

RECONNAISSANCE EXCAVATIONS ON EARLY HISTORIC FORTIFICATIONS  
AND OTHER ROYAL SITES IN SCOTLAND, 1974-84: 4, ALI CLUI,  
CLYDE ROCK, STRATHCLYDE, 1974-75

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## INTRODUCTION

When the idea of a systematic campaign of excavation on historically-referenced fortifications in Scotland was originally conceived in 1973, Castle Rock, Dumbarton was the obvious first objective, for three reasons. Firstly, there was excellent written evidence for it as a major political centre by AD 731, and for its destruction in 870; and more shadowy evidence that it had been a seat of kings in the seventh century, and possibly even in the sixth and fifth. Secondly, the suggestion had been aired that it was a 'nuclear fort', a major class of Early Historic fortification, so that its excavation would add to our knowledge of a class of which only one example, Dunadd, had been excavated at that time. Thirdly, the closeness of Dumbarton to Glasgow meant that the logistical problems of our first excavation in Scotland would be relatively slight.

The excavations were carried out by a team of between 12 and 18 diggers, during two seasons of three weeks each, in 1974 and 1975. In 1974, the hypothesis of a nuclear fort was tested in three Cuttings, A, B and C, and was conclusively disproved. A level terrace on the eastern hill was also partly examined in Cutting D. Only a single potsherd relevant to the Early Historic period was recovered, but the season amply demonstrated the problems of digging on a site where military use had extended to AD 1945. In 1975, therefore, the main work was undertaken outside the medieval walls in Cutting E, where an early rampart was uncovered. Cutting D was also more widely explored, and two terraces on the western hill were stripped (Cutting F); but no determinate traces of buildings were found in either case.

The present report begins by listing the written references to the Rock, with some attempt to evaluate their historical reliability. The relevance of the site to the overall campaign of research is thereby established. The physical character of the Rock, and its topographical

setting are then described. The excavation report proper begins with an examination of the nuclear fort hypothesis in Cuttings A, B and C, supported by detailed features and finds lists from those cuttings. The evidence for a rampart in Cutting E is then discussed, again with the support of features and finds lists. Cuttings D and F are then described summarily, but the relevant features and finds lists have been deposited in the Site Archive and are not printed in full detail here. A catalogue of finds attributed to the first to ninth centuries AD follows. Following a discussion of the radiocarbon age-estimates from Cutting E, the chronological significance of the written, artefactual and radiometric evidence is assessed and a historical synthesis is presented for Early Historic Dumbarton.

#### HISTORICAL REFERENCES

This collection of historical references is largely restricted to direct mentions of Castle Rock, Dumbarton. These normally occur in the form of Irish or British versions of 'Clyde Rock', Bede's *Petra Cluit*. Where a reference, for instance to a king of Strathclyde, does not expressly mention Clyde Rock, it has been omitted. This is not the place to write a history of Strathclyde in the early medieval centuries, fascinating and important in northern British history though that was. An enthusiastic account of the role of Strathclyde and of the activities of its kings will be found in Smyth, 1984; reference should also be made to Kirby 1962. For the Strathclyde pedigrees, see Miller 1976; a critical view might be that the first secure historical figure in Strathclyde was Owain, victor of the battle of Strathcarron in AD 641 = 642.

References are assembled here in chronological order, with a brief commentary on the reliability of the source where that seems appropriate. I have endeavoured to use the best available and most accessible printed version of the original texts. The translations are normally my own, though obviously they owe much to the editions cited here. The following customary abbreviations are used: AC = Welsh Annals, Morris 1980. AT = Annals of Tigernach, quoted from ESSH. AU = Annals of Ulster, Mac Airt & Mac Niocaill 1983. EHD, Whitelock 1955, 1979. ESSH, Anderson 1922. HE = Bede, *Ecclesiastical History*, Colgrave & Mynors 1969. HR = *Historia Regum*,

quoted from EHD. SAEC, Anderson 1908. VC = Life of Columba, Anderson & Anderson 1961. VP = Life of Patrick, Hood 1978.

Whenever possible, annalistic dates are cited; but when these are not available, approximate dates are quoted in Bold type, with Roman numerals denoting centuries, followed by A, B, C for 33 year 'generations'.

