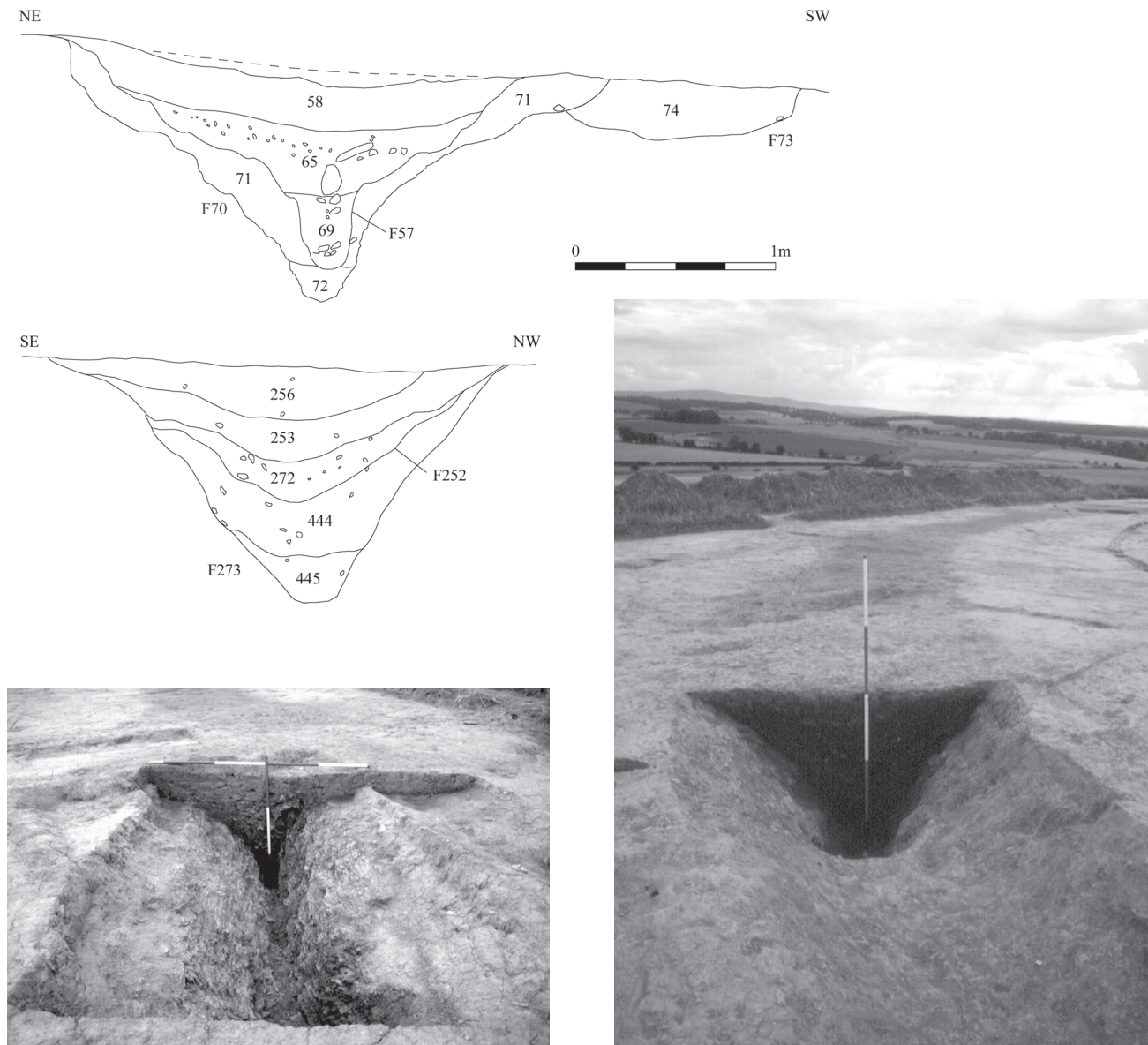


Figure 4.14

Views and sections of the eastern (F273) and southern (F70) segments of the enclosure ditch, the latter cutting early linear ditch (F73)

side of the circuit and probably occurred quite soon after the palisade was first erected.

