

Edin's Hall fort, broch and settlement, Berwickshire (Scottish Borders): recent fieldwork and new perceptions

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ABSTRACT

A survey and excavations were undertaken in 1996 at Edin's Hall fort, broch and settlement — a monument in the care of Historic Scotland — in response to evidence of rabbit damage to the earthworks. The work has shown that the evolution of the site is considerably more complex than had been recognized hitherto. The broch may have been constructed during the lifetime of the settlement. The status and wealth of the site are discussed, and considered in relation to aspects of Roman/native interaction. The project was wholly funded by Historic Scotland.

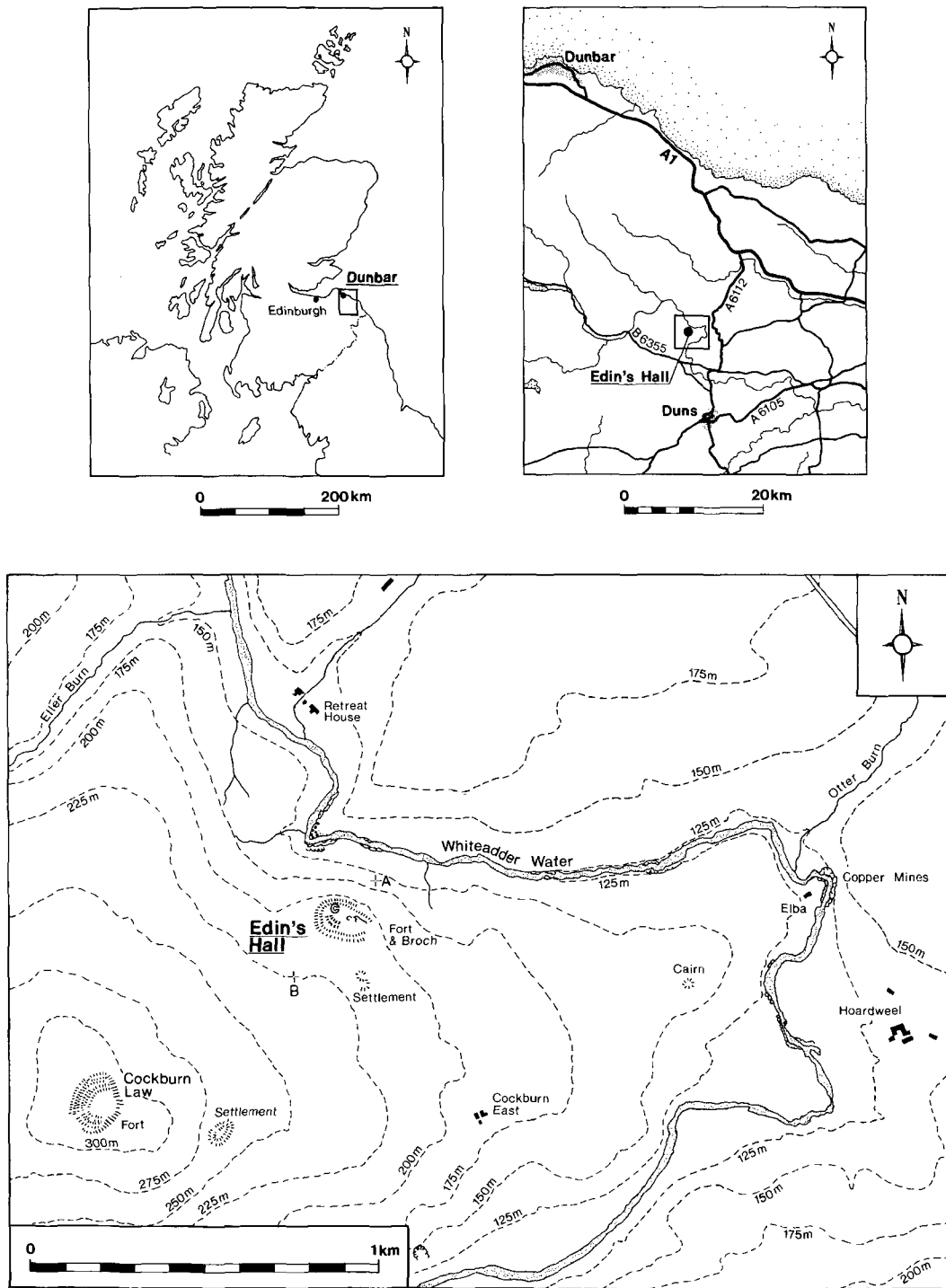
INTRODUCTION

This report describes the results of archaeological fieldwork undertaken by the Centre for Field Archaeology (CFA) between January and March 1996 at Edin's Hall, Berwickshire (NMRS NT 76 SE no 6; NGR: NT 773 601). The work was commissioned by Historic Scotland in response to evidence of substantial rabbit damage to the earthworks across the site. Rabbit infestation has recently been recognized as the greatest threat to earthwork conservation in eastern Scotland (Barclay 1994; Barclay & Foster 1996).

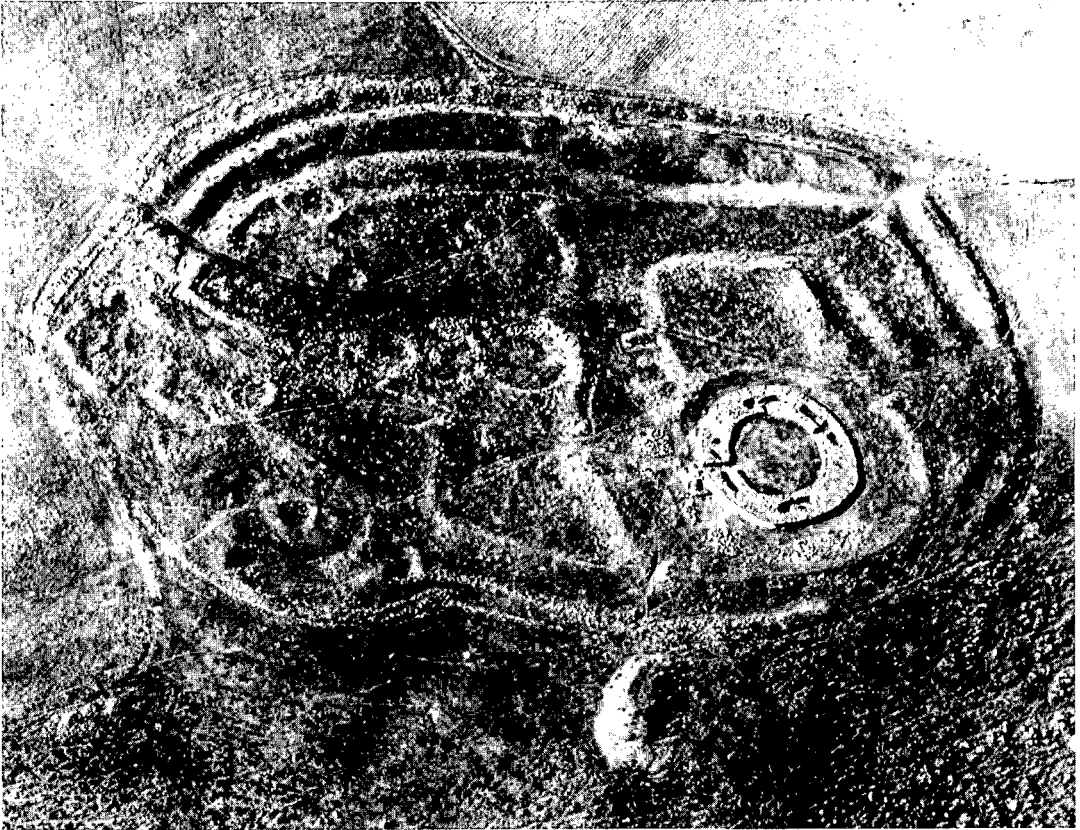
Edin's Hall lies on the north-eastern slopes of Cockburn Law, above a steep slope rising from the Whiteadder Water. It lies within a rich archaeological landscape containing a hillfort on the summit of Cockburn Law, cairns and settlements (illus 1). The monument has generally been recognized to comprise three distinct components (illus 2 & 5): a fort defined by a double rampart and ditch system, a broch set within an enclosure, and a roundhouse settlement with associated enclosures and yards. The terms 'fort' and 'broch' are used in the descriptive section of the report as a convenient shorthand: the applicability of these terms to Edin's Hall is considered further within the Discussion section of the report.

A basic sequence of construction for the main elements of Edin's Hall has been proposed for the site by previous researchers on the basis of the earthwork evidence, and a broad chronological framework for this development has been offered on the basis of the character of the excavated structures and the finds from them, as well as from the evidence of comparable sites. The fort has usually been regarded as the primary construction, with the broch representing

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ILLUS 1 Site location maps, showing Edin's Hall and other monuments in its vicinity (Based on Ordnance Survey maps © Crown copyright)



ILLUS 2 Aerial photograph of Edin's Hall, from the north (*Royal Commission on the Ancient and Historical Monuments of Scotland: BW/2969/s* © Crown copyright)

a later addition. The settlement has been variously interpreted as contemporary with, or later in origin than, the broch.

RECENT HISTORY OF EDIN'S HALL

There are few archaeological monuments in southern Scotland which have attracted as much antiquarian interest as Edin's Hall. Over the last 150 years the site has been a haunt for field trips of the Berwickshire Naturalists' Club (HBNC 1848, 264; 1853, 138; 1860, 167–70; 1861, 245–8; 1870, 109–10, 117–18; 1881, 443; 1906, 23–7; 1921, 265; 1937, 273–4; 1957, 77). Detailed descriptions and site plans, of varying quality, of the remains have been made on several occasions since the mid 18th century (notably Christison 1895; Stuart 1871; G Turnbull 1857; J Turnbull 1881), with speculations proposed — at times outlandish — regarding the origins of the broch (eg G Turnbull 1857; Walton 1959). Excavations at the site in the 19th century (J Turnbull 1881) provided valuable, if basic, information regarding the nature of the structures present, and the current appearance and condition of the monument owes much to this work. This wealth of observation allows the changing condition of the monument, as well as developing perceptions of the function and date of the broch, to be examined.



ILLUS 3 Sketch of Edin's Hall broch, pre-1870 (Reproduced by permission of the Keeper of the Records of Scotland: MW 1/656)

The earliest published notices of Edin's Hall are brief and highly confused (*Scots Magazine*, vol 26, 1764, 431; OSA 1791, 389). The first survey of the site was conducted around 1793 by John Blackadder, a Berwickshire surveyor and cartographer (unpub MS, 1834: cited by G Turnbull 1857). Notwithstanding the problems of their reliability, these early accounts indicate that the broch survived in a significantly better condition at the end of the 18th century than was evident 50 years later. Blackadder noted that, between the date of his survey and the preparation of his manuscript (c 1793 and 1834), the condition of the broch had deteriorated markedly through the use of the structure as a quarry for stone to construct field walls nearby (*ibid*). This robbing had led to the removal of several notable architectural features of the broch and a build-up of rubble around and over its walls, obscuring many of those features that remained (G Turnbull 1857, 9).

Antiquarian interest in the site flourished in the mid 19th century, following the publication of a detailed description of the remains by George Turnbull (1857), the owner of Abbey St Bathans estate from 1807 to 1855 (HBNC 1923, 270). Turnbull (1857, 9) noted the continuing degradation of the broch, owing to what he believed were the activities of treasure hunters. During the 1860s the Berwickshire Naturalists' Club repeatedly called for the preservation of the monument in response to its continuing dilapidation, at first by proposing the construction of a fence around the site (HBNC 1863, 168–9) and subsequently by both fencing and clearing out the broch (*ibid*, 246). Plans for raising a subscription to fund the clearance were drawn up (Stuart 1871, 45–6) and the Society of Antiquaries of Scotland contributed the sum of £5 in 1869. The excavations which ensued were conducted by John Turnbull, son of George and inheritor of the Abbey St Bathans estate (1855–91). The broch was examined during 1869–70 (Lefroy 1870; Michie 1869), with various stone structures and enclosures to the east of this being investigated in succeeding, though unspecified years (HBNC 1872, 48, 110). A detailed account of the site, and the results of the clearance works, was published subsequently (J Turnbull 1881). The positions of several excavated trenches are still visible on the ground.

A Guardianship agreement saw the site taken into state care in 1887 (SRO MW.1.656). Following this, and prior to 1906 (HBNC 1910, 27), the walls of the broch were partly restored, although no documentary sources could be traced by the author relating to the precise nature or date of the works undertaken. No other elements of the site appear to have been consolidated. Nor do the restoration works appear to have increased the height of the broch wall-head around its circuit. Present wall heights are variously less, the same, and greater than those previously recorded by John Turnbull (1881) at the same locations (see below).

A sketch of the broch contained in a Ministry of Works record of 1885 (SRO MW.1.656; illus 3) depicts the wall as unevenly preserved, not fully exposed, and partly turf-covered; it also records piles of rubble within the central court. This suggests that the sketch was made before Turnbull's excavations. The sketch may be a tracing by the Ordnance Survey which is mentioned by Stuart (1871, 44): the same Ministry of Works record also contains a site plan prepared by Stuart prior to Turnbull's excavations. The condition of the broch wall as depicted in this sketch contrasts with that of photographs of the broch published by the Royal Commission early in the 20th century (RCAHMS 1915, figs 60 & 61): these show the central court and wall-head of the structure to be more or less in their current condition.

CIRCUMSTANCES AND OBJECTIVES OF RECENT FIELDWORK

In the last two decades the condition of certain earthworks at Edin's Hall has deteriorated significantly owing to their infestation by rabbits. The visibility of the rabbit population at the site is reflected in a recent novel by John Herdman (1993, 45) which describes a lovers' tryst at Edin's Hall, consummated within the broch, 'on the thick rough grass amid the sheep and rabbit droppings'. The growth of gorse bushes on the fort ramparts and within the excavated structures in recent decades had exacerbated the problem by affording cover for the rabbit population, and has itself formed a further source of damage to the earthworks (eg illus 4). (At the time of writing the site has been almost cleared of gorse bushes.) In response to this continuing threat, Historic Scotland commissioned CFA to assess the extent of rabbit-derived damage to the site, as a basis for the implementation of ameliorative land-management policies. This report is not the place to deal with the wider issues of management of rabbit-infested monuments (see Dunwell & Trout 1999) and a fuller report of damage to the site has been submitted to Historic Scotland (Dunwell 1997). In any case, the fieldwork described here also had other aims. The four objectives of the project were:

- 1 To detail the extent and degree of rabbit (and other) damage to the monument visible from surface traces.
- 2 To provide data on the degree of information-loss caused by rabbit damage through the excavation of comparable samples of damaged and undamaged sections of the enclosing works and any other areas affected.
- 3 To obtain information relating to the date, sequence and methods of construction of the monument, to its function, and to the possibility of ritual deposition within the ditches and elsewhere.
- 4 To assess the palaeoenvironmental potential of the site.

STRATEGY AND WORKING METHODS

The fieldwork at Edin's Hall had four principal components: topographic survey, damage survey, sample excavation and palaeoenvironmental assessment. In addition to these elements, and at the instigation of Historic Scotland, five pits, 0.75 m wide and 0.5 m deep, were excavated for the insertion of rabbit drop-traps along the fence-line immediately south of the site. No features of archaeological significance were identified in any of these pits, and they are not considered further in this report (see Dunwell 1996 for details).



ILLUS 4 Edin's Hall, 1997, looking north-west from break D (see illus 6); notice extensive rabbit burrowing and vegetation

Topographic survey

Several site plans have been produced previously (G Turnbull 1857; Stuart 1871, pl I; J Turnbull 1881, pl II; Christison 1895, fig 25; RCAHMS 1915, figs 58 & 59; RCAHMS unpub, 1951–5), but these vary in both their completeness and their accuracy and interpretation of detail. The most recent of these omits several features not considered at that time to be directly related to the occupation of the site. The whole site was thus resurveyed in order to produce a new plan (illus 5), attempting a more comprehensive coverage of the structural remains, and including several features not previously mapped. The reduced vegetation cover caused by grazing rabbits revealed the foundations of features not always previously detectable in a richer sward, thus allowing the reasons for discrepancies between previous surveys to be assessed.

Damage survey

A detailed written, photographic and survey record was made of the nature, distribution and severity of rabbit and other damage across the site. A colour-coded map was produced showing the distribution and severity of damage across the monument (see Dunwell 1997).

In general the south-western quadrant of the fort ramparts and the southern side of the broch enclosure had been densely burrowed, with scarring and slumping of earthwork profiles evident on certain south-facing slopes (illus 4). Other earthworks had been penetrated less intensively. By contrast, the interiors of the broch, fort and settlement showed little more than surface pitting and scrapes, with occasional burrows and pits excavated into and beneath wall faces exposed by John Turnbull's excavations. The shallowness of the soil profile above bedrock in these areas, generally no more than 0.3 m, explains the absence of extensive burrowing.

Sample excavation

The distribution of damage suggested that the following areas should be examined by sample excavation in order to assess the effects of burrowing: the southern fort ramparts; the southern side of the broch enclosure; and the interiors and walls of structures.

In addition to the management objective, the trenches were intended to address certain archaeological issues. Examination of the fort ramparts and broch enclosure aimed to obtain information on their methods of construction, and to provide dating evidence (whether via artefacts or radiocarbon samples) and materials suitable for palaeoenvironmental analyses. Furthermore, no previous investigation of these elements of the site is known. The examination of previously excavated roundhouses was put forward to assess the survival and character of deposits of archaeological significance within them, and to examine the structural characteristics of their walls. The sample examination of other eroding areas within the fort ramparts was proposed to allow an overall assessment of the archaeological potential of the site.

Nine excavation sites (Trenches 1–9, *illus 5*) were selected according to the above criteria. Weather conditions were generally inclement, with three heavy snowfalls, frequent frosts and high winds hindering the work (the timing of the fieldwork had been determined by budgetary considerations). The excavation was intended to last for four weeks, but owing to weather conditions was completed intermittently over a period of six weeks. The impact of this severe weather was that Objective 3 (above) was fulfilled only to a limited extent.

Palaeoenvironmental assessment

The following approaches were employed in the palaeoenvironmental assessment of the site: sampling and analysis of organic deposits, turf deposits preserved beneath and within ramparts, and wood charcoal suitable for radiocarbon dating; identification of other unexcavated areas where suitable material may survive, both within and in the immediate vicinity of the site.