V B ? VP cap 29 'Concerning the conflict of St Patrick with Coroticus, king of Clyde Rock' [*Coirtech rogem Aloo*].

This is from the secondary, inserted, contents list of Muirchu's *Life of St Patrick*, compiled in the seventh century. The reference is to Patrick's well-known letter to the soldiers of Coroticus, condemning them for slave-raiding among Patrick's Christian converts. The letter contains no indication of where Coroticus reigned; and since the name Ceredig or Ceretic is known at about this time in both the Strathclyde and the Ceredigion genealogies, there is at least an element of ambiguity as to whether or not we are dealing with a king of Clyde Rock.

Failing contemporary evidence, we might be grateful for Muirchu's identification, albeit two centuries after the event, were it not that his account of the conflict between holy man and tyrant ends with the latter disappearing from his court in the form of a little fox. On the other hand, the annals make it plain that events at Clyde Rock, including the names of rulers, were well known in Ireland. Certainly we should prefer Muirchu's identification to the wildly imaginative reconstruction of Thompson 1985.

VI C VC 22b [I 15] 'The blessed man's prophecy concerning king Roderic, son of Tothail, who reigned in the rock of Clyde [*in petra Cloithe*].

Presumably Adomnan learned this from the traditions of the Iona community.

AU 658 'Death of Guret, king of Ail Cluaithe'

This, and subsequent annals, seem likely to be contemporary records.

AT 694 'Donald, Owen's son, king of Ail Cluaithe [*rex Aio Chluaithe*] died

For general comments on AT, see Hughes 1972.

AT 717 'Conflict between Dalriata and the Britons at the stone that is called Minuire; and the Britons were defeated'.

Skene, *Celtic Scotland*, I, 273, suggests Clach nam Breatann in Glenfalloch; but Anderson, *ESSH*, 217 disagrees on the dubious ground that the stone 'should have been on the border of Argyll'.

731 HE I 1 After describing the western arm of the sea, i.e. the Firth of Clyde, Bede continues 'where there is up to the present a strongly defended political centre of the Britons which is called Alcluith [*ubi est civitas Brettonum munitissima usque hodie, quae vocatur Alcluith*].

HE I 12. 'above the western estuary, that is on its right bank, is the town Alcluith [*habet urbem Alcluith*], which means Clyde Rock [*Petra Cluit*] in their language, because it is beside the river of that name...the [Antonine] Wall ends near *urbem Alcluith*.

Whatever the source of Bede's information, it cannot have been personal observation.

AT 752 Teudubr, Beli's son, king of Aio Cluaide, died.

HR 756 King Edbert, in the 18th year of his reign, and Angus, king of the Picts, led an army to the town of Dumbarton [*ad urbem Alcuith*]. And hence the Britons accepted terms there on the 1st day of August. But on the 10th day of the same month perished almost the whole army'.

Whitelock (1955, 1979) includes this among those entries in the *Historia Regum* attributed to Symeon of Durham 'which seem to be drawn from earlier Northumbrian annals'. This judgement has been generally accepted; but recently Dumville (1987) has set out some of the problems of using this material as a historical source.

AJ 779 = 780 'The burning of Ail Cluaithe on the 1st of January'.

It is not clear whether this was an accidental or a hostile burning; but given the general pattern of the Annals, the latter would be more likely were it not for the particular time of year.

AU 869 = 870 'Siege of Ail Cluaithe by the Norsemen: Anlaib (Olaf) and Imar (Ivar), two kings of the Norsemen, besieged that citadel [*arcom illus*], and destroyed the citadel at the end of four months, and plundered it'.

Duald Mac-Firbis has a more colourfully detailed account, quoted in ESSH, 302.

AC [870] 'The citadel of Dunbarton [*arx Alt Clut*] was destroyed by the Norsemen [*a gentilibus*]

Given the idiosyncratic chronology of AC, the date has to be restored from AU; but the event itself would obviously have been of interest to the Britons of Wales.