The second-phase palisade (F117) and the original slot round the rest of the circuit (F13) contained many large rounded packing stones throughout their length, overlying a thin silty basal fill. Some of these stones were positioned vertically along the sides, others had slumped inwards, presumably following the removal or decay of the posts. A number of post-

holes, all containing packing stones, were identified within the trench in various places around the circuit (e.g. F11, F267) (Figure 4.16), although it is unclear whether they are primary or additions. Further post-settings can be inferred from gaps in or arrangements of packing stones, whilst a number of irregularities or 'bulges' in the plan of the palisade may denote more settings, or mark the limit of different constructional sections; indeed it is possible that the palisade was



Figure 4.15

The junctions of the inner (F113) and outer (F5) palisades, viewed from the north; packing stones are clearly visible in the fill of F113 and its continuation F13

stepped along its length on account of the slope, rather like the ditch.

Over a 10m length on the north-eastern side of the circuit, a steep-sided, narrow slot 0.15m wide (F371) was identified within the palisade trench; in it several stake-holes were distinguished and some small, regularly spaced packing stones hint at further stake positions. Either this slot marks the position of upright timbers in the palisade trench, and was only observed in this part of the circuit, or it was a localised repair.

Four radiocarbon dates were obtained for the palisade. Charcoal from the upper fill [14] and a *Triticum* grain from post-hole F11 (which also contained a flint flake, sf 65) both gave dates of 1010–830 cal BC