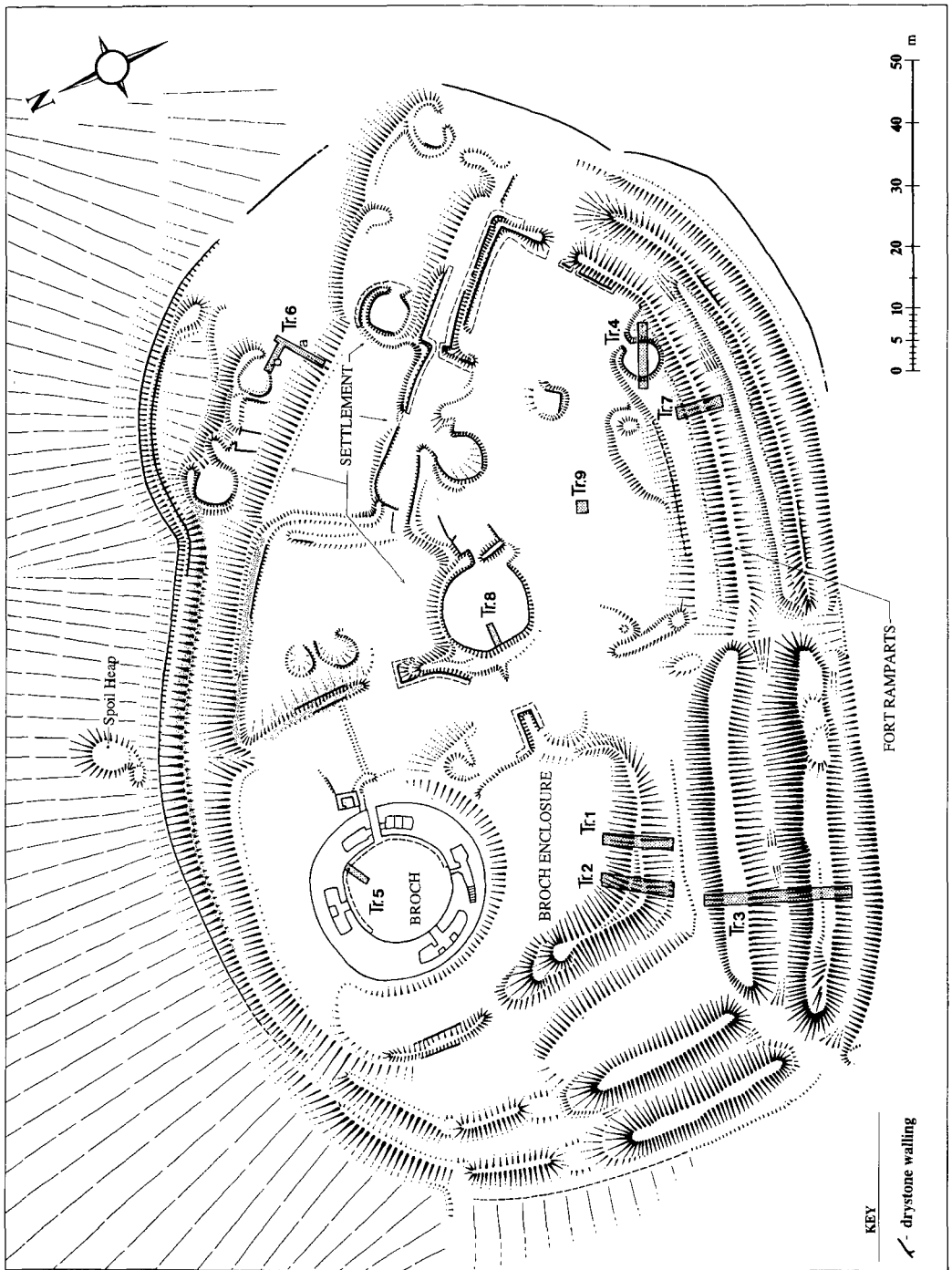
SITE DESCRIPTION

The following account of the remains currently visible at Edin's Hall attempts, where possible, to incorporate the evidence of antiquarian accounts for features no longer to be seen. Additional information resulting from the current excavations is presented in a separate section.

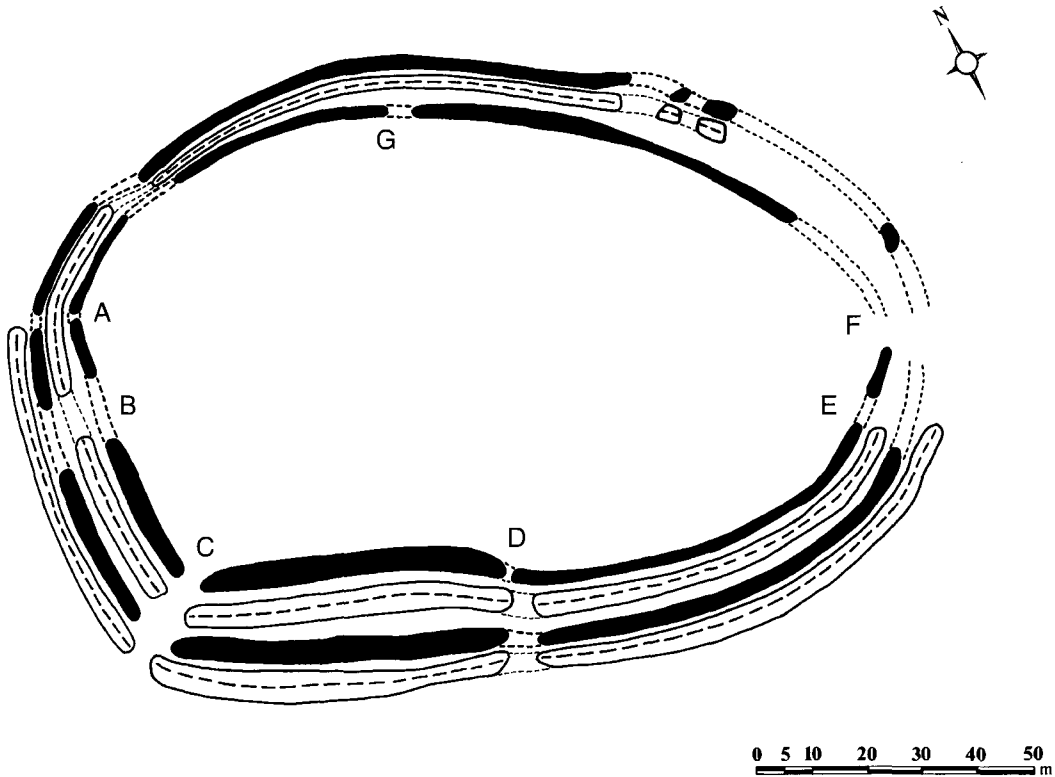
THE FORT (ILLUS 5 & 6)

The earliest visible components of the site comprise the earthworks defining the fort. In plan view they form a flattened oval enclosing an area with maximum dimensions of 140 m east/west by 75 m. (The similarity of the overall site plan to an human ear was remarked upon by Christison 1895, 160.) The surviving earthworks display a range of characteristics around their circuit, and are punctuated by at least seven breaks (A–G, *illus 6*). There have been no previous attempts to excavate and record any part of these enclosing works, although a section was cut through the inner rampart to allow spoil removal during the 19th-century excavations (Turnbull 1881, 97; most probably at G on *illus 6*; Turnbull's spoil-heap is depicted on *illus 5*).

The southern half of the fort is bounded by two ramparts with external ditches. Between breaks B and D the earthworks are particularly substantial, standing up to 4 m in relief between crest of rampart and base of ditch. Here the ramparts appear to be of earthen, dump composition



ILLUS 5 Survey plan of Edin's Hall



ILLUS 6 Schematic plan showing the outline of the primary fort

(this was confirmed by excavation), although with a noticeably stonier content over a span of 20 m immediately west of break D. Elsewhere on the south and west sides the earthworks are in the order of 2 m in total relief; the ramparts appear as low stony mounds, with lengths of stone facing indicating that they represent degraded walls, and the ditches are narrower. Although the outer ditch on the western side was a distinct surface feature in the 19th century (eg Turnbull 1881, 85; pl II), it is for the most part now completely infilled as a result of the cultivation of adjacent land and is detectable only as a discrete banding in vegetation cover.

For the northern half, the enclosing works comprise two ramparts with a medial ditch. The outer rampart is preserved as a low mound 2–3 m wide on which lies a band of rubble following a slightly sinuous alignment (stippled on illus 5). Fragments of the outer rampart have also been incorporated within the secondary structures built over the northern enclosing works (see also illus 8, nos 7–9). The inner rampart has been substantially modified. Where it defines the northern side of the broch enclosure (illus 5) it survives mainly as a north-facing terrace, possibly having been deliberately levelled during the creation of a foundation platform and surrounding yard for the broch. To the east of the broch enclosure, the inner rampart appears to be partly overlain by a length of degraded paddock wall associated with the settlement (stippled on illus 5).

At the eastern end of the site landscaping associated with the construction of the settlement appears to have removed almost entirely an arc of the earthworks (c 30 m of the inner rampart and 70 m of the outer rampart).

Entrances

Opinions have been varied as to which, if any, of the six visible breaks (illus 6, A–F; excluding modern break G) formed an original entrance to the fort. Records held in the NMRS propose the south-west break (C) as a primary feature, whereas G Turnbull (1857) and more recently A Ritchie (1988, 74) have argued that the walled passage associated with the settlement (illus 5 & 8) passes through the fort ramparts at the site of an original entrance on its east side (F). John Turnbull (1881, 86) and Christison (1895, 163) regarded both breaks C and F as original. Other entrances have generally been regarded as secondary.

Break C does appear to be a primary feature, as there is nothing to suggest that the fort ditches had been once continuous in this sector and subsequently causewayed. It would be a simple task to investigate this by excavation. The argument that break F is an original entrance stems from the, often implicit, assumption in antiquarian accounts that the fort and broch were a single construction, and thus that the walled passage leading to the broch must be primary in the construction sequence. There is no justification for this given that the passage is demonstrably associated with the settlement (and not a primary feature of that settlement; see further below), and especially as traces of the fort ramparts were probably entirely removed elsewhere in this sector during the development of the settlement.

There is no necessary reason, however, why break C should represent the only original entrance to the fort. Multiple entrances are not uncommon features of forts between Tyne and Forth (eg Christison 1895; RCAHMS inventories), and the fort on the summit of Cockburn Law (illus 1) has three entrances (Christison 1895, 158–60; fig 23; RCAHMS 1915, 65, fig 62). It is possible, of course, that break F marks an original entrance position, but this requires demonstration by excavation.

Of the other breaks, none is original to the fort. The low remains of ramparts can be identified running across A and B, and the outer fort ditch appears to run unbroken past break B. Prior to a survey by the Royal Commission in the 1950s, only B was recorded, and only on James Home's 1893 unpublished sketch of the site (SRO: RHP37897/1–2). Similarly, break E appears to have been created by cutting the fort earthworks. Break D is not original, and has been created by levelling the ramparts and causewaying the ditches (cf Turnbull 1881, 87). Some or all of these secondary breaks of course may have been created in antiquity, associated with alterations to the original form and function of the site.

Internal features

Nothing definite is known of the nature and location of any primary internal features of the fort. The majority of the visible stone-walled structures overlie the fort earthworks, and are demonstrably secondary, and those which do not are of a similar construction method, suggesting that they are unlikely to relate to different phases of use of the site. Previous excavations in southern Scottish forts suggest that the fort earthworks at Edin's Hall were probably constructed during the mid to later first millennium BC, with occupation within the ramparts in timber-built roundhouses (as noted at the fort and broch at Torwoodlee: Piggott 1951). This type of structure would not generally leave recognizable surface traces, except where stances had been created by scarping of slopes, and would probably not have been detected during the early excavations. The present excavations detected some pertinent evidence in this regard (below). In addition, the extensive secondary development of settlement within the fort quite possibly obscures any traces of earlier activity.

External feature

Early sources mention the presence of a wall running westwards from the south-west entrance to the fort (at C, *illus 6*) for 200 m as far as a ravine. Parts of this foundation can still be traced (*illus 2*). There seems no reason to believe that this feature is related to the fort, and an explanation as a more recent field boundary is more appropriate. The remains of a drystone wall run immediately outside the south and east sides of the fort, and are continued as a terrace to the north; these also appear to be of no great antiquity.

THE BROCH AND ITS ENCLOSURE

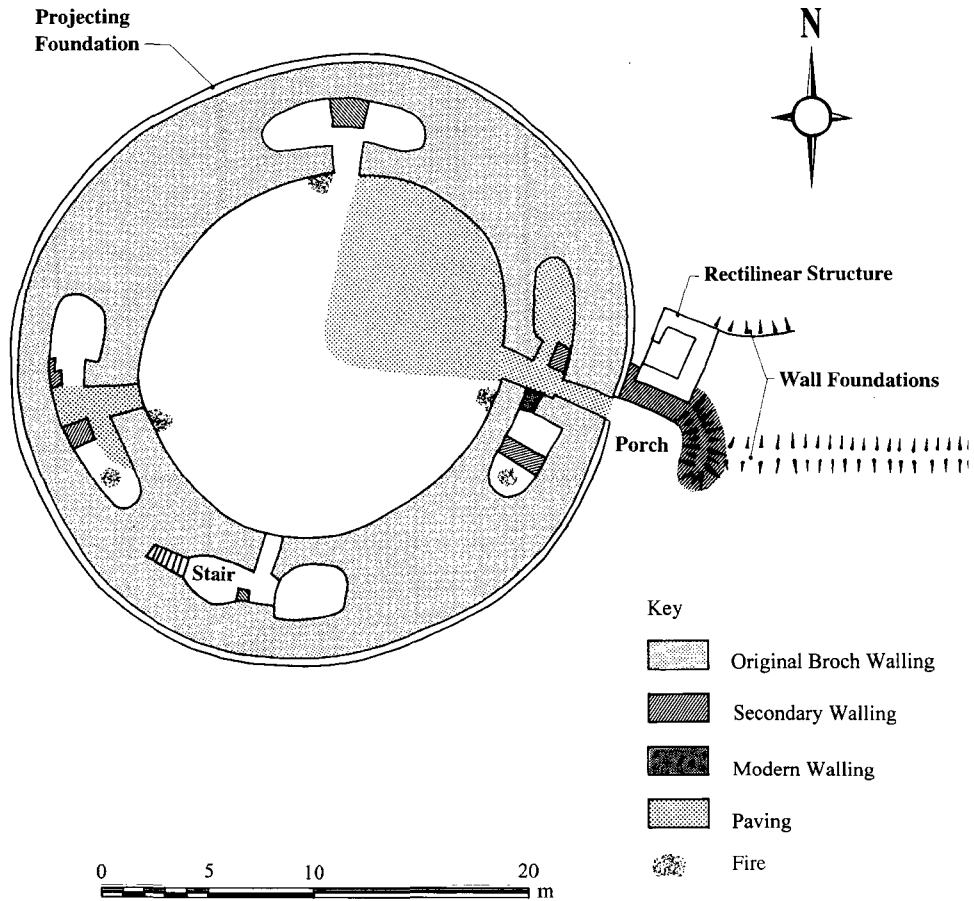
The broch lies within a sub-rectangular enclosure in the north-western part of the interior of the fort (*illus 5*). Its present appearance reflects its excavation and partial restoration in the 19th century, and these factors must be taken into account in its description. Although detailed accounts of this structure have been published previously (eg Turnbull 1881, 87–93; RCAHMS 1915, 60–4; to these sources the following account owes a considerable debt), a fresh description is warranted to include dimensions in metric measurements, to consider information on its former appearance as an aid to structural reconstruction, and to incorporate details not previously noted. For brevity, most of the dimensions of the internal features of the broch are summarized in Table 1.

TABLE 1
Dimensions of intramural features of the broch

Feature	L (m)	W (m)	H (m)	H (m) after Turnbull 1881	Other details
Entrance passage	5.2	1.3–1.6	1.1–1.5	1.4–1.6	Outer 2.15 m of passage is 1.3 m wide; rest of passage is 1.6 m wide
North 'guard cell'	4.75	2.1	1.2–1.5	1.8	Entrance 0.85 m wide, 0.75 m deep, over sill 0.15 m high
South 'guard cell'	4.2	2.3	0.9–1.5	0.9–1.5	Partition wall 1.2 m wide
North intramural cell	7.5	2.1	1.3–1.75	1.5	Entrance 1.0 m wide, no sill; internal chambers each 3 m long with entrance gap 0.8 m wide
South-west intramural cell	10	2.3	0.9–1.2	0.9–1.2	Entrance 1.0 m wide, sill 0.3 high; internal chambers 3.5 m, 1.7 m and 2.7 m long, in order from north to south
South intramural cell passage	4.6	0.9–1.5	1.5 max	1.05 max	Entrance 1.0 m wide, with sill 0.4 m high; chamber floor 0.4 m below that of passage; for stairs see main text
chamber	2.7	1.9			

Broch enclosure (illus 5 & 8)

The broch lies within a sub-rectangular enclosure measuring 58 m north/south by 54 m, its northern side being formed by the inner fort rampart. The enclosing work is most imposing at its south-west corner, where it appears as a substantial stony bank spread to 6 m wide and standing over 1.5 m high, tapering gradually to the north and east of this point. A ditch runs outside the bank in this sector, being visible as a distinct surface depression on the west side and only as a vegetation mark on the south. Elsewhere the enclosure boundary is marked by degraded wall



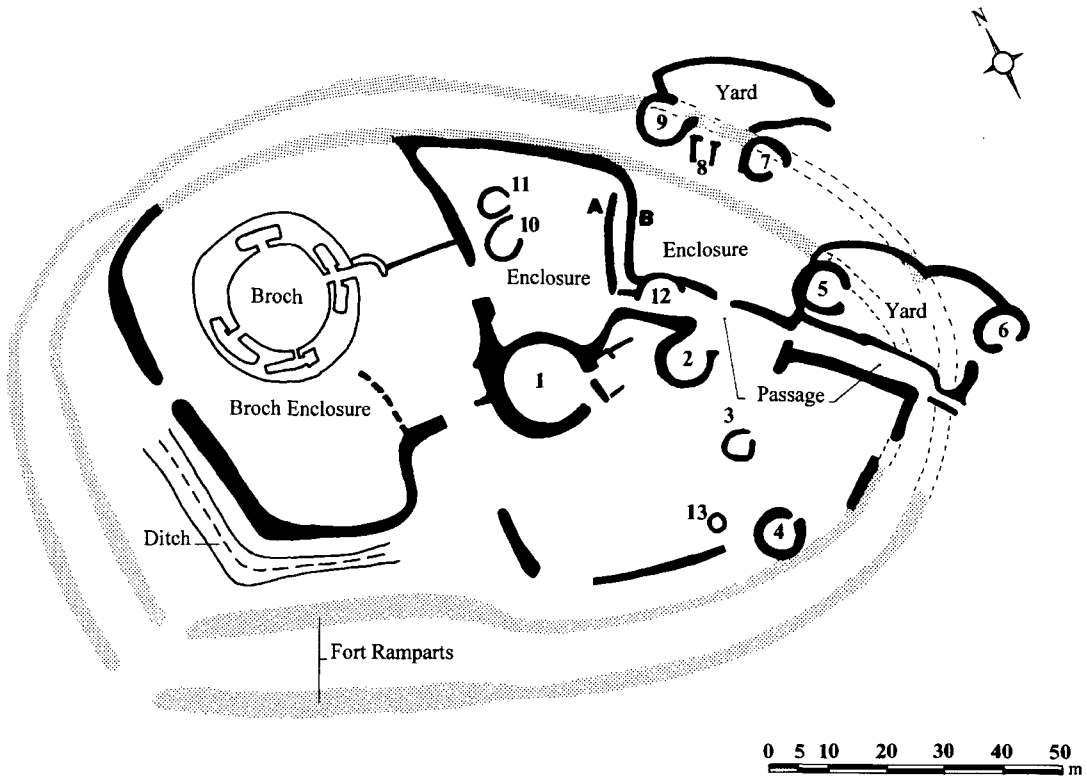
ILLUS 7 Plan of the broch (based on RCAHMS 1915 with amendments and additions)

foundations. Two opposing breaks are present towards the centre of the east and west sides, the eastern of which is probably an original feature.