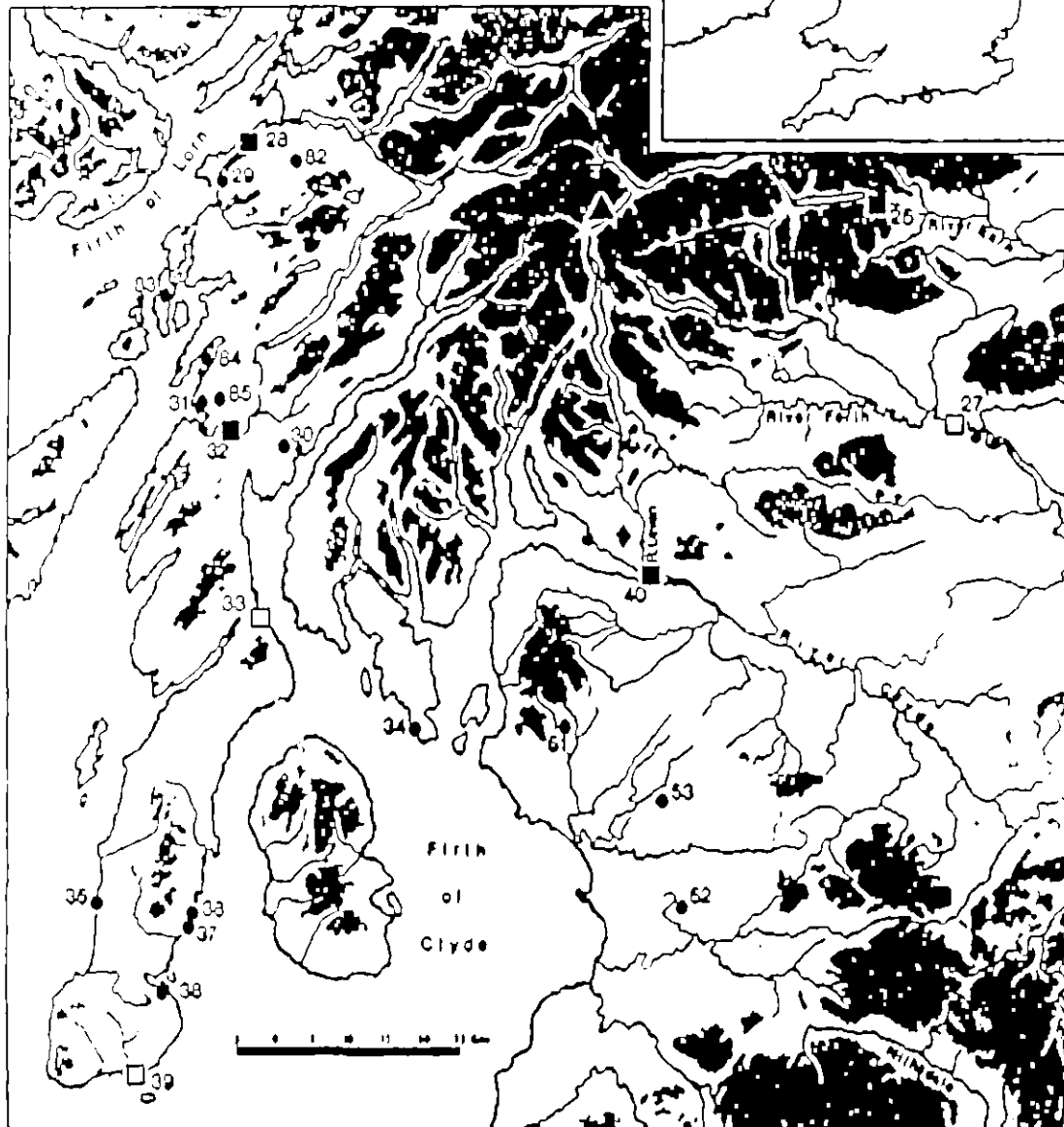
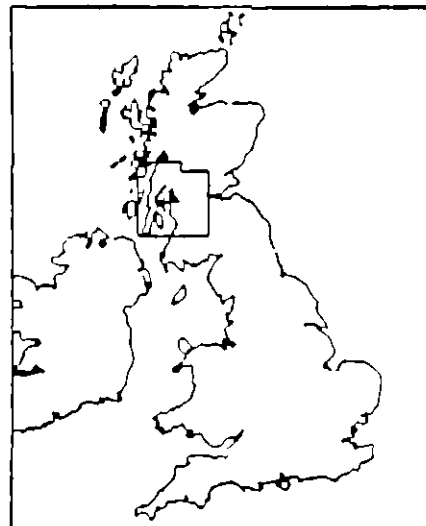
AU 870 = 871 'Anlaib (Olaf) and Imar (Ivar) returned to Dublin from Scotland with 200 ships and a very great booty of men of the Angles and Britons and Picts was led away with them into captivity in Ireland'.