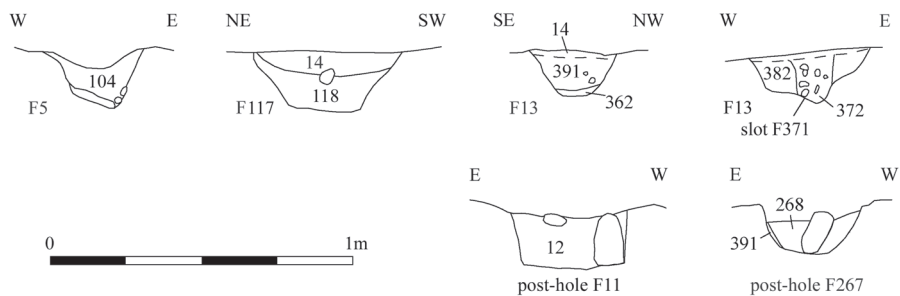


Figure 4.16

Sections through the palisade and integral post-holes

EXCAVATIONS AT STANDINGSTONE

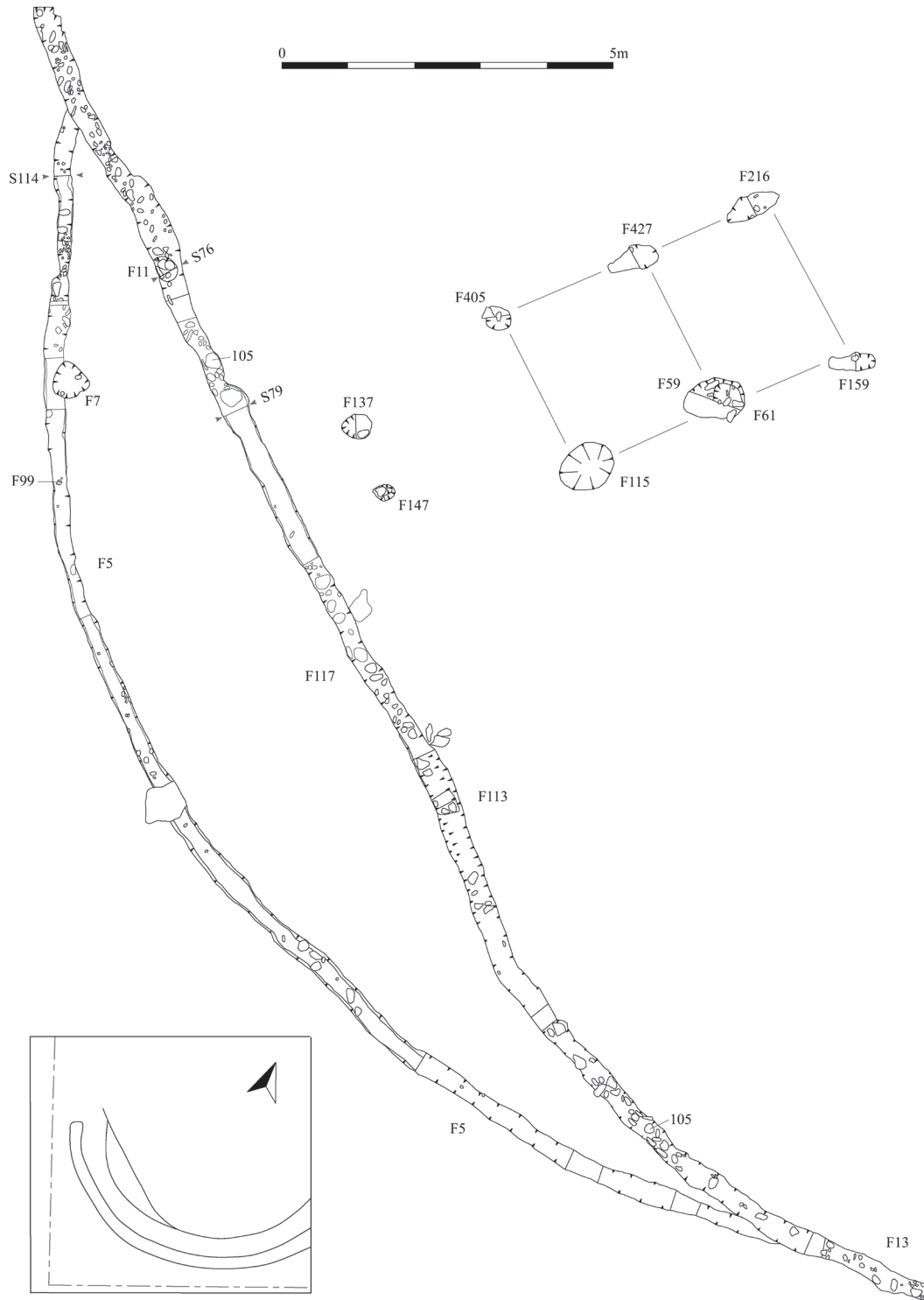


Figure 4.17
The west end of the palisade circuit and adjacent features

The only internal features that could be related to the enclosure lie in the zone of enhanced preservation at the western end of the palisade (Figure 4.17). The most obvious were a pair of post-settings with packing stones, over 0.2m deep (F61; F115), which stand 2.5m apart at a right angle to the reshaped palisade. Charred hazel nutshell from F61 gave a date of 1020–830 cal BC (SUERC-10539). F216 and F427 form a second pair. Along with two much slighter, more irregular post-holes (F159, F405) – if the latter is not part of the curvilinear structure mentioned above – these post-holes form a rectangular arrangement, perhaps a 6-post structure, measuring 4.4×2.5m. Also potentially contemporary with the palisade are a pair of smaller posts south-west of the first group (F137; F147), the latter cutting the curvilinear gully F342 described above.

IRON AGE OCCUPATION

Two groups of features on the edge of the bedrock in the centre of the interior, plus a third to the north, appear to represent the remains of circular structures belonging to the ring-ditch house tradition (Hill 1982b). Associated radiocarbon dates suggest they are part of a later re-occupation of the site, when the bank and ditch probably still formed a vestigial earthwork.

The main elements of curvilinear structures (CS) 1 and 2 are very similar in form and plan: they each comprise a curving, sunken-floored feature with a cobbled base, shallow at one end and becoming deeper and wider at the other, and an associated outer gully. CS2 was stratigraphically later than and replaced CS1. A third sunken feature seems to be the truncated remains of another similar structure.

Curvilinear Structure 1

The focus of CS1 was a curving shallow hollow F79 running approximately east–west, with its terminals curving northwards, cut into the outcropping bedrock. A short distance to the south was a clearly concentric curvilinear gully F106. No traces of the building could be found on the exposed surface of the bedrock to the north. Presumably, like the adjacent cluster of post-holes, the surviving elements of this building had been protected by the outcropping bedrock forcing the plough to be lifted at this point.

The curving outer gully F106 was 11.5m in length and described an arc of *c.* 12.5m in diameter (Figure 4.18). It increased in width (from 0.25m to 0.5m) and depth (from 0.05m to 0.12m) towards the west, where it abutted the bedrock. The poor preservation of its eastern end is probably due to the fact that it had been



Figure 4.19

(A) CS1 outer gully F106, showing post-setting F133; (B) view of CS1 sunken feature F79