The south-east sector of the enclosure wall is poorly preserved and irregular. The remains here have been interpreted in a variety of ways by previous researchers: the arrangement depicted on illus 8 coincides most closely with RCAHMS (1915, fig 58). A wall foundation running towards the south wall of the broch may mark a subdivision within the enclosure: it is more apparent from the air (illus 2) than on the ground.

Broch wall (illus 5 & 7)

The broch is a sub-circular drystone structure with an overall width of 27.5 m to 28.2 m. Its wall varies in thickness between 4.8 m and 6.4 m. The wall-faces are constructed of locally available stone, with large blocky stones pinned in place by smaller tabular material. A foundation course projects from the base of the outer face. Unconsolidated rubble forms the core between the two faces, although the visible core material is probably largely, if not entirely, the result of restoration work. Around the southern half of the structure a scarp has been cut into the shallow slope of the



ILLUS 8 Schematic plan of the broch, broch enclosure and settlement

hill, and runs outside the wall at a distance of between 2 m and 4 m from it (illus 2 & 5). This feature may have been enhanced or even created by the clearance of rubble formerly banked up against the broch wall; a terrace may originally have been cut to create a platform or level foundation for the broch.

The broch wall currently stands to between 1.0 m and 1.8 m externally and 1.0 m and 1.4 m internally, but this is partly a result of restoration work (Table 1). At the end of the 18th century, before the documented stone robbing occurred, the wall is recorded as standing 2.0–2.5 m high (G Turnbull 1857, 9, citing Blackadder). A visitor to the site in 1811 had claimed that the walls stood up to 3.05 m high (cited in HBNC 1863, 248; Stuart 1871, 42), but this evidence is anecdotal and therefore unreliable.

Central court (illus 7)

The central court of the structure is sub-circular and measures 17.2–18.3 m across. Its surface is now grassed and featureless apart from a depression running immediately within the wall, which reflects trenching by John Turnbull to expose the wall base. George Turnbull (1857, 9; pl 1) recorded that, prior to excavation, most of the central court was free of debris, with a band of rubble 2.5 m wide around its periphery and banked against the inner face of the broch wall, representing the detritus of stone robbing. John Turnbull (1881, 89, 91) identified a paved floor in the north-east quadrant of the court. The paving stones generally were 0.3–0.6 m across, but

with some up to 1.5 m. Remains of fires, but without any evidence of built hearths, were recorded at three points around the periphery of the court (illus 7). Turnbull (*ibid*) specified neither the nature and depth of material removed from the central court, nor what defined the basal level exposed in those parts of the court where paving was not present. However, if the 19th-century sketch (illus 3) does record the condition of the broch prior to its clearance, no great depth of internal deposit appears to have been present.

Entrance passage and 'guard cells' (illus 7)

The central court is reached from the east by an entrance passage. The outer part of the passage is 1.3 m wide; rebates in the side walls, marking the position of a door or gate, increase the remaining passage width to 1.6 m. The outer part of the passage was still capped by substantial lintels in 1793 (G Turnbull 1857, 12, citing Blackadder). One of these lintels is now propped on its edge immediately outside the broch entrance. Excavation (J Turnbull 1881, 89) revealed a paved floor within the passage, which can still be discerned beneath the turf cover.

Intramural cells, of a type conventionally referred to as 'guard cells', extend both south and north from the entrance passage. The northern cell is elongate with a rounded inner end, where the battering of the walls indicates the former presence of a corbelled roof (comparable to the better-preserved example at the Tappoch, Torwood; RCAHMS 1963, 85–7, no 100). The cell originally had been open to the entrance passage across its full width, but was narrowed by the secondary insertion of an unbonded column of stonework. A paved floor was revealed by excavation (Turnbull 1881, 90).

The southern cell also has a rounded inner end. A partition wall, not bonded to the side walls and thus secondary, blocks off the innermost 1.5 m of the cell. The entrance to the cell has been walled off and obscured, possibly during restoration works, but was previously recorded as 0.75 m wide and containing two superimposed sill stones, together 0.75 m high, the upper slightly recessed relative to the lower (J Turnbull 1881, 90; RCAHMS 1915, 62). Inside the sill, three steps led down to the floor of the cell. No mention was made by Turnbull of a paved floor being present within the cell, although traces of a fire were revealed on the inner side of the partition wall.

Intramural cells (illus 7)

Three intramural cells are entered from the central court, on the north, south-west and south sides. Blackadder noted around 1793 that these cells were quite distinct and appeared once to have been corbelled (cited by G Turnbull 1857, 13), although it is clear from his turn of phrase that the roofing did not survive at this time. Murray's original account of the structure in 1764 refers to the cells as 'square holes' with vertical edges in the heart of the wall, reinforcing the impression that they were open prior to the 19th century. As if to warn against placing too much reliance upon early sources, Stuart (1871, 42) records the recollection of a visitor to the site in 1811 (also cited *supra*) that two of the cells had intact corbelling.

The northern cell is elongate with rounded ends, and is entered at its centre. The walling at each end oversails with height, suggesting the former presence of corbelled roofing. Directly opposite the entrance secondary walling projects from the rear wall for 1.5 m, and divides the cell into two chambers. John Turnbull stated that there was no paving within this cell, but did not say what defined the floor level exposed by his excavations (at the same level as that of the central court).

The south-west cell is also elongate with rounded ends, and entered towards its centre. The cell has been divided into three interconnecting chambers by the addition of secondary blocking walls to either side of the entrance passage. Turnbull's excavations (1881, 91) identified a paved floor within the central chamber and the near side of the southern chamber, as well as a hearth in the centre of the southern chamber.

The southern cell is the most complex. An entrance running obliquely through the broch wall opens into a passage. At the west end of the passage rises a flight of eight stairs, narrowing from 0.9 m wide at the base to 0.65 m at the top. Whether this stair led to the wall-head, or to an upper storey or gallery, is a matter of conjecture, particularly as no evidence for a scarcement survives within the central court. The steps have angular edges within little sign of wear, which does not suggest regular or prolonged use. At the opposite end of the passage is a small chamber. Turnbull's excavations detected no paving within this intramural feature.

External structures (illus 5 & 7)

Immediately outside the broch entrance lies a series of secondary features. The earliest, on stratigraphic grounds, and not previously recognized, comprises a curving length of drystone wall abutting the broch wall, which served to prevent a direct line of approach to the entrance passage. The western part of this feature is still upstanding, but is largely obscured by a displaced lintel; the eastern part is visible only as a grassed foundation. A low linear bank, possibly degraded wall foundations, runs between the end of this 'porch' and the eastern boundary of the broch enclosure.

A small rectilinear structure, with internal measurements of 2.2 m by 1.5 m, incorporates the 'porch' as its southern wall (possibly explaining its better preservation here). This structure was excavated by Turnbull (1881, 92–3): no internal features were recorded, although several artefacts were retrieved. A wall foundation, visible as a low stony, north-facing terrace, runs east from the north-east corner of the structure, and may represent one of the foundations noted in this area by Turnbull as untraceable (1881, 93).

SETTLEMENT (ILLUS 5 & 8)

To the east of the broch enclosure lies a series of stone-walled structures with associated yards and enclosures. At least 12 structures, and probably 13, are identifiable, of which nine (nos 1–9, illus 8) were examined by John Turnbull (1881). Prior to their excavation George Turnbull (1857, 13–14) recorded the structures appearing as turf-covered mounds with their larger stones projecting. The internal widths of these structures vary from as little as 3 m to over 14 m, although the majority fall between 5 m and 7.5 m (Table 2). All but one (Structure 8) are sub-circular in form, with entrances facing between north-east and south-east. Several of these structures were revetted into the hillside. The structural characteristics of those excavated are relatively homogeneous, with nothing to suggest substantially different dates of construction.

In spatial terms the settlement can be subdivided into three groups, as described below.

Group 1

Several structures stand within the ramparts of the fort; these are associated with two rectilinear enclosures to the north, and possibly the remnants of a third to the south. The northern enclosures measure approximately 30 m by 30 m and 30 m by 13 m, and are bounded by degraded stone

TABLE 2
Summary descriptions of the stone-walled structures of the settlement

Structure	Internal dimensions (m)	Entrance orientation	Details	Excavated data; after Turnbull 1881
1	14.6 by 14.3	ESE (modified)	South wall revetted into hillslope, others freestanding; north wall apparently abutted by broch enclosure; secondary wall foundations outside entrance	Paving inside structure and outside entrance. See Trench 8, <i>infra</i> .
2	7.5 by 7.0	ENE (modified)	South wall revetted, others freestanding; entrance opens onto walled passage	Paving in north half of interior
3	4.6 by 4.5	ENE	South wall revetted; north wall damaged by vehicles	Paving in east half of interior
4	5.8 by 5.8	ENE	North wall freestanding; others revetted	Paving in entrance and adjacent quadrant of interior. See Trench 4, <i>infra</i> .
5	6.3 by 6.0	South-east	South wall revetted; others freestanding; entrance opens into yard	Paving in entrance and adjacent quadrant of interior
6	5.8 by 5.0	South	Wall defined by bank	No stone walling found
7	5.5 by 5.3	SSE	North wall re-uses fort outer rampart; others freestanding and overlying infilled fort inner ditch.	Paving in entrance and adjacent quadrant of interior. See Trench 6b, <i>infra</i> .
8	3.2 by 3.0	North	Sub-rectangular foundation lacking south wall; approach passage cut through fort outer rampart	No details; claims of a second rectilinear next to this can be dismissed
9	7.0 by 6.0	East	North wall re-uses fort outer rampart, others are freestanding and overlying fort inner ditch; approach passage cut through fort outer rampart from yard below	Entrance and half of interior paved
10	5.5 by 5.0	ENE	Wall defined by penannular arc of stones	Not excavated
11	4.5 by 4.5	ESE	Wall defined by penannular arc of stones	Not excavated
12	8 diameter	?	Arc of wall incorporated in walled passage	Excavated, but not recognized
13	5 external	?	Sub-circular boulder scatter; possible structure	Not excavated

walls, in part reusing the northern inner rampart of the fort. This spread of remains is both accessed from, and bisected by, a walled passage leading from the eastern edge of the fort to the broch enclosure. The passage varies in width from 2 m to 6 m, and at one point (east of Structure 2; illus 8) narrows, possibly reflecting the former presence of a barrier. The character of the walling varies along its length, and demonstrates that the passage is a composite feature.

This settlement area shows evidence of stratification. While the detectable evidence is insufficient to allow its sequence to be fully understood, it suggests that the evolution of the settlement was more complex than realized previously. Structure 1 is abutted by the walls of the broch enclosure and other enclosures, which thus appear to be secondary to it. Secondary wall

foundations are also apparent immediately outside Structure 1, the entrance of which had been widened, possibly suggesting a period of secondary, non-domestic use. Combined with its central location within the fort, there is thus good reason to regard Structure 1 as one of the primary features of the settlement. The entrance to Structure 2 is also significantly wider than would be expected for a domestic structure of this type. Furthermore, the passage through the settlement appears to truncate Structure 12, with its surviving walling incorporated within the passage walls. This indicates that at least part of the passage did not form part of the original design of the settlement. Nearby a degraded stone wall appears to have been replaced by a secondary alignment (A & B, illus 8).

Group 2

Structures 5 and 6 stand at opposing sides of a rectilinear yard measuring 30 m by 13 m. This was entered from the east, independently of the walled passage. The creation of this yard required the levelling of a sector of the fort earthworks. The effort involved in its construction suggests that the ground enclosed within the fort was already fully occupied, and thus that this element of the settlement represents an expansion.

Group 3

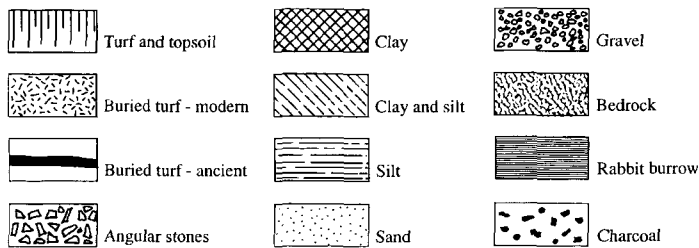
Structures 7 and 9 were built into the outer northern fort rampart and across the infilled inner fort ditch. A small rectilinear chamber, Structure 8, stands between them. Structures 8 and 9 are entered via a yard (25 m by 10 m) set downslope from them, whereas Structure 7 is entered independently of the yard, from the east. Again, the peripheral position of these structures may reflect an expansion of the settlement.

EXCAVATION RESULTS

FORT RAMPARTS

Trench 3 (illus 5 & 10)

Trench 3 (23 m by 1.5 m) was opened across the enclosing works of the fort on its southern side. At this point the earthworks are at their most impressive, with the crest of the outer rampart standing some 4.2 m above the current ground surface in the base of the inner ditch. The outer, south-facing slopes of the ramparts here had been heavily disturbed by rabbit warrens and gorse growth, whereas the north-facing slopes were pocked by rabbit pits and scrapes. Both ramparts proved to be of dump construction, formed by material cast up from the adjacent ditches and with retaining walls set on their outer edges. Due to time constraints, neither ditch section was bottomed, and the inner rampart was only partly cross-sectioned. The evidence suggests the possibility that the inner ditch, rampart and a low counterscarp bank — (a) and (b) of the outer rampart — represent primary earthworks, with the outer ditch and rampart added later. However, more definite evidence would be required to propose that there was a significant time-interval between the cutting of the two ditches and that the outer rampart reflects two discrete events — there was, for example, no turf line present between components (b) and (c) of the outer rampart.



ILLUS 9 Key to conventions in excavation plans and sections

The inner rampart measured 8.45 m wide and up to 1.45 m high; originally it would have been somewhat higher and probably narrower. The rampart core comprised a series of compact pebbly clay and silt deposits similar in nature to the subsoils cut through by the inner ditch. A single upright stone may have derived from a facing retaining the outer edge of the rampart (illus 10, section X-Y), but lay within rabbit-disturbed material; a scatter of stones could be traced along the outer face at this level, and may relate to a continuation of this feature. A turf-line sealed beneath the rampart demonstrated that the earthwork had been constructed directly upon the pre-existing ground level, with no identifiable preparation of the ground.

The inner ditch had a surface width of 6.0 m and was excavated to a maximum depth of 1.9 m. Assuming the profile of the ditch to be a regular V-shape, a total depth in the order of 3.1 m is suggested. The lower earthen and stone fills encountered presumably related to the degradation of the adjacent ramparts. The uppermost ditch fills were of recent origin and rabbit-derived (above the solid line on illus 10, section X-Y, which represents the turf line prior to recent damage).

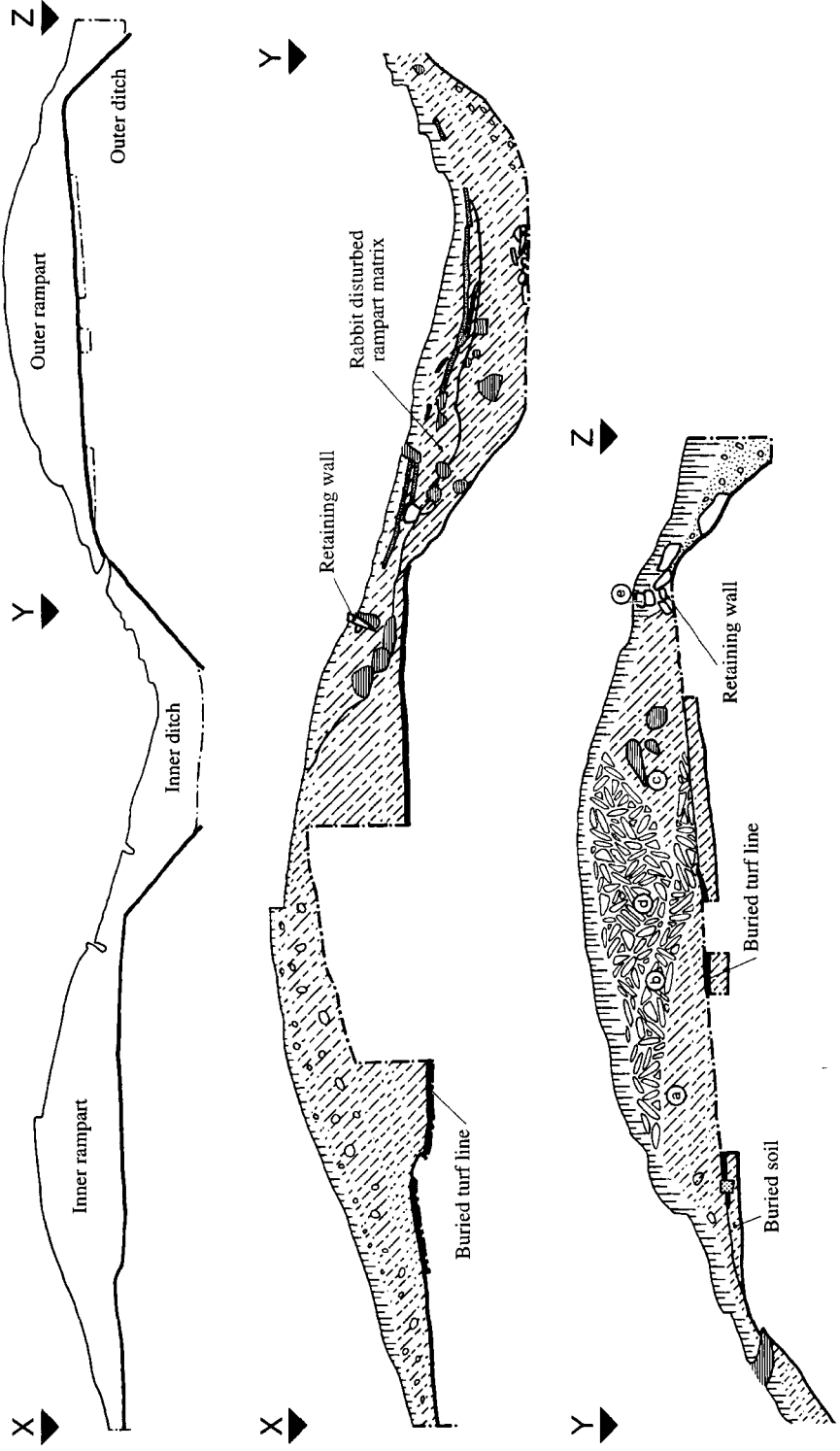
The outer rampart occupied a ledge 6.9 m wide between the two ditches, and was preserved up to 1.1 m high (illus 10, section Y-Z). A buried turf line and soil were sealed beneath the rampart, and were sampled with a view to conducting palynological analyses (Cressey, *infra*). The excavated rampart section contained a sequence of five discrete components: (a) a primary earth mound 3.75 m wide at its base and up to 0.6 m high; (b) a layer of loose, angular stones tipped over the outer slope of (a); (c) a dump of loose earth forming the outer slope of the rampart; (d) a second dump of loose, angular stones infilling the cavity between (b) and (c); (e) the foundations of a single-skin stone retaining wall, much disturbed by rabbits and gorse roots. The matrix of (a) was observed to be very similar to the subsoil cut through by the inner ditch, whereas that of (c) and (d) strongly resembled the subsoil and fractured bedrock deposits originally excavated from the outer ditch. The implication is that (a) derived from the inner ditch, and (c) and (d) from the outer ditch. Component (b) is likely to represent bedrock removed during the cutting of the inner ditch, from a level which was not exposed by excavation. At this point, therefore, as (a) lies stratigraphically beneath (c) and (d), the inner ditch was cut before the outer ditch.