There is no reason to doubt the essential truth of the annals for 870 and 871, which together mark the end of the historical records of Clyde Rock in the Early Historic period, that is before the founding of the High Medieval masonry castle by Alexander II in or before AD 1222 (MacPhail 1979, 9).

The general picture which emerges from these references is firstly that it was the striking topographical configuration of Clyde Rock which had given the site its name, whether in Welsh, Irish or Latin. Secondly, it was certainly the seat of kings by the second half of the seventh century; probably so by the late sixth century; and perhaps already a royal site by Patrick's day in the mid-fifth century, if Muirchu's attribution is accepted. Bede knew of it as a strongly defended place, whether by nature, art, or a combination of the two; and also as *civitas*, *urbs*, whatever those terms might mean. It was presumably both the military strength and the strategic location of the Rock on the Clyde waterway which attracted the Dublin Vikings, Anlaib and Imar, to besiege it in 870; and its destruction opened up northern Britain to a great slave-raid among the Angles, the Britons and the Picts.

CLYDE ROCK, DUMBARTON  
SITE LOCATION AND REGIONAL SETTING

- |       |       |
|-------|-------|
| 1 - ■ | 4 - ▲ |
| 2 - □ | 5 - ◆ |
| 3 - ● | 6 - ⬢ |



ILLUS 20 Map: Clyde Rock, Dumbarton, site location and regional setting. Key: 1 & 2, certain and possible historically-referenced enclosed places; no 40 is Clyde Rock. 3, archaeologically-dated enclosed places; numbers refer to the gazetteer, Appendix 1. 4, Clach nan Breatann. 5, Carman. 6, land over 300 m OD

## CLYDE ROCK AND ITS SETTING (illus 20)

Clyde Rock rises precipitously from the north (true right) bank of the river Clyde to a height of 74 m (240 ft) above Ordnance Datum, in the form of twin summits separated by a deep cleft. It is in fact a volcanic plug, comparable with other conical hills carved from volcanic vents around the Campsie Fells to the north-east (Whittow, 1977, 91); but it is visually by far the most striking of them. Its crags make it naturally defensible, and its location at the confluence of two navigable rivers, the Clyde and the Leven, gave it the strategic importance which is revealed in the historical references.

Upstream, the Clyde was barred to ocean-going vessels in recent centuries by a rock barrier at Dumbuck, some two km above the Rock, until the cutting of an artificial channel made it possible to sail to the heart of Glasgow. In earlier centuries, however, the Dumbuck barrier could probably have been crossed at high tide by vessels of shallow draught, and in any case would have involved no more than a short portage. This would have given access to wide-spreading fertile lowland either side of the river; and ultimately to the moorland grazing of Upper Clydesdale.

The Leven gave access to other arable lowlands between the Campsie and Kilpatrick Fells and the Southern Highlands. More importantly, it issued from Loch Lomond, an important waterway in itself, which also led, by short portages, to rivers flowing east into the upper Forth basin, and ultimately to the North Sea. These were probably among the routes used in the great Viking slave raid of AD 871. Certainly a Viking connection with Loch Lomond is shown by a warrior burial at Boidan, by the lower bridge of Fruin (NGR NS 3585, Grieg 1940, 15). Beyond the head of Loch Lomond, a narrowing valley skirts *Clach nam Breatann*, Stone of the Britons, a dramatic natural rock formation which is traditionally regarded as marking the northern limit of Strathclyde.