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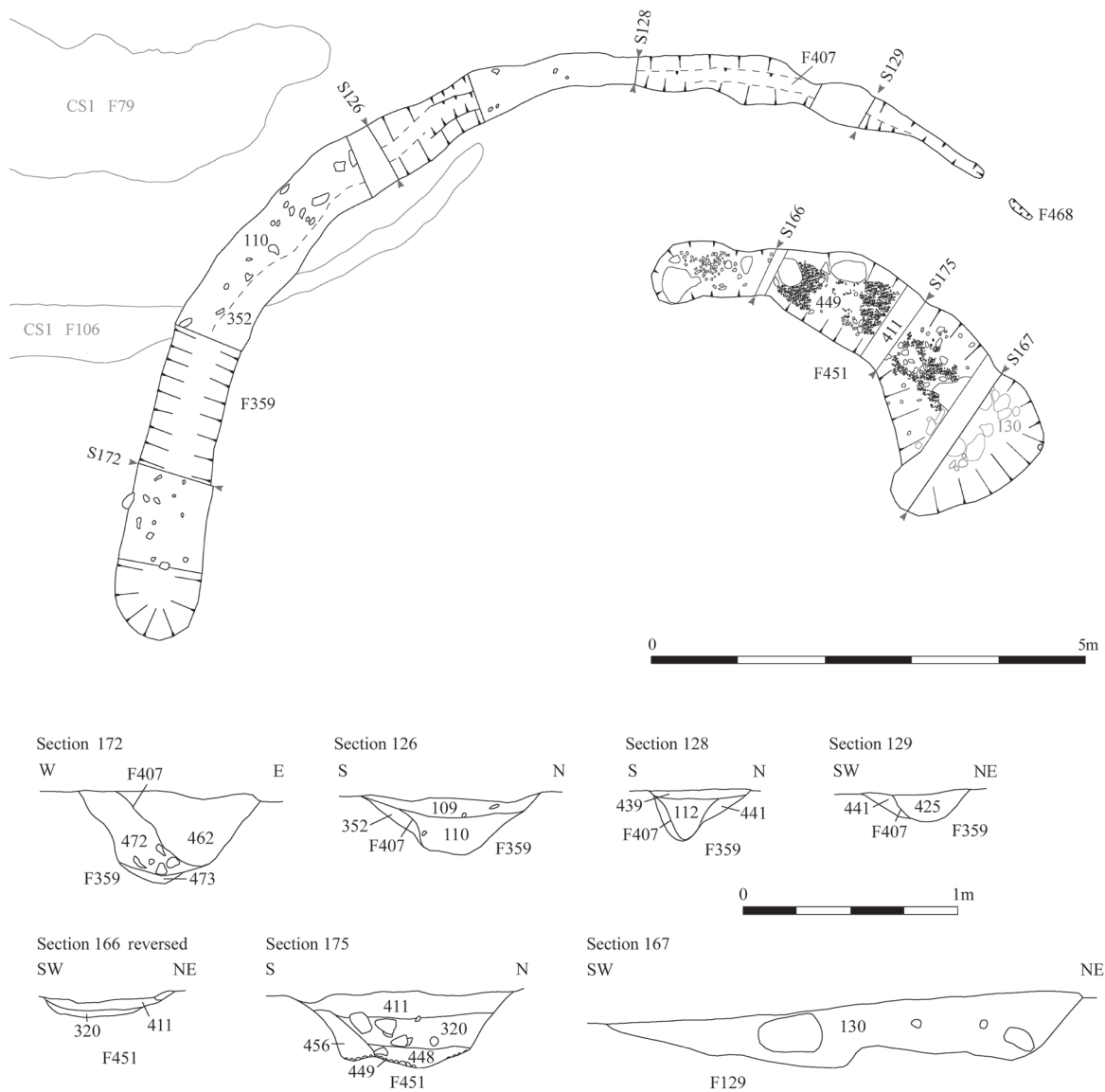


Figure 4.20
Plan and sections of Curvilinear Structure 2

truncated by CS2, which succeeded it. Gully F106 had a flattish base and was filled with clayey silt [94]. Incontrovertible evidence for uprights was restricted to a single post-hole F133, its packing stones clearly visible in the fill (Figure 4.19), but there were further groups of stones elsewhere in the gully, and there were two smaller post-holes (F328; F460) at the edge of the bedrock. Hazel charcoal from the gully fill [94] and birch charcoal from F328 both yielded dates in

the third to second centuries cal BC (SUERC-10541; 10559).