The outer ditch had been cut through a silt and clay subsoil overlying heavily weathered bedrock. The earth and stone fills encountered probably derived from the adjacent rampart and its retaining wall, although some of the boulders may represent material cleared from the adjacent field (a band of this material is visible on illus 2).

Finds No artefacts were recovered from the trench.

Trench 7 (illus 5 & 11)

This trench (7.5 m by 1.5 m) was excavated across a damaged section of the inner rampart and part of the inner ditch of the fort, towards its south-east corner. Here the enclosing works are less



ILLUS 10 Trench 3: west-facing section

substantial, measuring 1.5 m in total relief, and of different character to those investigated in Trench 3. Both ramparts appear as low stony banks, the outer showing lengths of an external facing. The inner ditch intermittently showed indications of irregular rock-cut edges. There seems little doubt that material was quarried from the ditch to create the earthwork, probably a wall with an earth and rubble core. The wall-faces had been largely robbed; this could have occurred in antiquity, even during the occupation of the site, when stone would have been required for constructing the roundhouse wall foundations.

The inner rampart in Trench 7 had a basal width of 4.8 m, and was preserved to no more than 0.55 m in height. Its southern edge lay immediately beside the inner ditch, and its northern edge was defined by the partial remains of a face of upright stones. The matrix of the rampart had two discrete components, a core of unconsolidated small angular stones, overlain by a fine, sandy soil containing small angular stones. The stones of the inner kerb/face stood 0.4 m high, and proud of the rampart matrix, suggesting that significant degradation of the latter had occurred. The rampart lay directly upon subsoil, with no evidence of a buried turf sealed between the two.

The inner ditch was rock-cut with an irregular, craggy edge. Within the partial ditch section exposed an upper fill of brown silty soil containing small, angular stones overlain a deposit of loose angular stones. A thin layer of silt lined the ditch edge.

Finds Again, no artefacts were recovered from the trench.

Trench 6a (illus 5)

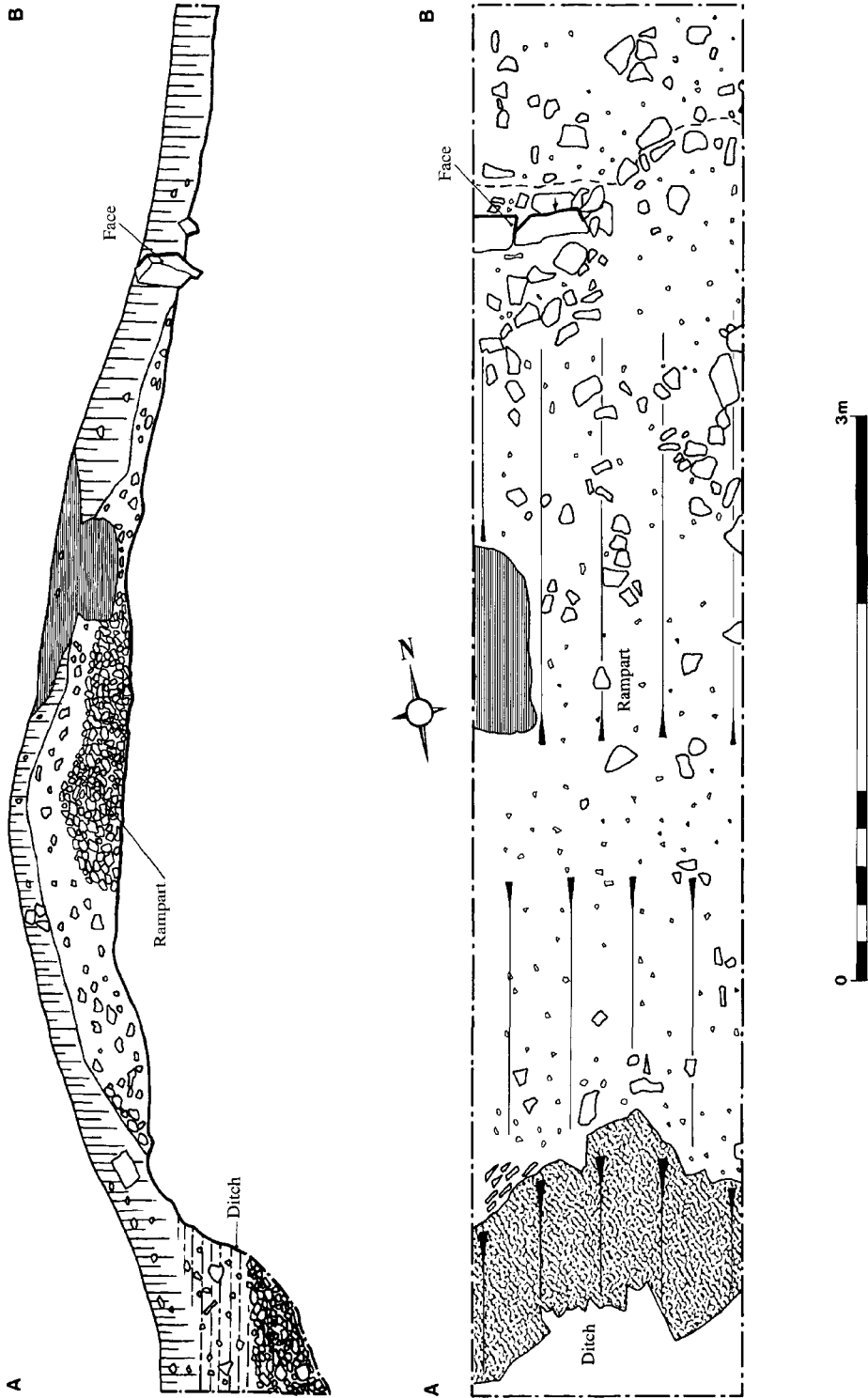
Trench 6a (9 m by 1 m) was opened to investigate the damage caused by an area of intense rabbit burrowing on the presumed alignment of the northern inner fort ditch. Excavation confirmed the ditch alignment, although time constraints and the complexity of deposits identified did not permit the investigation of a complete section through it.

The alignments of the enclosing works had made good use of the natural topography: the rampart lay on the summit of a north-facing slope 1.5 m high, at the base of which the ditch had been cut. The ditch was rock-cut, with a surface width of 4.3 m. Its inner edge was near-vertical whereas the outer descended at a much more gentle gradient. The lower exposed ditch fills included a deposit of silt and charcoal and, towards the centre of the ditch, a cluster of flat slabs with the appearance of rough paving: these were left *in situ*. They are best interpreted as associated with the occupation of the adjacent stone building remnants (Structure 7). The uppermost deposits in the ditch comprised a rubble deposit and a series of rabbit-derived deposits of recent origin.

Again, no artefacts were recovered during the excavation of this trench.

THE BROCH AND ITS ENCLOSURE

Trenches 1 and 2 were opened across the southern side of the broch enclosure, at a point where intensive burrowing was evident along on the outer, south-facing slope (see illus 4). Only Trench 1 was examined in detail. Trench 5 was opened within the broch itself.



ILLUS 11 Trench 7: plan and east-facing section

Trench 5 (illus 5 & 12)

A small trench (4.5 m by 1 m) was excavated in the north-eastern quadrant of the central court of the broch, where paving had been identified by Turnbull's (1881) excavations (see illus 7). The trench was opened to assess the depth and character of archaeological deposits surviving within the broch, and to examine the effects of rabbit activity upon this resource.

Paving Deposits up to 0.3 m deep were revealed above the compact clay subsoil. The paving recorded by Turnbull was revealed immediately beneath the turf, and comprised a compact layer of flat, angular stones. It was not present within 2 m of the broch wall, where the current ground surface dips appreciably towards the perimeter, and was probably removed by Turnbull to expose the base of the broch wall. A large fractured slab overlay the paved layer, and may have been displaced by Turnbull.

Cobbles The paving was partly removed, revealing beneath it a layer of cobbles overlain by a fine soil matrix containing powdered charcoal. It was not determined whether the cobble layer represented a laid surface or a levelling deposit for the paving. The cobbles lay directly upon the subsoil surface. The charcoal-rich deposit was sampled with a view to obtaining a radiocarbon date (see Cressey, below).

Foundation slot A narrow slot, 0.3 m wide and 0.2 m deep had been cut through the subsoil immediately inside the broch wall, and is best interpreted as a foundation trench for the insertion of the wall. This feature had not been recognized by Turnbull, and was only defined with any clarity in section during the current excavations.

Finds from this trench were restricted to modern items including a sherd of glass, found within loose earth overlying the paving.

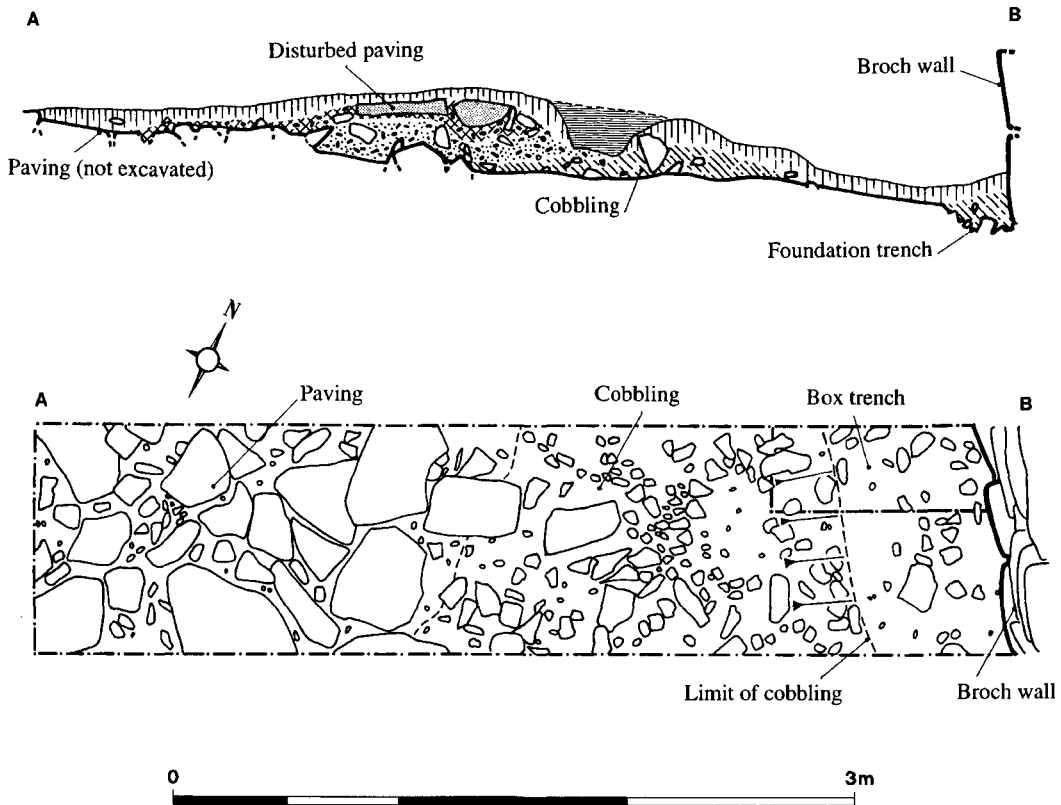
Trench 1 (illus 5, 13–15)

This trench (12 m by 1.5 m) was cut through the bank 10 m east of the south-west corner of the enclosure. The bank at this point stood to 1.5 m high and was spread to 5.5 m wide, with traces of an outer wall face present. Excavation proved the bank to be the degraded remains of a massive wall 3.7 m wide and preserved up to 1.25 m high. A post-hole lay immediately inside the wall, and a buried ground surface was sealed beneath it. A ditch was identified 1.7 m south of the wall.

The wall was composed of an earthen core retained on either side by a stone face. Where examined the core material comprised a sequence of four compact brown and grey sandy clay deposits containing occasional cut turves. This stratification may indicate that the core was raised in a series of tamped down layers, although post-depositional chemical factors may explain the observed banding.

The outer wall face was reasonably well built, with up to four courses surviving. To the left, as visible on illus 14, the face was composed of well-fitted, tabular stones, with smaller material packing the interstices; its character was similar to the broch wall. To the right the facing stones were more rounded, less well fitted and less regularly coursed above the basal course. The variable quality of the masonry might indicate that the latter material represents a rebuild or patching undertaken in antiquity. The wall face was not removed in the interests of the conservation of the monument.

A dense layer of stones and earth (partly excavated in illus 14) extended southwards from the wall face for 2.5 m, and partly sealed the infilled ditch. These deposits presumably represent material collapsed or eroded from the upper part of the wall face and core. A sheep burial had been inserted through this material, adjacent to the outer wall face.



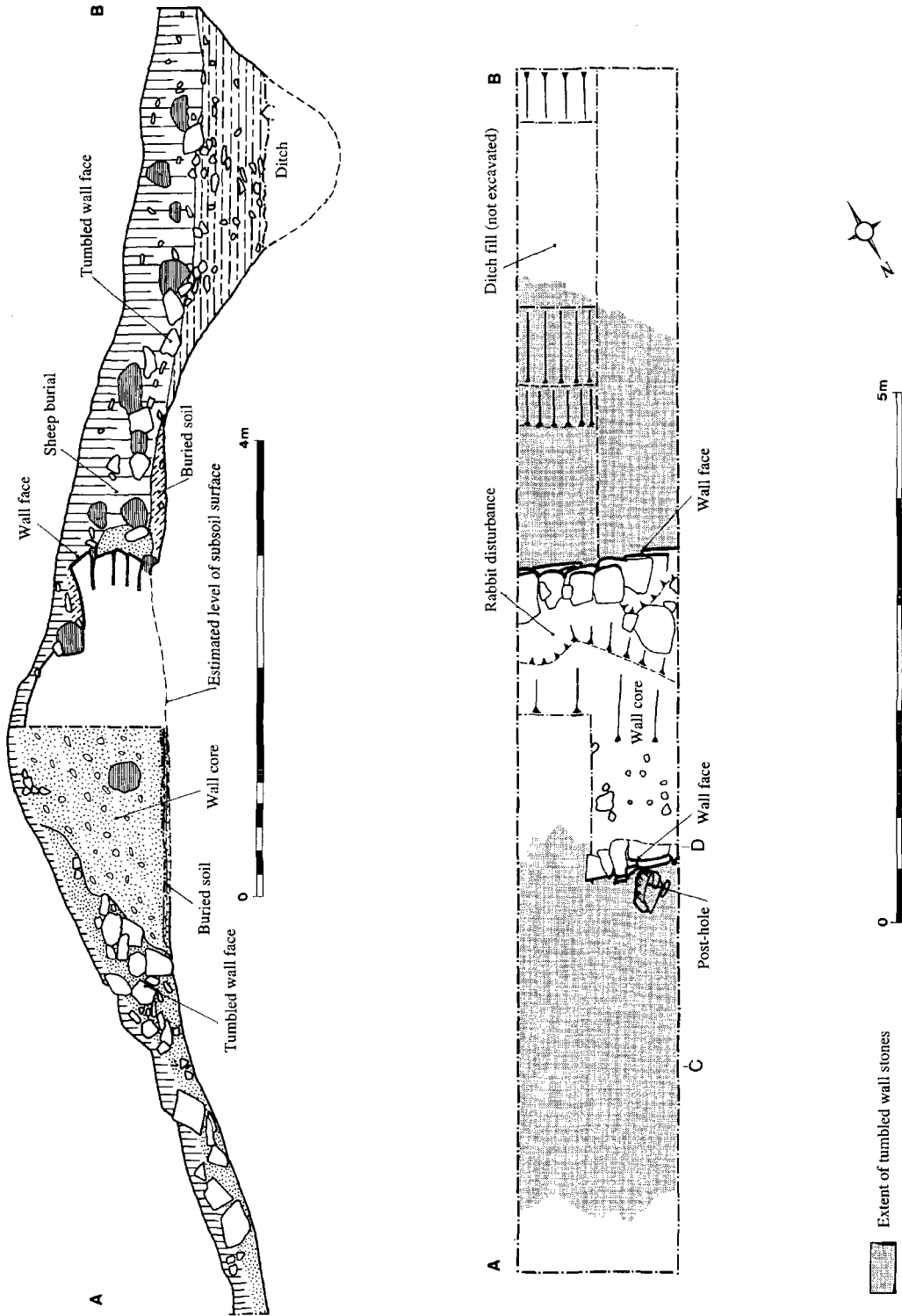
ILLUS 12 Trench 5: plan and south-east facing section

The internal wall face was present only in the western half of the trench, where it stood to no more than 0.5 m. No attempt had been made at coursing, and in elevation the stones formed an irregular and uneven patchwork. The stones had been keyed into the core material to hold them in place. The absence of any *in situ* remains of the wall face in the eastern part of the trench indicates deliberate dismantling rather than gradual decay; it seems implausible that the basal course of the wall could have tumbled out of position. It was only where this wall face did not survive that the core material was examined.

Sandy layers were banked against the inner wall face. The lowest of these contained stones and a spread of stones lay on the surface of the uppermost layer. There are two equally satisfactory explanations for these observations: firstly, that all the deposits relate to a progressive collapse and decay of the original wall; secondly, that wall may have been banked up following an initial collapse, which then degraded for a second time. Further excavation would be required for a fuller understanding.

A post-hole was recorded immediately beside the northern wall-face. This was 0.28 m by 0.24 m across, 0.35 m deep, and lined with packing stones. The post-hole was cut through an orange sandy silt layer, probably a buried soil, which ran beneath the wall, extending southwards as far as the lip of the ditch and northwards for 1 m, beneath the possible secondary banking.

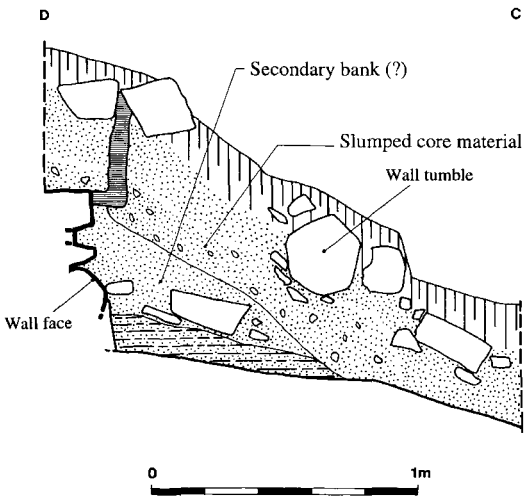
The external ditch was 3.5 m wide. A section was excavated to a depth of 0.7 m below its surface, revealing steep sides and a single orange-brown clay silt fill containing many small angular stones. The angle of



ILLUS 13 Trench 1: plan and west-facing section through broch enclosure wall



ILLUS 14 Broch enclosure wall in Trench 1, from south



ILLUS 15 Trench 1: east-facing section

convergence of its sides suggests that the ditch has an overall depth of 1.3 m at this point. Given that this length of ditch is now completely infilled, whereas the same feature on the western side of the broch enclosure remains as a distinct hollow, it is possible that its southern part had been filled deliberately.

Finds No artefacts were recovered in Trench 1.

Trench 2 (illus 5)

Another trench (11.5 m by 2 m) was opened 5 m west of Trench 1, adjacent to the south-west corner of the broch enclosure, where the wall is at its highest. The original reason for opening two closely spaced trenches across the same earthwork had been that different material had been cast from rabbit burrows in these two areas, suggesting that different forms of construction may have been present. Upon the removal of topsoil, it became evident that many of the same features had been exposed as were present in Trench 1, and no further excavation was undertaken.