Below Clyde Rock, the river widens into an estuary, with sea-lochs such as Long and Fyne penetrating deeply into the Highlands, and offering communications, a rich sea-harvest, and cultivable areas along their shores. Often these were mere pockets, but in Ayrshire and parts of Galloway they were both extensive and rich (Bown, Shipley & Bibby 1962). And beyond the Mulls of Galloway and Kintyre lay not only the Irish Sea,



with Viking raiding and trading ports at Dublin, Waterford and Wexford, but ultimately the Atlantic facade of Europe.

Turning now to the archaeological background to Clyde Rock: remotely, this is to be seen in the brief Roman intervention represented along the right bank of the Clyde by the Antonine Wall. Scraps of Roman pottery and occasional trinkets have also been found on sites of native character, including duns and crannogs (Robertson 1970), but their chronological significance is debatable. What is certain is that some of these enclosed places of potentates (Alcock, Elizabeth A 1988) were occupied at the same time as Early Historic Clyde Rock (Alcock & Alcock 1987, 130-2). These would include at least eight duns in Argyll and one in Ayrshire, as well as crannogs in both Argyll and Ayrshire. It should be stressed that the chronology of individual sites is known from excavation and not from site-typology; and there may be many more small forts of early medieval date which have been omitted for lack of excavation. Consequently, the map (illus 20) cannot be used to draw general inferences about the overall distribution of contemporary sites, nor for spatial analysis.

The map also shows the certain or probable location of six other sites of the period which are mentioned in written sources, and which were probably of high status, comparable with Clyde Rock itself. Of the chief fortified places of Dal Riata, only Dunollie is not accessible from the Firth of Clyde. Dunadd lies six km over low-lying ground from Loch Gilp, a bay off Loch Fyne; while Tarbert and Dunaverty (*Aberte*), if they are correctly identified, are beside the shore of Loch Fyne. To the east, Dundurn may be approached by way of Loch Lomond, and then a series of portages and mountain passes; and Bede's *urbs Giudi* (if it is correctly identified with Stirling), is accessible from Loch Lomond by a short portage and then by the upper reaches of the river Forth.

One other fort should be mentioned here, despite the fact that it is not historically-referenced, because of its size and proximity to Clyde Rock: namely, Carman. This overlooks the Rock from a height of about 230 m and at distance of six km. Carman has two elements: an inner oval wall, 60 m on its long axis, which crowns the summit of an isolated hillock; and an outer wall, doubled on the east (the side of gentlest access), with an overall diameter of 180 m. It thus belongs to the class of 'citadel-plus-outwork' (*Hauptburg/Vorburg*) sites, a sub-class of hierarchically-

organised forts, which have been discussed in relation to Dundurn and other 'nuclear' forts (Alcock, Alcock & Driscoll 1989). Wherever there is evidence for dating them, such fortifications appear to belong to the early medieval period rather than to the pre-Roman Iron Age. This immediately makes it necessary to discuss the possible relationship between Carman and Clyde Rock.