Whilst gully F106 might be thought to be structural and to represent the wall line of a large circular building, the base actually falls slightly more than the slope does, a phenomenon repeated in CS2. It might therefore have been designed to collect water. If so, the wall of the building probably lay just inside, and was perhaps constructed of turf or stone and post-hole

F133 may be secondary. On the other hand, possible remains of an eavesdrip (F353) were observed 0.4m outside gully F106.

Some 2m inside gully F106, closely following its alignment and curvature, was a large sunken feature F79, the largest of three such features at Standingstone. It comprised a curving hollow (6.5m long × 1.5m wide × 0.2m deep) with a flattish base, becoming deeper towards the western end. The base was covered with a metallised surface [80] using smaller, more compacted pebbles than in the other comparable structures, and in places incorporating the bedrock. The northern edge of F79 was formed by the bedrock, the surface of which was worn smooth in one area, perhaps suggesting its use for access. Three irregularities in the bedrock filled with natural clay along the northern edge (F416; F418; F420) are probably places where the rock surface had disintegrated and required levelling.

A single post-hole (F158, 0.15m deep) cut through the centre of the pebble surface is evidently contemporary with the building. It was sealed by a patch of dark grey-brown silty loam [97], rich in charcoal and presumably associated with the use of the sunken feature or the demise of the post. Along the inner edge of F79 were small slumps of redeposited clay, presumably eroded out of the adjacent surface whilst the sunken feature was in use. The character of the main fill – deposits of sandy loam with large stones and charcoal [81=96; 82] – implies that the feature may have been deliberately infilled when CS2 was built. Birch charcoal from [82] gave a third date in the same range as before (SUERC-10540).

A few other features between F79 and the outer gully may belong to CS1. They included an elongated scoop F429 containing a small post-hole (F435) and three stake-holes (F431, F433, F437), perhaps the remains of a screen or even the inner face of the wall. Another post-hole (F220) with a charcoal-rich fill [123, 124] 3.5m away from the first, occupies a similar position 1.5m within the outer gully, suggesting they may be the vestiges of an inner post-ring. The scoop pre-dated a small patch of cobbled surface [354], which may be contemporary with CS2. Three other post-holes might belong with either CS1 or with its successor: F422 appeared to cut the southern edge of F79 and is a potential pair for F133 if this is secondary to the gully; F218 lay just inside the outer gully; whilst F458 cut into the edge of the bedrock just outside F106.

Curvilinear Structure 2

CS1 was replaced by a similar structure (CS2), the outer gully of which clearly cut that of CS1 towards its eastern end (Figure 4.20). This time, only the northern part of the structure survived, its preservation again assisted by proximity to the bedrock outcrop, leaving the downslope part to be ploughed away over time. From the evident truncation of the CS1 gully within CS2, it is likely that the ground was levelled when the later structure was built.

The outer gully of CS2 (F359) was similar to the outer gully of CS1 and defined an almost identical area (c. 12.75m in diameter), although a greater length (14m) survived and it was slightly more substantial.

(A)



(B)



Figure 4.21

(A) View of CS2 from the west, showing outer gully F359 cutting through CS1; (B) view of sunken feature F451

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Like CS1, the downslope (southern) end was the deeper and wider (Figure 4.21), whilst the other end petered out; a slight feature (F468) disturbed by a burrow is probably its continuation.

The base of F359 fell even more than the outer gully of CS1, 0.25m more than the natural slope, and 0.7m in all. The gully had sloping sides and was filled with silty clays with few stones; unlike CS1, it had at some stage been recut as a narrower feature with steeper (but still sloping) sides (F407), lying towards the outer side of the original gully. The recut too contained silty clays and small stones, except at the southern end, where

there was a concentration of larger stones, though nothing to suggest a structural arrangement. It thus seems unlikely that this gully functioned as a wall slot, whilst the silting, the need for a recut and the lack of any continuation beyond the terminal suggest that the feature was open and that any building stood inside it. Charcoal from the recut near the middle of the gully [110] gave a date of 370–110 cal BC (SUERC-10546), but dates on two nutshells from the southern terminal were earlier and inconsistent (SUERC-10560; 10561) implying either that residual material had become incorporated or that earlier features were disturbed by the gully.