Again, no artefacts were recovered from Trench 2.

THE SETTLEMENT

Exploratory excavations were carried out on three structures previously examined by Turnbull (1881). This work was conducted in order to indicate the nature of any deposits which had survived these previous investigations, and to consider the effects of rabbit burrowing and gorse growth upon that resource.

Structure 4: Trench 4 (illus 5, 8, 16–18)

This structure lies in the south-east corner of the fort, and is revetted almost entirely into a natural ridge along which the inner fort rampart runs. The internal wall face currently appears as a boulder foundation, largely displaced on the south side, defining an internal area with a diameter of 5.8 m. Turnbull (1881, 94) mentions only that paving was present in the entranceway and a quadrant of the interior area adjacent to this. There is nothing to suggest that the walls of Structure 4 had ever been more substantial. Trench 4 (11 m by 1.5 m) was opened across the centre of the structure, and encompassed a gorse bush and rabbit burrow, both of which appeared to be damaging the walls.

The walls of this structure were found to be of more complex construction than had been indicated by surface traces. Four elements were identified, three of which were arranged concentrically. A boulder face retained the rear of the area which was scooped into the hillside to provide a level stance. Outside this, a second alignment of smaller boulders ran along the crest of the scoop, set back from the inner face by up to 0.8 m. Immediately behind the outer boulder face ran a slot, up to 0.8 m wide by 0.4 m deep. This feature is perhaps best interpreted as a construction trench for a timber feature. The slot was sealed by a layer of angular stones which filled the space between the boulder faces. These various features could relate either to elements of a complex wall or, more likely, a sequence of wall alignments (discussed further below).

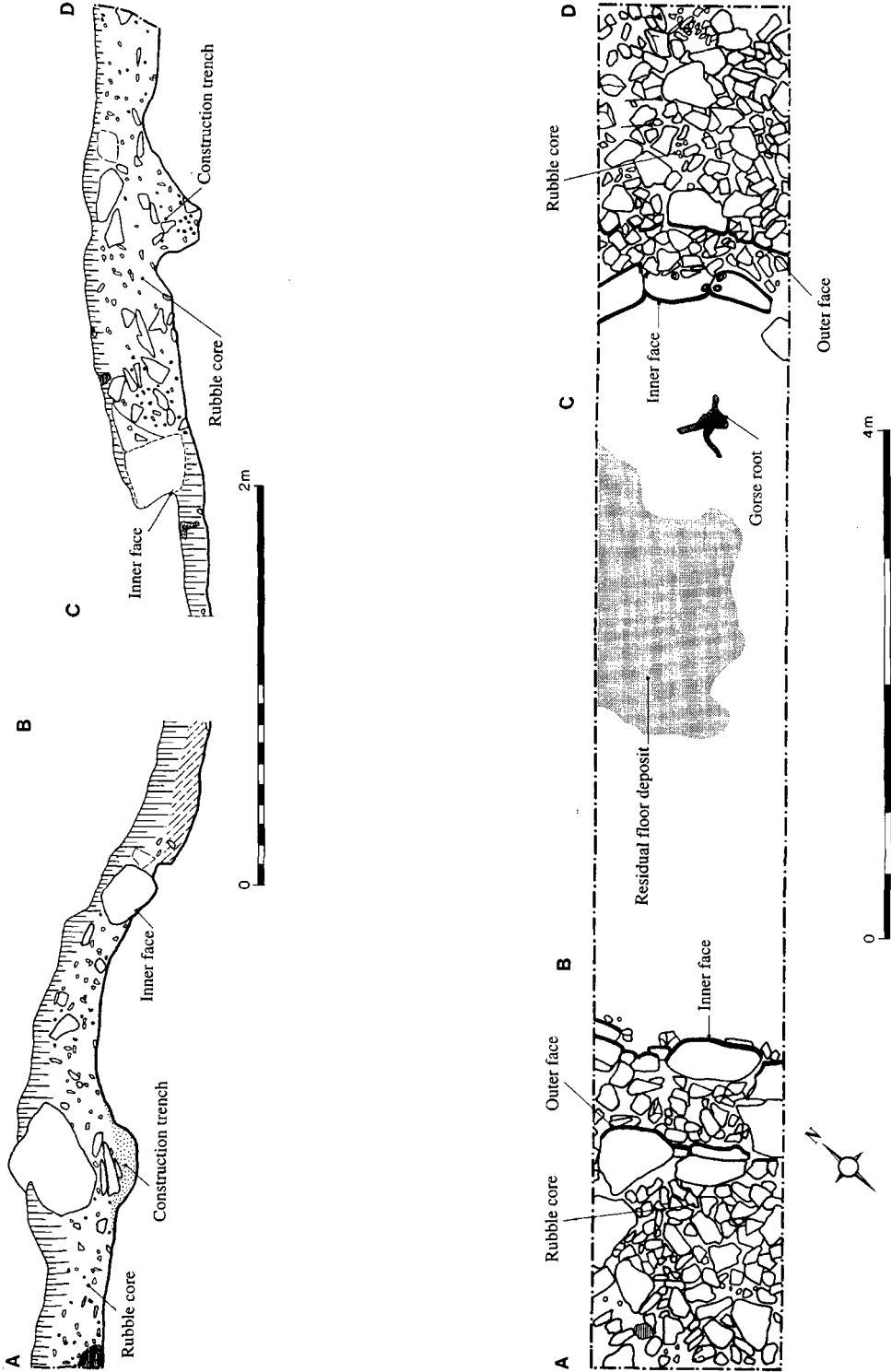
The interior yielded very little surviving material. A thin layer of root-penetrated soil (0.05 m deep) was identified between the topsoil and the bedrock surface exposed by the initial quarrying of the scoop. In the centre of the structure this soil had a humic, organic nature, and contained powdered charcoal, suggesting that it represented residual occupation material. There was no trace of the paving identified by Turnbull (1881).



ILLUS 16 Structure 4 prior to excavation, from east



ILLUS 17 Western wall of Structure 4; both faces are visible



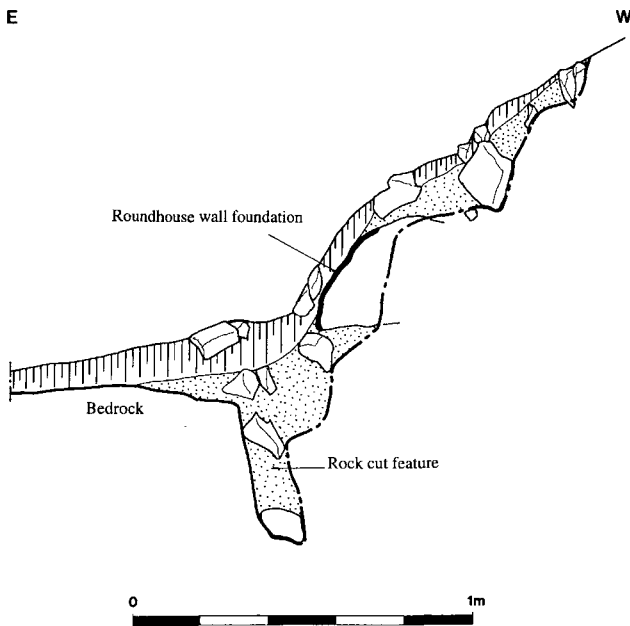
ILLUS 18 Trench 4: plan and south-facing sections

Finds included two coarse pottery sherds, as well as other fragments of fired clay, which were recovered from the rubble core of the east wall. A broken hammerstone and a broken stone rubber were found in the fill of the eastern construction trench. Much of the surviving deposit from the internal area was bulk sampled to enable sieving for artefacts; the results of this exercise were entirely negative.

Structure 1: Trench 8 (illus 5 & 19)

A small trench (6 m by 1 m) was opened within the largest of the structures.

The wall was freestanding at this point. The inner face was exposed in order to assess its character, but the wall was not dismantled. It comprised a core of rounded and angular medium sized stones retained by a rough inner face of boulders. Sealed beneath the wall foundation was a rock-cut trench filled with earth and rubble, which was only partly exposed. Its steep-sided inner edge lay 0.2 m within the wall, and was at least 0.4 m deep. It may either have formed part of Structure 1 or an earlier, unrelated feature.



ILLUS 19 Trench 8: north-facing section

The interior contained no features or deposits preserved on the floor of the structure. Bedrock was encountered immediately beneath the topsoil and turf, which was only 0.1 m deep. The paving recorded by Turnbull (1881, 94) was not identified, although surface indications suggest its presence elsewhere within the structure.

Finds No artefacts were recovered from this trench.

Structure 7: Trench 6b (illus 5)

Trench 6b (5 m by 1m) was opened across the eastern wall of Structure 7, immediately south of its entrance (and at a point where the structure did not overlie the infilled fort inner ditch). Time constraints allowed only cursory examination.

The wall of the structure proved to be 2.0 m wide, preserved up to 0.6 m high, and composed of a core of earth, pebbles and small cobbles retained by rough faces of small boulders. Immediately outside the wall lay a 2.5 m wide and 0.25 m deep spread of angular and sub-rounded stones. Bedrock lay directly beneath turf and topsoil within the interior of the structure.

Finds No artefacts were recovered during the investigation of this structure.

Test-pit: Trench 9 (illus 5)

A test trench measuring 2 m by 2 m was excavated within the open area south-east of Structure 1. Here, no structures could be traced from surface evidence, but a concentration of rabbit pits was present. No archaeological deposits or features were noted within this trench. The topsoil directly overlay subsoil and bedrock. A broken stone roughout for a bead or pendant was recovered from the topsoil.

ARTEFACTS

Fraser Hunter

with contributions by A Dunwell, K Eremin, S Miller & J Moran

This report on the artefacts from Edin's Hall encompasses both finds from the recent excavations and from 19th-century work (Turnbull 1881). Geological identifications (based on macroscopic inspection of the specimens) are by Suzanne Miller of the Geology & Zoology Department of the National Museums of Scotland (NMS), and analysis of the stud and brooch (by non-destructive X-ray fluorescence) is by Katherine Eremin of the Museum's Analytical Research Section. The medieval ring brooch (no 6) was described by Jackie Moran and the 'lost' finds by Andrew Dunwell.

In the catalogue which follows, the excavation find number or museum catalogue number is given after information on the context of recovery. Abbreviations are as follows: L = length; W = width; H = height; D = diameter; measurements are given to the nearest 0.5 mm.

CATALOGUE

Ornaments (illus 20 & 21)

- 1 **Roughout for stone bead or pendant** 41.5 mm by 39.0 mm; H 11.0 mm. Trench 9, found in topsoil (context 901; find 8). Fine micaceous sandstone block, sub-square, with central hourglass perforation 12 mm in diameter. Faces uneven, edge irregularly faceted with abrasion scars, one corner broken off. Blank for production of a stone ring or bead, abandoned because of breakage.
- 2 **Perforated sandstone disc** Unfinished bead or pendant. D 33.0 mm; H 7.5 mm. Found in rectilinear structure outside broch (GA 114; Turnbull 1881, 96, no 2; pl4). Sub-circular disc of siltstone with central hourglass perforation, D 12.5 mm. The edge is faceted and bears abrasion scars, suggesting that the piece was abandoned in the process of rounding it off.

Numbers 1 and 2 illustrate the production sequence for stone rings: a blank was squared, perforated, and then abraded to shape. Such rings could have had many functions, such as beads,

pendants or hair-rings. The dimensions and shape of these examples indicate they were not intended to be either spindle whorls or finger rings.

- 3 **Cannel coal ring** External D 42.5 mm; perforation D 20.0 mm; ring W 10.5–12.0 mm; H 9.5–10.5 mm; 60% survives. Found outside broch, on south side near wall base (GA 115; Turnbull 1881, 96–7, no 3; pl 4). Broken ring of sub-circular cross-section, polished to a low lustre all over. No toolmarks survive.

The dimensions and section of this object are inappropriate for a finger ring, but an ornamental role seems assured, perhaps as a hair ornament or pendant; it is slightly more polished on one side, probably from use. The slight irregularity in the perforation and the thinning of the section suggest a thong may have been attached here, although in the absence of a clear suspension groove this remains speculative and it cannot be grouped with the classic ring-pendant series (cf Childe 1941, 217). This is the end product, albeit in a different material, of the production sequence typified by objects 1 and 2.

Rings in jet-like material are common and diverse, with parallels covering the Iron Age and Early Historic periods. Examples from the pre-Roman Iron Age are from Craigmarloch, Renfrewshire (Nisbet 1996, 54), and Dunagoil, Bute (Mann 1925, pl 34). Roman Iron Age examples are from Monquhitter, Aberdeenshire (Anderson 1902, 678, fig 3), and Traprain Law, East Lothian (Curle 1915, fig 27; Curle 1920, figs 11, 22; Curle & Cree 1921, fig 20). An Early Historic example comes from Dunadd, Argyll (Craw 1930, 120, fig 3.4).

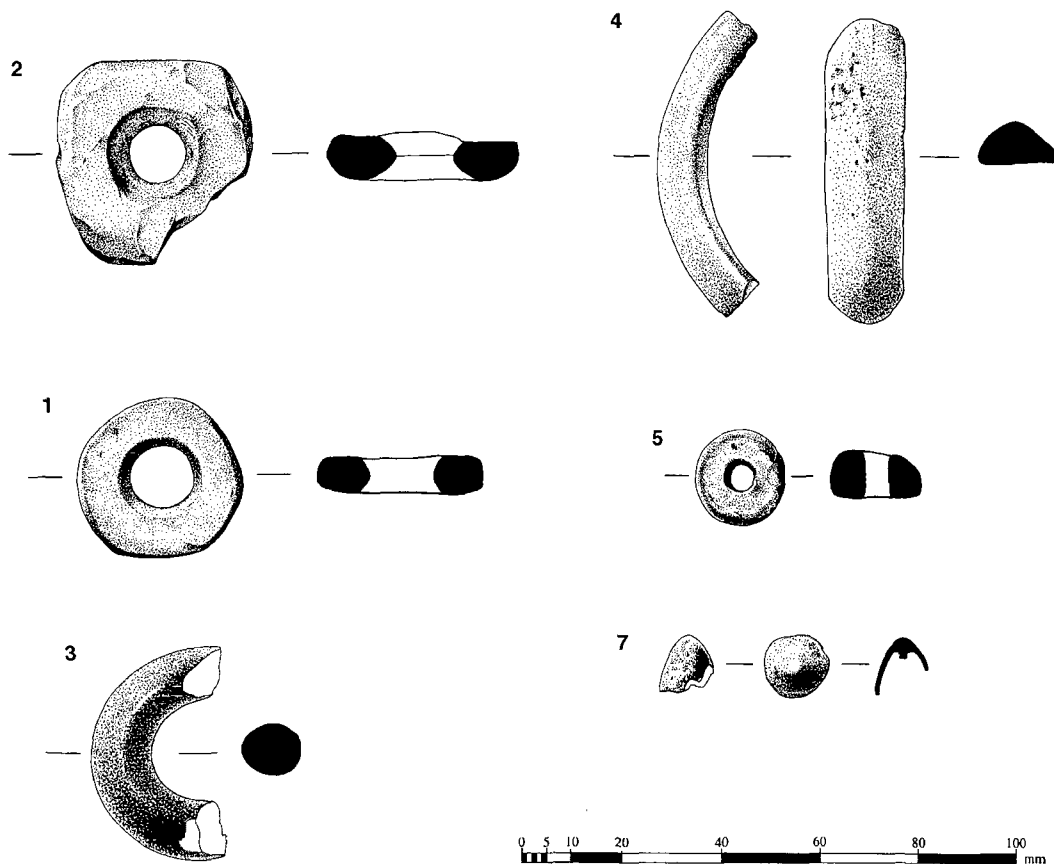
The relatively translucent nature of the ring on X-ray images implies it is highly organic, either cannel coal or lignite (for method, see Hunter *et al* 1993), while its physical appearance (notably the conchoidal fracture) supports the former identification (Davis 1993, 18). Hence it can be identified as cannel coal. This is typically found in Carboniferous Coal Measures, but can occur in seams within other Carboniferous rocks. The analysis used here cannot pin down precise sources, and there has been insufficient fieldwork to identify local outcrops, but Carboniferous sedimentary rocks (although not Coal Measures) are present in the area (Greig 1971, fig 13). Hence, a relatively local source is possible, but cannot be proved.

- 4 **Glass armlet fragment** L 60.5 mm; W 8.0–9.0 mm; H 16.0 mm; internal D 65 mm; 28% survives. No findspot stated (GA 116; Turnbull 1881, 97, no 8; pl 4). Opaque white glass armlet fragment of type 3A (Kilbride-Jones 1938, 377–81), sub-triangular in section. Some staining affects the outer surface.

Type 3A is the commonest variety of glass bangle (Kilbride-Jones 1938, 377). With more work on northern English examples, it is now clear that the distribution is more widespread than previously realized, with such bangles common throughout northern England and southern Scotland (Stevenson 1976, fig 2; Price 1988, 349). They date to the late first or second century AD (Price 1988, 349–51). The limited analyses carried out to date suggests they were made from remelted Roman glass (Henderson 1992).

- 5 **Amber bead** D 19.0 mm; H 10.5 mm. Found outside broch, on south side near wall base (GA 117; Turnbull 1881, 97, no 4; pl 4). Annular amber bead, tapering in cross-section, with flat edge and faces, slightly rounded off. Central cylindrical perforation 5.5 mm in diameter. Worn facets on one face and the edge, where the bead is thinnest, probably derive from a thong attached here for use as a pendant.

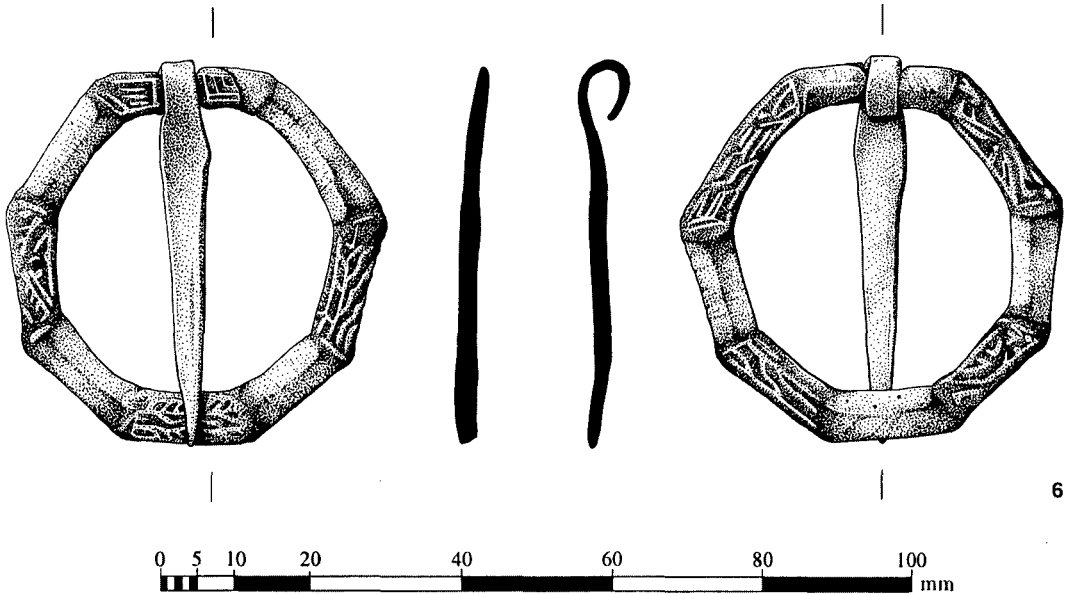
This bead falls into Beck & Shennan's Type 4 (1991, fig 4.1), although it is markedly more regular than many of the examples they quote. While they suggest the shape was to enable the beads to



ILLUS 20 Ornaments in stone, cannel coal, glass, amber and bronze (Cat nos 1-5, 7)

lie better in a necklace (1991, 57), the wear on this example hints that it was worn individually, as a pendant.

Discussion of amber in later Scottish prehistory is sadly lacking, and Beck & Shennan's corpus (1991, 184-91) is both incomplete and restrictive in a Scottish sense, where it makes more sense to look at the 'long' Iron Age spanning the first millennium AD rather than curtailing it to pre-Roman evidence (see Hunter 1998). This is not the place for a full survey of the Scottish evidence, but it is clear that after a floruit in Bronze Age hoards (Beck & Shennan 1991, 99-104), there is a sparsity of clearly Iron Age examples, although a number of beads from Traprain Law point to the use of amber in the Roman Iron Age if not earlier (eg Curle 1915, 179; Curle & Cree 1916, 109-10; Curle 1920, 82; Cree 1924, 254). Dating is a major problem, with most finds being old discoveries from long-lived sites such as Dun an Iardhard (Macleod 1915, 64-5) or Dowalton (Stuart 1865, 121). While some beads reached Scotland with the Romans (eg Newstead: Curle 1911, 337), there is no indication that this was the main mechanism for their appearance in native contexts. In the post-Roman period amber use is revitalized by its role as an inlay for precious metalwork (Youngs 1989, nos 44, 69-70, 90, 208), and in the Norse period it again becomes relatively widespread for beads (eg Grieg 1940, 68, 87-9, 109). However, dating individual examples is tricky, as they are rarely typologically distinctive.



ILLUS 21 Medieval ring brooch (Cat no 6)

The tapering-section type can, however, be paralleled by two other south-east Scottish examples, from Traprain Law and Long Yester, both in East Lothian. The Traprain example (which was not illustrated in the original publication) came from excavations near the quarry, from the secondary occupation deposit underlying the Cruden wall, along with material of second to fourth century AD date (Cruden 1940, 57; Close-Brooks 1983, 216). Its edge is more rounded than the Edin's Hall example. The Long Yester example was donated to the National Museum in 1881 (*PSAS* 1881, 189; NMS FN 46). It was said to come from a 'British camp', suggesting an Iron Age date, although details of the findspot are lacking. It is markedly more tapered than the Edin's Hall bead. These finds suggest that an Iron Age date is perfectly plausible for the Edin's Hall find, with the Traprain parallel supporting a date in the first four centuries AD.

6 **Medieval ring brooch** Hoop D 51.0 mm, section 7.0 mm by 2.5 mm; pin 51.0 mm L, section 7.0 mm by 1.5 mm. Alloy: leaded gunmetal (the pin has a lower lead content than the hoop). Found in cutting a trench through one of the earthen ramparts (GA 118; Turnbull 1881, 97, no 10; pl 4).

This octagonal brooch is an example of a distinctive type of Scottish brooch which dates from the 13th century onwards (Callander 1924; NMAS 1971). Each of its eight sides is flat on one face and ridged on the other. The pattern is reversed on alternate sides so that the front and the back of the brooch both exhibit four rectangular flat panels separated by ridged sections. The flat panels are decorated with foliage and strapwork, designs commonly used in the 15th and 16th centuries.

The pin is not of the usual style for this type of brooch and may well have been added later. A brooch like this would have had a pin with a collar or flange just below the loop hinge which encircles the ring. Non-destructive analysis of the brooch confirms that the metal composition of the ring and the pin are different, most significantly in the lead content, which is markedly lower in the pin than the ring. This difference may in part be due to the fact that the ring was cast while

the pin was cut from sheet metal: often when casting, lead was added to make the metal flow better.

Brooches of this type were also produced in silver, some of which have been found in hoards, for example the Langhope Hoard from Roxburghshire (Caldwell 1982, 39–40). They closely resemble the copper-alloy brooches but tend to be of better quality and finish. However, some of the copper-alloy brooches do exhibit a different method of manufacture from the silver ones. In silver brooches the rings are continuous but in some copper-alloy examples, including this one from Edin's Hall, there is a break in the ring with the ends overlapping and being kept in position by the loop of the pin.

In the collections of the National Museums of Scotland there are several brooches which resemble the one from Edin's Hall, in particular a copper-alloy brooch from Urquhart Castle, Inverness-shire (HY 14). It is similar in size and has an almost identical decoration to the Edin's Hall brooch on four of its flat panels. This brooch is probably of 15th-century origin (Samson 1982, no 82).

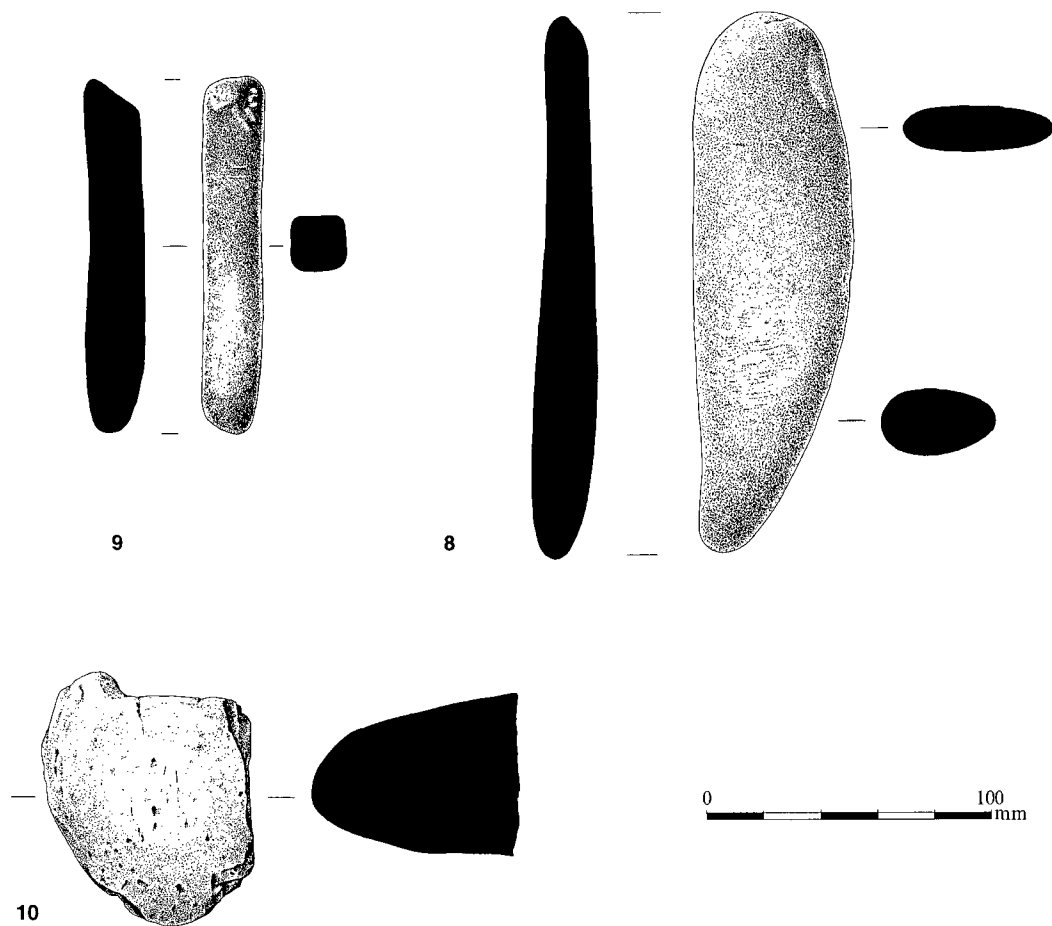
The find appears to have been recovered while excavating a section through the inner fort rampart at the north-eastern corner of the broch enclosure (illus 6, G) to facilitate removal of spoil from the site during Turnbull's excavations. The precise context of recovery of the artefact is not known; obviously, its medieval date does not sit happily with the proposed date of construction of the rampart in the first millennium BC.

- 7 **Domed bronze stud head** H 13.0 mm; D 13.0 mm. Alloy: leaded bronze. No findspot stated (GA 119; Turnbull 1881, 97, no 9; pl 4). Head of a decorative stud: hollow dome with the remains of the tang on the underside. Slightly thickened at the base. One side is broken, and corrosion obscures much of the surface.

Parallels from Hurly Hawkin, Dun Mor Vaul, Traprain Law and Castle Law (Abernethy) are discussed by Henshall (1982, 226), who suggests a date in the first century AD. This estimate may be over precise, however, as the alloy in this example would be equally consistent with a pre-Roman Iron Age date, with zinc present at trace levels only (cf Dungworth 1996, 403–4). Henshall suggests such studs were used to decorate organic materials such as wood or thick leather.

Coarse stone tools (illus 22)

- 8 **Polisher/whetstone** L 190 mm; W 58 mm; H 23 mm. Found in chamber on north side of broch doorway (GA 112; Turnbull 1881, 97, no 5). Flat siltstone pebble with a blunt point at one end which probably acted as a handle. Slight damage on one edge. Smoothing on both surfaces, concentrated on the middle, indicates use as a polisher or whetstone. A label on one side records that it was found in 1869.
- 9 **Whetstone** L 124 mm; W 22 mm; H 21 mm. Found in rectilinear chamber outside broch (GA 113; Turnbull 1881, 96, no 2). Elongated sub-cuboidal mudstone pebble. Three faces have been used for whetting knives. Use was concentrated at the angular end, with one face in particular being dished from extensive use. Some faint scratches across one face probably derive from testing a knife's sharpness.
- 10 **Broken stone rubber** 95.5 mm by 75.5 mm; H 59.5 mm. Trench 4, fill of construction trench, east wall, Structure 4 (context 418, find 4/1). Broken, irregularly round cobble of quartz porphyry. One face is



ILLUS 22 Coarse stone tools (Cat nos 8–10)

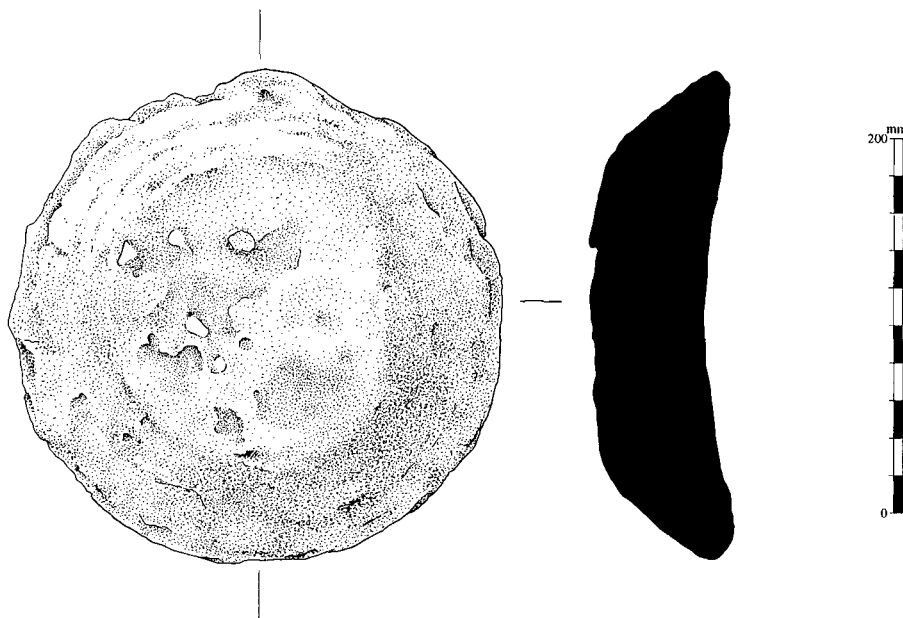
slightly smoothed and bears fine faint scratches from use as a rubber, probably with a saddle quern. The other face is smoothed and slightly dished, perhaps from use as a polisher.

- 11 **Broken hammerstone** (not illus) 108 mm by 84.5 mm; H 69 mm. Trench 4, fill of construction trench, east wall, Structure 4 (context 418, find 4/2). Broken rounded cobble of sandstone. Surviving end is damaged from use as a hammerstone. Its flattened faces may derive from use as a rubber, but the coarseness of the stone obscures any clear traces.

Such everyday stone tools are all but impossible to date with any precision, but are at home at least in an Iron Age context (cf Traprain: eg Curle & Cree 1916, 122, 133–4). The stone would all have been available locally (S Miller, pers comm).

Ceramics (not illus)

- 12 **Two sherds of coarse pottery** (1) Wall sherd, 85.0 mm by 77.5 mm; T 14.0 mm. Reduced brown fabric. Fine grit temper (1–2 mm) with some larger grits protruding through the surface. External surface



ILLUS 23 Copper ingot (Cat no 14)

wiped smooth before firing. (2) Wall sherd 56.5 mm by 36.0 mm; T 15.5 mm. Reduced brown fabric. Grit-tempered, with some large angular grits up to 7 mm long. Trench 4, rubble core, east wall, Structure 4 (context 402).

These sherds probably derive from the same pot. Their size and curvature suggest this was a large, straight-sided vessel. The fabric resembles Cool's (1982, 93–5) Type II, which at Broxmouth dates from 200 BC to the abandonment of the site around AD 100. The occurrence of the type at Traprain suggests it continues later than this, but a more precise range is currently hard to pin down. Both Types I and II pottery have been found at nearby Cockburn Law hillfort (Cool 1982, 98, fig 5).

- 13 **Fired clay fragment** 10.5 mm by 8.0 mm by 4.5 mm. Trench 4, rubble core, east wall, Structure 4 (context 402, find 3). Oxidized fragment of fired clay, with one original surface remaining. Too small to identify as either pottery or daub.

Copper ingot (illus 23)

- 14 **Plano-convex copper ingot** D 270 mm; H 80 mm; m 20.260 kg (DT 6).

This was found in 1976, claimed as Treasure Trove and allocated to the National Museums of Scotland. At that time the findspot was said to be some 100 m north-east of Edin's Hall, on the steep slope falling away from the site to the Whiteadder (A, illus 1). A second ingot was allegedly recovered by another finder in cultivated land some 150 m to the south-west of Edin's Hall around the same time (B, illus 1), but this could not be traced. However, during the current project the excavator managed to contact the finder, and discovered that the two ingots were

actually found together within the broch using a metal detector. The finder recalls that they were found stacked upside down in rubble, two feet below the floor of the southern intramural cell, near the base of the stair. The second ingot was passed to the now deceased owner of a former antiques shop in Berwick-upon-Tweed; its current whereabouts is not known.

The surviving find is a plano-convex ingot, the upper surface bearing traces of swirls either from stirring the metal while molten or from the metal pouring into a mould. Each alternative suggests it derives from a tapping furnace, where the molten metal was released from the furnace into a depression in front (for the type see Tylecote 1986, 22–3), although it could also represent the refined and recast products of smelting. Grass remains preserved in the corrosion products on the sides and base presumably derive from burial. Analysis in NMS laboratories (published by Tylecote 1986, 23) gave the following results:

97.2% Cu	2.6% Pb	0.1% Ag	<0.1% Fe	<0.1% Sb
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These suggest the ingot represents the product of primary smelting, with no alloying ingredients added. The lead content is higher than other analysed examples (Tylecote 1986, Table 11), but this may well stem from the accidental inclusion of some lead ore in the smelt rather than a deliberate addition: although lead is not noted in the scanty records of local ores, the co-occurrence of lead sulphide ores with copper sulphides (the prevailing ore type in the Duns area) is well attested. Edin's Hall lies only 1.4 km from the disused copper mines at Hoardweel, on the north bank of the Whiteadder (Wilson 1921, 132), and it seems most likely that this was a locally smelted product. One useful avenue of further investigation would be analysis of ores and ingots for any distinctive trace element patterns.

Tylecote (1986, 23–4, Tables 10 & 11) classed the Edin's Hall example as a Roman plano-convex ingot, a type known best from the copper-rich areas of north Wales. There are three other Scottish copper-alloy ingots of this general date: a much smaller cake from the Roman Iron Age hoard of Blackburn Mill, Berwickshire (Curle 1932, fig 22, no 33), which is tin bronze (D Dungworth, pers comm); an unpublished half-ingot from Dundonald, Ayrshire (referred to in Piggott 1953, 50; currently mislaid in the Dick Institute, Kilmarnock); and an ingot very similar to Edin's Hall from Carleton, Wigtownshire (Curle 1932, 374, with inaccurate analysis; Whittick & Smythe 1937). The latter's tin and lead contents suggested to Whittick & Smythe that it was a remelted and alloyed ingot of Welsh copper, although this is unlikely as the trace elements are markedly different; Tylecote (1986, 23) saw it as a primary ingot of Cornish origin, based on the tin levels. However, a local origin seems as likely given the proximity of the Tonderghie copper source, near Whithorn (Wilson 1921, 128–9). The levels of tin and lead suggest that it must have been remelted and alloyed.

The Edin's Hall and Carleton ingots certainly fall into the plano-convex series, although they are slightly squatter than average (Tylecote 1986, Table 10). However, Tylecote's Roman attribution seems implausible for Edin's Hall, given its 'rediscovered' context. This makes a re-examination of other examples worthwhile. The series as a whole is dated on the basis of the Roman inscriptions stamped into the surface of 12 of the 31 examples (Tylecote 1986, Table 10; Collingwood & Wright 1990, RIB 2403.1–12), largely recording the personal names of those involved in mining. In the strictest sense, this only shows that these examples (and unstamped ingots found with them) are Roman. Dating is vague for the remainder (Livens 1971, 249). Can it be argued that others are Iron Age? Context is rarely helpful, although two finds come from roundhouse sites on Anglesey, an association which Livens (1971, 250) is perhaps too hasty in dismissing. Such roundhouse groups do, however, continue into the Roman period. The key example is the fragment from Dinorben, Clwyd, found during excavations of the hillfort in

1912–22 (Gardner & Savory 1964, 109). It lay in the ditch associated with the north-east rampart of the site, in rubble fill which separated the primary cut from a secondary recut with sparse Roman material in its fill (Gardner & Savory 1964, 45–7, 226). The rubble presumably comes from demolishing the associated rampart. Unfortunately this ditch is hard to tie in to the overall site sequence, although Savory (1971, 29) suggests it must belong within site Periods III–V, most likely III or IV. Precise dating is unclear, but he suggests all three phases are securely pre-Roman (Savory 1971, 30), although it has been suggested that the Period V fortifications are a response to the Roman invasion (Cunliffe 1991, 188). Despite the uncertainty over dating, there are good grounds to argue that this fragment does represent an Iron Age example of a copper plano-convex ingot. Hence the series seems to have its origins in the pre-Roman Iron Age. The Edin's Hall ingot does find non-Roman parallels, therefore, although its date cannot be tied down to either the pre-Roman or Roman Iron Age.

This leads into the broader question of Iron Age copper use. While there has been insufficient analysis to determine whether local copper sources were used in the Scottish Iron Age, the Edin's Hall ingot is strong supporting evidence for the smelting of local ores. This is already attested in other areas, notably north Wales (Musson *et al* 1992, 279). This suggests that Iron Age use of the ore sources in southern Scotland is plausible and serves as a warning that it is unwise to be dogmatic about cultural attributions for these ingots without supporting evidence in the form of either inscriptions or context.