Two metres inside the northern end of the gully, echoing its curvature, was another sunken-floored feature F451, similar in form to F79 in CS1, but slightly smaller (5m long) and with the deeper, wider end to the east. Except at this end, where the bedrock was exposed, its base was surfaced with tightly packed cobbles [449], although an oval gap filled with compacted soil in the middle section might mark the position of a post-setting like F158 in CS1. A slump of natural clay [456] had spilled over the cobbles along the inner edge of the feature, over which silty clay deposits formed [448, 452]. The main fill was stonier [320] and at the east end – where the feature cut into bedrock – there were numerous large rounded stones [130]. The upper fill was silty [411]. Charred grain from [130] gave a date of 360–50 cal BC (SUERC-10547) consistent with the latest date from the outer gully.

No other features survived within the projected area of CS2, apart from an isolated post-setting F139 4m south-east of F451, itself replaced by a slightly larger post-pit F141, both with packing stones. This setting lies on the same arc as the sunken feature and might form part of a post ring of 8.5m diameter.

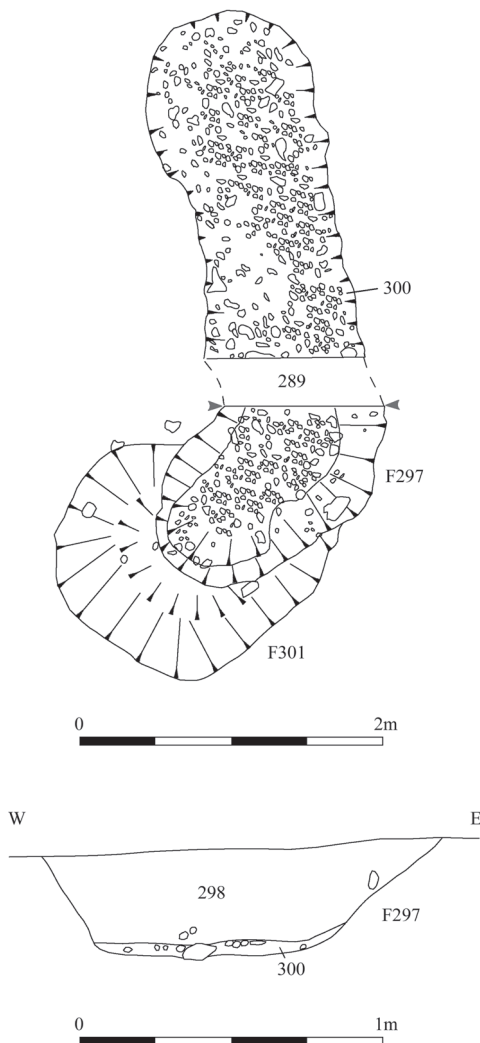


Figure 4.22

Plan and sections of Curvilinear Structure 3

Curvilinear structure 3

A third sunken-floored feature was located in the northern part of the enclosure. Although no associated outer gully was found, the overall resemblance to the features within CS1 and CS2 suggest that this was part of a third circular structure. F297 took the form of an elongated hollow aligned north-west to south-east, with the deeper, southern end turning quite sharply towards the south, where it broadens out considerably (F301) (Figure 4.22). A compact cobbled surface covered the whole base [300], apart from a patch mid-way along the inner edge reminiscent of

the break in F451. The feature was filled with dark brown silty clay with charcoal flecks. The southern end was comparatively rich in carbonised cereals [298; 302], one of which produced a date of 370–100 cal BC (SUERC-10558), consistent with the dates from the other curvilinear structures.

If F297 was like the other sunken-floored features, it could be the inner element of a building of comparable size to CS1 and CS2, but the only surviving features which might conceivably be associated are post-hole F401 and a slighter feature F470 near the north-east end of the palisade. CS3 would have been located over any continuation of the palisade and/or bank through this area; indeed, as suggested for CS2, it is quite possible that a platform cut for CS3 removed further traces of the palisade. CS3 would seem too close to CS2 to have stood at the same time, although it could have been contemporary with CS1.

DISCUSSION

The excavation at Standingstone revealed a long history of habitation, including several pre-enclosure phases, the construction of the ditch and palisade, and finally an 'open' settlement. A minimum of five periods of occupation may be defined, although some isolated features cannot be related to the sequence. A detailed chronological model is developed in Chapter 9.

1. Neolithic

Pit F56 produced the earliest evidence of occupation, with radiocarbon dates indicating a later Neolithic time span for its infilling (2880–2490 cal BC). Sherds of pottery, a few flints, naked and hulled barley, and emmer, as well as the remains of an apple core, were recovered, suggestive of nearby settlement. No other features can be attributed to this phase of activity, but a radiocarbon date of 2560–2140 cal BC from a later deposit may suggest at least sporadic further occupation in the Neolithic.