The Carleton ingot is less clear-cut. To date, no significant Roman presence is attested in Galloway, suggesting that it too may be Iron Age. However, mineral wealth was one of the main attractions of Britain as a province, and rapid exploitation of local metal resources under Imperial control is a well-attested phenomenon (Jones & Mattingley 1990, 179–80). To date there is little direct Scottish evidence (although see Bailey 1994, 307 for circumstantial evidence), but it would be foolhardy to dismiss the possibility of Roman military exploitation.

What conclusions can be reached? There now seems little doubt that the Edin's Hall ingots represent local exploitation of a local ore source, unconnected with the Roman military, although in chronological terms it may be earlier than or contemporary with the Roman presence. We may suggest that, firstly, the neighbouring mines are well worth attention as likely early mining sites; and, secondly, the wealth which enabled the building of an elaborate structure such as the broch may have been derived from control of such valuable copper resources. The Edin's Hall ingots represent a huge amount of wealth in an Iron Age context, given that prestige metal-work such as massive armlets typically use 0.8–1.8 kg of bronze, and the reconstruction of the Deskford carnyx weighs 3 kg.

The findspot of the ingot is clearly worthy of investigation. The deposition of such a quantity of valuable raw material may have been for safe-keeping, but is more likely to represent a votive deposit, an offering of the resource which brought wealth to the inhabitants, much as offerings of agricultural produce were made by people dependent on farming for a living (Hingley 1992, 23–4, 38–9). In the same way, the votive hoards from Carlingwark, Eckford and Blackburn Mill may be seen as offerings of raw material, in this case iron ready for recycling (Hunter 1997). It would be of considerable interest to know whether this offering was a foundation deposit, made during the building's life, or at its end.

Post-medieval glass

- 15 **Glass sherd**, olive green. Identified as post-medieval by Dominic Ingemark (Lund University). Trench 5, context 503 (find 7).



ILLUS 24 Socket stone described by Lefroy in 1870 and still on site in 1996

LOST AND UNCONFIRMED FINDS

Various fragments of querns were recovered during Turnbull's excavations (1881, 97, no 11) and were allegedly donated to the Museum of the Society of Antiquaries, although there is no record of this in the National Museums of Scotland (NMS) and they cannot now be traced. It is not known whether these were fragments of saddle or rotary querns.

Fragments of bone and teeth were recovered, mostly from within the rectilinear chamber outside the broch, but also scattered in all parts of the broch interior (*ibid*, no 6). Michie (1869, 43) more specifically mentions a quantity of burnt human bone and charcoal (it is unclear whether this identification of the bone was merely a field observation): the bones were removed to Edinburgh, and the charcoal was scattered among the surrounding debris and lost. The bones, too, were reportedly donated, but there is no record of them in the NMS collections. An oyster shell also formed part of Turnbull's excavation assemblage (Turnbull 1881, no 7). Its current whereabouts is unknown. Together with the bone and charcoal, this item may simply reflect former midden deposits.

The recovery of animal bone during the 1996 excavations at Edin's Hall had been eagerly anticipated on the basis of Turnbull's testimony, given the rarity of survival of such material on prehistoric dry-land sites in southern Scotland. In the event, the only animal bone recovered was a modern sheep burial from Trench 1. The absence of ancient bone might suggest either, as could be expected, that soil conditions were inappropriate for the long term survival of this material and that Turnbull's finds reflect modern losses; or that the distribution of ancient animal bone across the site was restricted to areas not investigated by the 1996 excavations.

Lefroy (1870, 61) mentions the discovery of a bronze fibula during Turnbull's excavations. This probably refers to the medieval ring brooch found in the early excavations (no 6, above), but could denote an Iron Age or Roman artefact now lost. Lefroy also reports a tradition of iron arms or armour having been found at the site in the 18th century. There is no other evidence that such a find was ever made.

A stone with deep, polished conical holes or depressions came from amongst the stones removed from the broch. Lefroy (*ibid*, 62) thought the depressions were formed by grinding weapons on the stone, but the object described is almost certainly a paving slab observed in 1996 lying by a heap of stones a few metres south of the broch entrance. This bears four depressions of varying dimensions and depth, two on each face (*illus* 24). The stone can confidently be identified as a socket stone for a door or gate, reused on three occasions. The stone remains on site.

Finally, an amber bead 'picked up amid the ruins of Edin's Hall' was displayed to members of the Berwickshire Naturalists' Club at Longformacus House in 1906 (HBNC 1906, 30). As the bead previously recovered by Turnbull (above, no 5) was donated to the National Museum before 1881, this must be a different artefact. No further details are recorded of this find, and its whereabouts are unknown.

DISCUSSION OF THE ARTEFACTS

The sparse finds assemblage is a poor reflection of an obviously complex site, and can throw relatively little light on it. The content of the artefact assemblage recovered by Turnbull (1881) tends towards those of more readily recognizable materials (glass, bronze), whereas the 1996 assemblage also contained types such as coarse pottery and burnt clay. This serves as a warning that Turnbull's assemblage is unlikely to be a representative sample of the material culture formerly within the excavated structures, as the more mundane items are under-represented.

The activities represented by the categories of finds are largely commonplace. In terms of dating, the diagnostic artefacts point to a Roman Iron Age date, although in part this reflects the fact that many items are only datable by reference to associations elsewhere with Roman material. The site clearly has a longer life than this, and material such as the pottery, the bronze stud and the stone tools would be at home in a late pre-Roman Iron Age context. The medieval brooch points to some later activity on the site, perhaps transient. The presence of Type I pottery on the neighbouring hillfort on Cockburn Law may point to an Early Iron Age phase there, while the occurrence of Type II pottery there seems to reflect occupation closer to that of Edin's Hall (Cool 1982, fig 5). On the evidence available, however, a relationship between the two sites cannot be established, especially as recent excavations in East Lothian cast some doubt on Cool's pottery typology (C Haselgrove, *pers comm*).

The scarcity of artefacts is not unexpected in a southern Scottish context. The nature of the material suggests that most was discarded as rubbish, although the intact nature of the amber bead allows for the possibility either of casual loss or deliberate burial as an offering, as must be the case with the amber necklace from Dun an Iardhard (Macleod 1915).

The copper ingot, as discussed above, may well represent a votive deposit within the broch. This is certainly the most important find from the site. The key point, apart from the rarity of such finds in Scotland, is that the ingot may represent the resource which gave Edin's Hall its wealth. This wealth is manifested in complex architecture (ie the broch) but is little reflected in the material culture, where only the amber bead points to an exotic and, hence, potentially high-status component.

PALAEOENVIRONMENTAL ANALYSES

Michael Cressey

CHARCOAL

Analyses of fractured charcoal samples were carried out using reflective light microscopy, examining the transversal sections and where necessary longitudinal surfaces. Comparisons were made against keys listed by Schweingruber (1990). Alder (*Alnus*), birch (*Betula*), hazel (*Corylus*), oak (*Quercus*) and pine (*Pinus*) were present, but the results (Table 3) demonstrate that charcoal was rare within the excavated deposits. The material from Structure 4 was recovered from both occupation deposits and from a construction trench fill, and none of it appeared to reflect *in situ* burning. While the material sealed beneath the paving in the broch may reflect domestic waste, and thus reflect the primary occupation of this structure, it may also represent redeposited or contaminated material; sufficient doubts remain about the taphonomy of the charcoal to warn against obtaining a radiocarbon date from it (P J Ashmore, pers comm).

TABLE 3

Charcoal identifications

(Tr = trench no; C = context no)

Context	Species	Weight (g)	Type	Notes
Broch; from beneath paving (Tr 5, C508)	<i>Betula</i> sp	0.57	small roundwood	
	<i>Corylus</i> sp	0.04		
	<i>Quercus</i> sp	2.80		
	<i>Pinus</i> sp	0.01		
Structure 4, residual occupation (Tr 4, C406)	<i>Betula</i> sp	3.52	roundwood	up to 12 yrs old
Structure 4, residual occupation (Tr 4, C412)	<i>Alnus</i> sp	0.37	roundwood	6 yrs old
Structure 4, construction trench fill (Tr 4, C418)	<i>Betula</i> sp	0.54	roundwood	

POLLEN

The buried turf (context 331) and buried soil (context 332) sealed beneath the outer fort rampart investigated in Trench 3 (illus 10, section Y-Z) were sampled for pollen analysis. The samples were taken in two Kubiena tins, from which four contiguous samples (Edin 1–4) were taken at 10 mm intervals. These were treated using Potassium Hydroxide, Hydrofluoric acid and Acetolysis, according to the method described by Moore *et al* (1991, 43–5). Table 4 lists the taxa encountered and their relative frequencies. Identification was made with reference to standard keys in Moore *et al* (1991) and where appropriate, by comparison with type slides. Micro-charcoal was present in all samples and due to its abundance, fragments of charcoal greater than 100 µm were recorded. Five classes of pollen preservation state were recorded: normal, corroded, crumpled, degraded and split.

Results

The analytical results show that the samples taken from the *in situ* turf layer contain a lower frequency of Poaceae (grass) grains than in the two samples taken from the buried soil layer. Cyperaceae (sedge) pollen is present in high amounts from the turf layer samples but is absent from the buried soil samples. Sedge appears to have formed the main component of the living turf

TABLE 4

Pollen analysis of four samples from beneath the outer fort rampart in Trench 3

Sample	Edin 1	Edin 2	Edin 3	Edin 4
Context	331	331	332	332
Trees	%	%	%	%
<i>Pinus</i>	0.5			
<i>Alnus</i>	0.5		1.0	1.4
<i>Ulmus</i>				0.3
Shrubs				
Coryloid	1.4	1.8	1.4	0.3
<i>Hex</i>		0.3		
Ericaceae			1.0	1.0
Herbs				
Poaceae	35.1	33.8	63.7	70.1
Cyperaceae	44.6	23.4		
Caryophyllaceae	0.5	0.9	4.7	7.4
Chenopodiaceae	0.2	4.2	5.0	2.1
<i>Rumex</i>	0.2	0.6	1.0	5.3
<i>Saxifraga</i>	0.3	1.7		
Compositae liguliflorae	0.8	0.9	6.1	5.3
Spores				
Filicales	1.7	31.7	11.2	7.4
<i>Pteridium</i>	1.0			
<i>Polypodium</i>	0.2	1.8	1.8	1.4
<i>Selaginella</i>	2.5			0.3
<i>Sphagnum</i>	2.5	0.9	1.0	1.0
Total pollen incl. spores	347	328	276	281
Total taxa	13	13	11	15
Concentration (grains per cu cm)	36915	28820	23753	15189
Pollen preservation				
Indeterminable	10.6	17.3	16.6	7.4
Normal	8.6	5.4	8.6	10.6
Corroded	4.6	14.3	9.4	4.2
Crumpled	37.7	21.6	59.4	70.4
Degraded	27	56.7	21	15.6
Split	10	2.7	0.3	1.4
Microscopic charcoal				
Total fragments	204	177	190	123
% pollen/inclusions	58.7	54	69	44

and suggests that conditions were wet enough for this species to thrive in the wetter hollows across the site. Arboreal taxa are low (< 1.4%) in samples from both contexts, and are represented by *Pinus* (pine), *Alnus* (alder) and *Ulmus* (elm).

Herbaceous taxa attain a much higher frequency in the buried soil layer than in the turf horizon and are represented by Caryophyllaceae type (chickweed/campion family), Chenopodiaceae (fat-hen/goosefoot family), *Rumex* type and Compositae liguliflorae (daisy/dandelion family). It was mentioned previously that Poaceae pollen is higher in the samples from the buried soils (63–70%); 70% of these grains were in the crumpled category. The Poaceae pollen identified in the 'normal' category did not have annuli diameters of 8.0–10 µm or greater, which normally implies major cultivated cereal species (Andersen 1979; Moore *et al* 1991). The high occurrence of grasses and sedges and the high proportion of Filicales (ferns) (31.7%) in the lower sample from the turf may well be due to taphonomic factors (soil movement) that have resulted in their

preservation. The higher proportion of degraded grains (56.7%) was recorded from the lower sample within the turf layer. These results may be due to micro-fauna activity immediately below the living turf.

The high frequencies of Caryophyllaceae undiff. (7.4%), Compositae liguliflorae (5.3%) and *Rumex* type (5.3%) may be associated with both cultivation and fallow ground (Behre 1981).

Conclusion

In the absence of soil micromorphological study of the soil profile, it is uncertain whether the buried turf layer had undergone truncation or modification. However, it is considered that the results obtained do reflect the local environmental conditions in broad terms at the time of construction of the outer fort rampart. The high proportion of Poaceae and Cyperaceae along with the higher proportion of herbs associated with fallow and pasture suggest that the local environment was dominated by grassland. The turf layer contained a large sedge component which can be taken to suggest damp conditions. The charcoal content is high in both sets of samples and is probably the result both of local (on-site) burning as well as long-range aerial transport.

DISCUSSION

The discussion of Edin's Hall falls into two parts. Firstly, the component parts of the site, following the descriptive scheme used above, are evaluated in the light of current work and recent studies of comparable structures. An interpretation of the development of the site is offered. Secondly, the significance and status of Edin's Hall, and its broader relevance to later prehistoric and Roman Iron Age studies, are considered.

THE FORT

As an example of a Tyne/Forth hillfort, the topographic location, size and known characteristics of Edin's Hall are unexceptional; rather secondary developments within it have distinguished the site. Its position on a terrace above a water-course is a common setting for such sites in the eastern Scottish Borders (eg Preston Cleuch, one of the Bunkle Edge forts nearby: Christison 1895, 167–9; Lynn 1895), and conforms to Macinnes' (1984a, 181) 'scarp-edge' type. The site is overlooked from the slopes of Cockburn Law to the south. Its topographic siting does not appear to reflect primarily considerations of defence, and thus the appropriateness of the term 'fort' as a functional site classification is questionable. A variety of non-defensive, social factors may be relevant to the particular choice of location for Edin's Hall and the motives for bounding the site (cf Collis 1996 for a recent discussion); such issues, however, require examination at a regional level rather than on a site-by-site basis. These factors were undoubtedly somewhat different to those relevant to the siting of the hilltop enclosure on Cockburn Law (illus 1). The chronological and/or functional relationships between these two sites are still a matter of speculation.

The available evidence indicates that the enclosing works were of uncomplicated form, comprising two ramparts with external quarry ditches (the outer quarry ditch being absent to the north). The excavations did not identify any certain evidence of phasing within the enclosing works: the outer rampart appeared to have been constructed after the inner in Trench 3, but the interval between these events is unknown and may have been brief. Moreover, no remains of earlier enclosing works (such as palisade lines) were revealed in the excavation trenches; but these

were limited in extent and provide insufficient evidence to rule out the possibility that the use of the site extends back further than hitherto demonstrated.

The varying scale and composition of the fort earthworks reflect the heterogeneity of the material quarried from the ditches for their construction, rather than evidence for rebuilding in different materials. To the south-west thick natural deposits of relatively soft clay-silt soils were excavated from ditches, probably up to 3 m deep, to create dump ramparts provided with external retaining walls. Elsewhere, bedrock is widely present near the surface, and proved much more resilient to removal. This resulted in the excavation of narrower (and presumably shallower) ditches, and the construction of walls with boulder faces and a rubble core. The observations from Edin's Hall thus urge caution in attempting to reconstruct chronologies from the typological classification of ramparts.

The greater size of the earthworks composed primarily of earthen material is thus partly a pragmatic response to prevailing ground conditions. However, patterns of survival are probably also important in this regard: the poor survival of the walls (eg Trench 7) is likely to reflect recycling of stone for use elsewhere, such as in the broch and settlement. In the north-east quadrant of the fort, this may have been one factor which contributed to the complete removal of the earthworks. By contrast the dump ramparts appear to have been largely undiminished, except by natural forces of erosion (including rabbits).

Without excavation, there is no way of confirming the number and position(s) of original entrances, although at least two can be posited on the available evidence. Certain traces of any primary internal occupation have been obscured by secondary developments. However, it is a reasonable assumption that one or more timber roundhouses are likely to have been present. The positions of primary structures may of course coincide with the platforms within the enclosing works which were latterly occupied by stone-built roundhouses. Recent excavations of Iron Age sites in south-east Scotland and Northumberland (eg Belling Law: Jobey 1977; The Dod: Smith 1982; The Dunion: Rideout 1992; cf Hill 1982a, 27) suggest this was a relatively common phenomenon. John Turnbull (1881) appears to have detected no evidence of sequence within the structures at Edin's Hall, but this may simply reflect contemporary techniques and standards of excavation practice. The present excavations provided tentative evidence of activity preceding the stone-built houses in two of the three examples examined (Structures 1 & 4, above).

The only artefact recovered from a context potentially associated with the enclosing works was a medieval ring brooch (Catalogue no 6), discovered during Turnbull's excavations when cutting through the inner rampart at Break G (illus 5). It can reasonably be surmised that this was a stray or surface find, and as such is of no use as a dating tool.

In summary, the current fieldwork has brought the origins and early development of this site a little more clearly into focus. The visible enclosing works are, by parallel with other excavated sites, likely to represent activity in the second half of the first millennium BC. The Hownam sequence is not universally applicable in the Tyne/Forth area (eg Harding 1982; Ralston 1996), a recognition which warns against either an attempt at precisely dating Edin's Hall by the character of the earthworks alone or assuming a longer chronological sequence at the fort than has yet been detected.

THE BROCH

To describe the largest structure at Edin's Hall as a broch is to use terminology that is increasingly regarded as redundant in the context of Atlantic Scotland (eg Armit 1990a), and from that region the influences for several of the architectural elaborations of the Edin's Hall structure must have

derived (cf Macinnes 1984b). Armit (1990b) has proposed a revised hierarchical scheme of 'broch towers', 'complex Atlantic roundhouses', and 'Atlantic roundhouses' to classify the structures of the north and west, the classification of any individual structure being dependant upon the degree of architectural elaboration. Other terms, such as 'substantial house' (after Hingley 1992, 27–8) or 'complex roundhouse' (adapting Armit 1990b; and in the absence of positive evidence that Edin's Hall was a 'broch tower') are perhaps more appropriate, if less evocative, descriptive terms for Edin's Hall. However, this is not the place to become bogged down in a terminological mire: a fresh review of the Iron Age structures of southern Scotland is warranted, but is beyond the scope of this report. The term 'broch' is retained, therefore, though in anticipation of its being superseded.

The Edin's Hall broch is a thick-walled drystone structure over 18 m across internally. It incorporates architectural characteristics such as a complex entrance passage (once lintelled) with 'guard chambers', and intramural cells (once corbelled) and stair, which are of indubitably northern influence and exotic to the Tyne/Forth settlement and structural record. Regrettably little is known of what was discovered in this structure during the excavations around 1870 (J Turnbull 1881). Paving was identified within the entrance passage, a quadrant of the central court adjacent to this, and in certain of the intramural chambers. The pattern of partial paving in the central court appears to be a local phenomenon, and is reflected in many of the structures forming the adjacent settlement. Remains of fires were located at various points around the periphery of the central court and in intramural chambers (illus 7). There is no way of telling whether these were primary features or secondary (even 'squatter') characteristics of the structure. No foundations for timber uprights were identified within the central court, by which a reconstruction of the superstructure and method of roofing might have been attempted (although any such features are likely to have survived Turnbull's attentions and may remain to be discovered). The depth of deposit removed was not recorded, but in the evidence of an early sketch of the broch (illus 3) appears to have been no more than 0.5 m, nor was there any record made of secondary internal features encountered. Excavations of comparable structures are of little assistance in predicting what might have been encountered at Edin's Hall: some have contained a considerable sequence of deposits (eg Torwoodlee: Piggott 1951; Leckie: MacKie 1982), whereas others have revealed comparatively little (eg Hurly Hawkin: Taylor 1982; Castlehill Dun: Feachem 1959; Stanhope Dun: Maclaren 1962).