2. Early Bronze Age

In the Early Bronze Age the hillside became a focus for burial, represented by two graves containing cinerary urns at the eastern side of the site. The more complete urn contained the fragmentary remains of an individual over nine years old, buried between 1680–1490 cal BC. Whether a tiny flint flake and chips of reddish stone found with the bones were

accidentally gathered up along with the pyre material or deliberately included is unclear. A concentration of small features on the eastern side of the site may reflect associated activity. It might be tempting to relate a pit (F41) with *in situ* burning, 25m away, with the cremated remains, but other pits containing burnt material have later radiocarbon dates. The truncation of the inverted urn provides a useful measure of the amount of overburden potentially lost to ploughing.

3. Later Bronze Age open settlement?

At some point, a linear boundary, possibly of more than one phase, was constructed across the southern part of the site; this remains undated, other than preceding the enclosure. This may have been a field boundary but is perhaps more likely to be linked to a scatter of other pre-enclosure features to the north, dividing them from open ground to the south. These other early features include pits containing burnt material, hints of circular structures, and a number of post pairs, especially in the zone of better preservation in the lee of the bedrock, which taken together suggest the existence of an open or semi-open settlement. Radiocarbon dates place this occupation in the later part of the Bronze Age. The coincidence of the linear boundary and later enclosure circuit might imply that the earlier feature was a point of geographical or historical reference.

4. Late Bronze Age enclosure

In the tenth or earlier ninth century cal BC, a ditched enclosure was constructed, accompanied by a palisade, which probably marked the back of a bank. From the radiocarbon dates, the use of this enclosure was short-lived, possibly as little as a generation (Chapter 9), although long enough for the palisade to be realigned on the south-west side and for the ditch to be recut at the lowest point on the circuit where most silting would have occurred. The ditch itself was stepped down the hillside rather than following the slope. The reshaping of the palisade appears to have taken place rapidly, since most of the circuit was retained; there is some evidence for segmentary construction, different sections being marked by larger posts.

Whether the enclosure circuit was originally continuous is unclear. No evidence for the boundary was found in the wide gap between the surviving ditch terminals where the bedrock outcrops. A similar gap in the ditch circuit may exist at Hedderwick, but, given the stepping of the Standingstone ditch and

degree of plough erosion, it is possible that a shallow segment of ditch has been lost. On the other hand, the surviving western terminal did yield five of the six cobble tools from the site and it is reasonable in any case to assume that the entrance was located within the bedrock area.

Erosion and/or the short lifespan of the enclosure may help explain the paucity of internal features, which were restricted to a few post structures in the south-western part of the site, whilst part of the palisade appears to have been lost to a later phase of occupation.

5. Later Iron Age 'open' settlement

After a gap of some centuries, the vestiges of the earthwork were re-utilised for a settlement, represented by three large circular structures. At least two building phases are attested in the later centuries BC. Detailed evidence for the construction of these buildings does not survive, but there is some indication that the stances were levelled beforehand, obliterating earlier features such as the palisade. Two of the structures preserved partial outer gullies, but these were not dug level, and whilst one contains some evidence for uprights, the other appears to have stood open. In addition, if the outer gully of CS2 originally surrounded the whole

structure, it is difficult to explain why more of the circuit does not survive, given the depth of the surviving terminal on the downslope side, and the gullies may always have been partial. Assuming the gullies defined circular buildings, rather than just being shelters, the wall line must have stood just inside.

All three structures are characterised by curving sunken-floored features with cobbled surfaces. The hollows were apparently accessed from the inner side and their use may have been over quite a long timespan, to judge from an area of worn bedrock in CS1. Two of them appear to contain evidence for uprights, perhaps even the remains of an inner post ring. No evidence of function was obtained, but the sunken features are somewhat reminiscent of the stone paving seen inside ring-ditch houses known elsewhere in south-east Scotland (e.g. Hill 1982b) and the structures overall are of comparable size. Excluding the grain cache beneath the bank of the Late Bronze Age enclosure, the environmental samples from the three circular structures were amongst the richest from the excavation, implying that cereal processing took place in or near these structures.

Like the previous phases, the Later Iron Age occupation was relatively sterile in terms of artefacts. There is no evidence for later use of the site apart from recent cultivation.