Despite the deficiencies of Turnbull's account, evidence of structural sequence is apparent in the broch. Many of the intramural chambers have secondary walls subdividing them into smaller units, possibly reflecting changes of function, and a curving wall was added to the exterior of the structure, to lengthen the entrance passage and prevent direct access (perhaps as much by wind as people). Moreover, the 1996 keyhole excavation (Trench 5) within the central court indicated that the paving exposed by Turnbull sealed an earlier cobbled surface, and may not represent the primary floor.

Without evidence of a scarcement or a detailed excavated ground plan, there is little merit in attempting to reconstruct the original form and height of this structure. There is little reason why it could not have been an imposing tower, standing several metres high. If so, however, very considerable amounts of tumbled stone must have been removed from the structure before any of the accounts based on antiquarian visits were compiled.

A small assemblage of artefacts was recovered from within and immediately outside the broch. Unfortunately no findspots were stated for the two chronologically sensitive items, the first or second century AD glass armlet fragment, and the domed bronze stud head of possible pre-Roman Iron Age date (Catalogue nos 4 & 7), although these indicate occupation of the site

contemporary with that of many of the other excavated brochs of southern Scotland. The absence of Roman or provincial Roman items from this site is of particular interest given the frequent linking of the origins of southern brochs and duns with the Roman occupation, and is discussed further below.

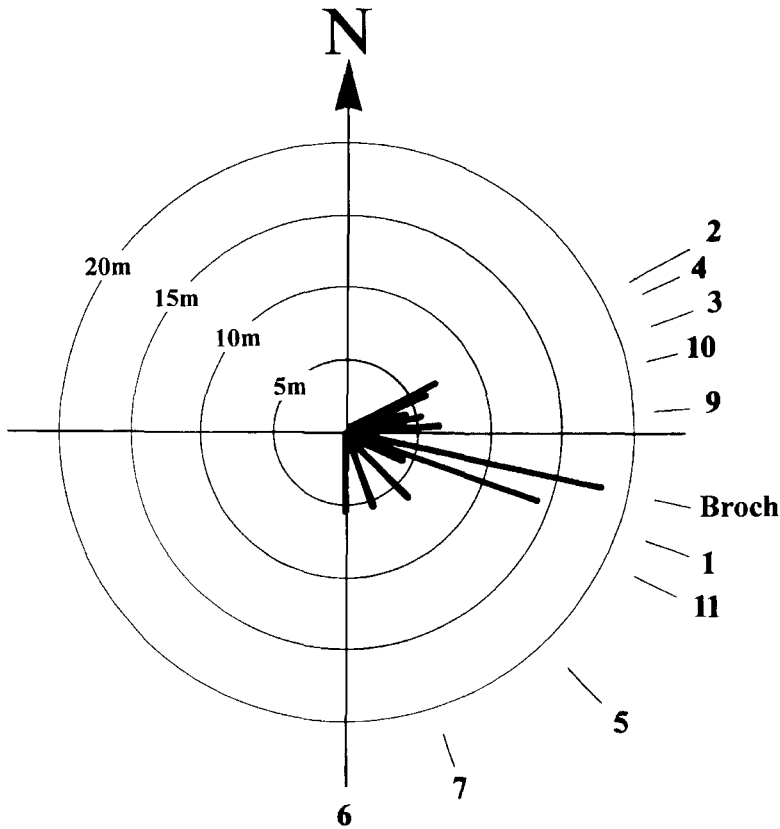
There seems little doubt that the broch was constructed as a status symbol reflecting the wealth and importance of its occupants (cf Macinnes 1984b; Hingley 1992). This is reinforced by its being set within its own enclosure. The enclosure wall, where well preserved (eg as excavated in Trench 1), is itself an imposing structure, and was presumably intended at least partly as a symbolic boundary separating the occupants of the broch from those of the adjacent and, at least partly, contemporary settlement. The differences in surviving heights of the enclosure wall, as with the fort ramparts, primarily reflect the variable nature of materials used in its construction. On the south and west sides, where accompanied by an external quarry ditch, the wall was built largely of earthen materials; elsewhere it appears to have been entirely stone-built, and thus has subsequently been more extensively robbed for reuse elsewhere.

THE SETTLEMENT

Structural characteristics

The spread of stone-built structures and enclosures built within and over the enclosing works of the fort represent a settlement form which is common in south-east Scotland and Northumberland: Jobey (1974, 18) recorded 225 examples of stone-walled settlements in the region between the Roman walls. The house type has been classified as 'Votadinian' by Hill (1982a; 1982b, 8–12). Edin's Hall represents one of the 71 examples of such settlements cited by Jobey (1974, 22) within the former counties of Berwick, Peebles, Roxburgh and Northumberland which overlie former hillforts. The 13 structures identified to date outside the broch enclosure at Edin's Hall place it within the largest 10% of such sites, based upon the number of visible houses, recorded by Jobey (*ibid*, 18, fig 1). Such settlements were conventionally regarded as being a Romano-British phenomenon, but are now generally regarded as initially a pre-Roman Iron Age development (Armit & Ralston 1997, 179).

Most of the structures are of circular or sub-circular form, and these display a series of recurring characteristics. Those within the enclosing works of the fort tend to be set on platforms cut into the hillside, with boulder faces revetting the edges of the scoop and the remaining sectors of wall freestanding. Those outside the fort are generally recessed on one side in a similar fashion into the fort ramparts. The structures have broadly east-facing entrances (illus 25), the most common alignment for later prehistoric roundhouse entrances and perhaps imbued with cosmological significance (Parker Pearson 1996; Armit 1997, 99; Oswald 1997). Little is known from Turnbull's (1881) excavations of the internal arrangements of these structures. The presence of paving in the entrances and an adjacent quadrant or one half of the interior appears to be the norm, and is paralleled for example in Hut 5 (similarly a secondary construction within an enclosed site) at Earn's Heugh, Coldingham (Childe & Forde 1932, 163). It is unclear whether the lack of mention by Turnbull of hearths and other internal features characteristic of 'Votadinian' houses (after Hill 1982a, 27), and of post settings in the floor, reflects a real absence or simply the quality of the 19th-century excavations. The 1996 excavations within three of the structures revealed only the bedrock bases of the scoops exposed by the original quarrying. Few artefacts have been recovered from these structures to date, and these are not chronologically diagnostic. With such patchy evidence, it is unclear whether all the structures were necessarily for habitation.



ILLUS 25 Entrance orientations and internal dimensions of the broch and roundhouses at Edin's Hall

In terms of the details of their construction, the structures represent a reasonably homogenous group; it is in terms of their size that the structures vary most. The majority fall within the range typical for 'Votadinian' stone-built houses, with internal dimensions between 4.5 m and 7.5 m. Jobey (1974, 21) cites a range of 4.5–9.1 m for 25 excavated stone-walled huts, whereas Hingley (1992, 28) notes that most are less than 6 m across. Two structures at Edin's Hall do not fall within this pattern: one likely unexcavated example (Structure 13) is very small, and the other very large (Structure 1). Of the former, little can be said without confirmation of its nature and function. It need not be a domestic building. The size of the latter, at over 14.5 m in diameter, is unparalleled in this author's knowledge among the stone-built roundhouses of south-east Scotland (see relevant RCAHMS inventories), apart from the small group of brochs and duns, and is indeed greater than several of these (eg Leckie, c 9.65 m: MacKie 1982; Torwoodlee, 13 m: Piggott 1951; Hurly Hawkin, 12.5 m: Taylor 1982). If Structure 1 was a domestic dwelling it would certainly have been a 'substantial house' (after Hingley 1992). However, a non-domestic, communal origin is also possible (as can be argued for other 'substantial houses'), but is not demonstrable on currently available evidence. It is perhaps significant with regard to its function that most of its internal court, rather than just a quadrant, was found by Turnbull (1881, 94) to have been paved. Structure 1 lies towards the centre of the enclosed zone of the fort, and lies early within the sequence of remains in this area, apparently preceding the construction of the broch enclosure wall. Perhaps it had a focal role within the settlement.

The two rectilinear structures also stand out within the settlement. Structure 8 may represent no more than a small storage chamber inserted between Structures 7 and 9: it is certainly too small to be realistically considered a domestic dwelling. The well-preserved rectilinear structure adjacent to the broch presents more of a puzzle. It is tempting to dismiss it as a medieval or post-medieval bothy of no relevance to the later prehistoric settlement, and it is this author's opinion that this is the case. The artefacts recovered from it by Turnbull (1881) may have derived from earlier deposits into which the rectilinear structure was subsequently set.

Settlement development

Three strands of evidence relating to the settlement — excavated data, surface topography, and spatial organization — combine to indicate that the detectable structures reflect a developing settlement, rather than a single phase of occupation. These strands are insufficient to allow the evolution of the settlement to be documented, but indicate general trends. It is not known, of course, whether the population of the settlement expanded over time — to demonstrate this would require information on the functions and contemporaneity of the various structures (cf Jobey 1974; and Burgess 1984, on Hetha Burn, Northumberland).

Examples of surface topography indicating rebuilding, as well as evidence of extensions to the settled area, have been presented in the site description, and need not be repeated in detail here. It is argued that the early structures of the settlement lie within the former fort, quite possibly occupying the stances of earlier timber houses. In this area there is evidence of realignment of the enclosure boundaries, and the truncation of a building by the axial passage leading to the broch enclosure. The structures with their own yards built over the fort's enclosing works appear to represent an expansion of the settled area. This effect is comparable to that proposed within the settlement at Hownam Rings (Piggott 1948), where a spread of stone-built houses lie within the fort yet an enclosed 'homestead' was built over the disused fort earthworks.

The excavated evidence provides limited information on features preceding the stone-walled buildings. The walls of Structure 4 provide the most convincing excavated evidence of complexity, and probably of sequence. The walls comprised two concentric inner wall-faces, behind which ran a construction trench for a timber feature, itself overlain by rubble backing the stone wall-faces. This suggests that the trench might relate to an early phase of timber house construction. Similarly, the two stone faces suggest a subsequent gradual reduction or shifting in the floor area with the rebuilding of the structure, in much the same way as was proposed by Hill (1982c, 173–5) for House 4 at Broxmouth. Three sequential builds on the same platform can thus be proposed and, as noted above, the building of stone houses on stances for earlier timber structures has several parallels. It is thus arguable that the scooped platform was created for the erection of a timber structure within the hillfort, and that a stone hut latterly occupied the platform as a component of an effectively unenclosed settlement.

Alternatively, the construction trench in Structure 4 and at least one of the stone faces could be viewed as elements of a composite stone and timber structure. The excavations between 1928 and 1939 at Edgerston, Jedburgh (RCAHMS 1956, 225–8, no 457) revealed in three stone-built houses evidence of a continuous slot containing stone-packed post-sockets embedded within the thickness of the wall, a little behind the inner face, interpreted as an anchor slot for the lower ends of the roof timbers. (In the absence of published records for this site, it is not known whether two construction phases have been misinterpreted as relating to a single structure.) A similar problem was faced by Rideout (1992, 88–91, 111–12) in his excavations at The Dunion. At that site, House 2 demonstrated two structural phases, with a timber wall-slot directly overlain by a

stone wall. At House 1, by contrast, a timber wall-slot ran immediately outside a stone wall, with no physical relationships between the two, leading the excavator to suspect two structural phases, but without stratigraphic proof.

STATUS AND SIGNIFICANCE

Exploring the potential relationships between the broch and settlement is critical to understanding the origin, social significance and context of the broch. Three basic possibilities exist: (1) a high-status individual or family unit founded a broch on an unoccupied site, beside which a settlement sprang up; (2) the broch was constructed during the lifetime of the settlement, reflecting an aggrandizement of at least some of the latter's occupants; and (3) the broch and the settlement are entirely separate chronologically.

Recent commentators have tended to prefer option 1, arguing that the settlement is at least partly contemporary with the broch (eg Macinnes 1984b, 236; Hingley 1992, 28–9). That the settlement appears to be excluded from the immediate vicinity of the broch supports the notion that the broch and settlement were coexistent (options 1 & 2), and argues against them representing chronologically discrete settlement horizons (option 3). The site as a whole has been regarded as a southern parallel for Gurness (Ritchie 1988, 74), which again assumes the primacy of the broch. While this model of settlement development is appropriate to Atlantic Scotland, it need not be applicable to a superficially similar site in the south-east, with its distinct settlement development, especially as the southern brochs are no longer commonly regarded as the homes of northern invaders (Macinnes 1984b, 237). It is notable that at northern settlements such as Gurness, the broch and lesser structures generally lie within a common boundary; whereas at Edin's Hall the broch is set within its own enclosure and isolated from the stone-walled houses, a distinction which must be relevant to understanding the status of its occupants.

The majority of southern Scottish brochs appear to have stood in isolation, which might support an argument for the primacy of the Edin's Hall broch. However, the passage and broch enclosure seem to be secondary developments to certain of the elements of the settlement, and tend to contradict this. Regrettably, we cannot currently determine whether the broch was built before its enclosure and passage, and thus a vital link in the argument is missing. The evidence certainly does not discount the possibility that the settlement existed before the broch. Perhaps even Structure 1 — a substantial house — formed the original focus of the settlement, latterly succeeded in this role by the broch. (This is not to argue that Structure 1 represents a prototype broch: the building derives from a local architectural tradition.)

Comparisons with Gurness (eg Ritchie 1988, 74) attempt to explain Edin's Hall within an inappropriate social milieu. Northern sites demonstrating sequences of Atlantic roundhouses, such as Howe, Orkney (Ballin Smith 1994), are not helpful for comparative purposes either. Hingley (1992, 28) proposed that southern brochs and duns were local stone versions of 'substantial houses' incorporating distinctive features of complex Atlantic roundhouses, resulting from widespread social and political networks. Yet this explains only how, but not why, such novel architectural forms were adopted in southern Scotland.

The influence of the Roman incursions north of the Tyne/Solway is generally regarded as pivotal in understanding the origins of the southern brochs, although the precise mechanisms involved are contentious (reviewed by Macinnes 1984b). The link is emphasized by the occurrence of Roman or provincial Roman artefacts recovered within many of the excavated structures, in some cases forming a substantial proportion of the finds assemblage (eg Torwoodlee: Piggott

1951). Macinnes (1984b) has argued that the Flavian conquest, and to a lesser extent the Antonine, were consolidated by the restricted distribution of Roman goods to the local élites.

That Roman material has not been recovered from Edin's Hall broch, a high-status building within what is often thought to be philo-Roman Votadinian territory, is striking. While this can be explained as an accident of archaeological survival, other possibilities also arise. Roman military settlement appears not to have extended east of Inveresk or into the Lammermuirs, and it may be that Edin's Hall was sufficiently far from the centres of Roman settlement to lie outwith exchange or trade networks. The source of wealth displayed in its architectural elaboration may in fact lie much closer to hand, in the copper ingots found within the broch and the copper mine beside the Whiteadder at Hoardweel (see Hunter, above). Although a direct link between the ingots and this source has yet to be proven by comparison of trace element patterns of ore and ingot, it seems highly likely that the occupants of Edin's Hall broch had access to, or control of, the mining of this precious commodity. The recovery context of the ingots, deliberately deposited beneath the raised floor of an intramural cell — whether in hiding or for votive purposes — demonstrates the significance of this resource to the occupants of the broch. Ingots such as these would presumably have been used for alloying and the subsequent production of prestige native ('Early Celtic') bronze-work which flourished in the later first millennium BC and early first millennium AD (MacGregor 1976). Nothing has been recovered from Edin's Hall besides the ingots to suggest an involvement in either metal-winning or goods production; but there is no reason why such activities should have taken place on-site. It is highly probable, therefore, that this valuable mineral resource contributed largely to the wealth of the inhabitants at Edin's Hall, and at some stage translated into monumental architecture. In this perspective the abnormally large size of Structure 1 should be considered. Might the scale of this structure also reflect access to the mineral source, before the broch was constructed?

Thus the appearance of the broch at Edin's Hall need not be directly or solely related to the Roman presence, but rather to local developments. More definite evidence is required to resolve the problems of absolute chronology of the development of the settlement and broch at Edin's Hall. The demonstration of independent means to acquire wealth does not divorce Edin's Hall broch from a Roman Iron Age context, which appears to be attested by other artefacts (eg glass armlet fragment) but removes the need to consider the Roman military as a causal factor in social changes leading to the appearance of the broch. The proximity of this resource might also begin to explain the presence of a substantial stone-built settlement with some longevity of occupation at this particular location, as opposed to any of the other former forts in the vicinity without such activity.

CONCLUSIONS

The highly photogenic qualities of Edin's Hall, particularly from the air, have entailed its regular appearance in synthetic studies of the Iron Age and Roman/native interaction in northern Britain (eg Breeze 1996, pl 15). Yet Edin's Hall has been largely peripheral to detailed studies of southern brochs and duns (eg Macinnes 1984b), in large part due to the evidence recovered from more recently, and better, excavated sites (eg Torwoodlee: Piggott 1951; Leckie: MacKie 1982), but also as a result of the uneven quality of previous accounts of Edin's Hall itself. In consequence, much has been taken for granted about the structural sequence, chronology and context of the site and writers have tended to overlook the complexity that is detectable (eg Hingley 1992, 29). For example, the significance of the broch within the sphere of Roman/native interaction is probably less straightforward than often recognized. There is no direct evidence of Roman influence at the

site, and a source of wealth in metal ores, unrelated to the Roman presence, can be posited. At a general level, to closely associate all southern brochs and duns with the short periods of Roman occupation in southern Scotland is to over-simplify matters: this does not explain why, for example, some of the excavated sites in the Forth Valley (eg Fairy Knowe: Main 1998; Leckie: MacKie 1982) have revealed many Roman artefacts, whereas others (eg Tappoch: RCAHMS 1963, 85–7, no 100) have yielded none. At Edin's Hall it is possible to propose the appearance of the broch within the first two centuries AD, during the lifetime of the 'Votadinian' settlement. Its appearance can be linked not directly to the Roman presence, but to the translation of wealth obtained by access to a mineral resource into striking architectural elaboration of a type fashionable elsewhere at that time in southern Scotland. Such a model must be regarded as provisional and open to reinterpretation through the recovery of more securely stratified dating material.

This report has attempted to collate the results of both previous and recent work at Edin's Hall, and to provide an up-to-date account of its context and significance. Many of the suggestions presented above derive from surface observation of the remains; upon excavation these may prove to have been unreliable indicators of character and sequence. In the meantime, exploratory excavations have demonstrated that plenty has survived the attentions of previous excavators, and that much could be learnt by further investigation. It thus seems unlikely that this report will represent the final word on this fascinating site, but it is hoped that interest has been renewed.

ARCHIVE AND FINDS DISPOSAL

The project archive has been deposited with the National Monuments Record of Scotland. The finds were allocated by the Finds Disposal Panel to the National Museums of Scotland.

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