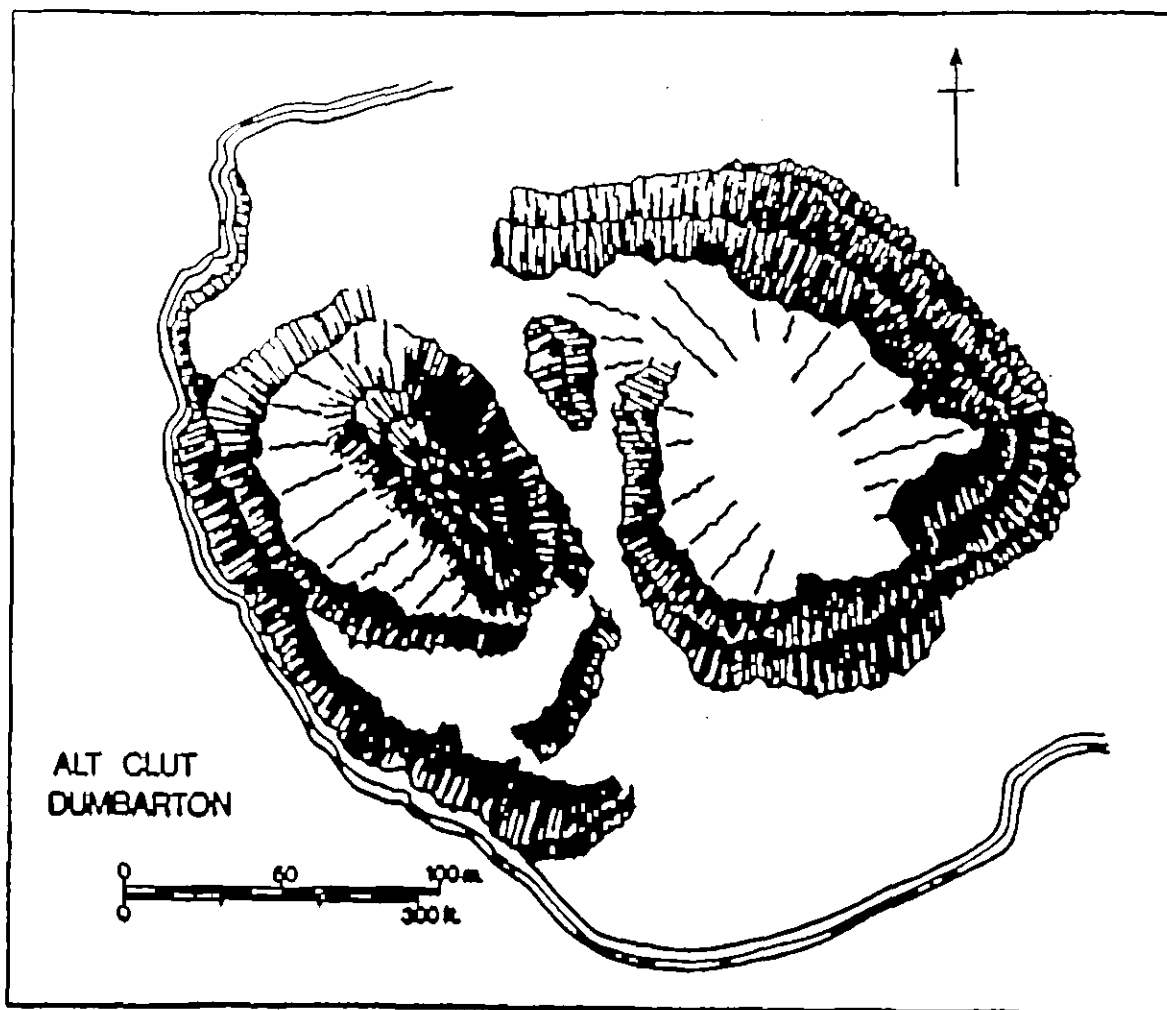
There is another reason for doing this. Whatever the date of Carman, within western Scotland it is an extremely large fort. Among the royal strongholds of Dal Riata, Dunollie in its entirety could be fitted inside the inner enclosure of Carman; and the major Dal Riata fort of Dunadd occupies about one-quarter of the overall area of Carman. This must surely imply a major concentration of military and political power at Carman. It is difficult to see how this could have co-existed with the royal presence at Clyde Rock. A possible explanation might be that Carman was the immediate precursor of Clyde Rock; that it shows the beginnings of a concentration of political and military power realised by means of a hierarchically-organised fortification; but that its position, some four km inland, became inconvenient as kings came to require ready sea-access, not least in order to import the luxury goods which helped to reinforce their status as bestowers of hospitality. In the absence of excavation at Carman, such explanations remain hypothetical; but the relationship of Carman to Clyde Rock cannot be ignored.

We may now return to Clyde Rock itself (illus 21). Viewed from sea level, it gives an immediate impression of craggy inaccessibility, even impregnability. While it is not at all difficult to see how, as a topographical feature, it could have resisted the Hiberno-Norse siege for three months, it is hard to picture it as a seat even of barbarian kings, still less as a *civitas*, the term by which Bede described it.

Closer inspection, stripping away the overlay of High Medieval and later fortifications, modifies these first impressions. It remains true that the higher, western summit is too pointed for occupation as anything more than a look-out; but the eastern summit appears as a more level area some 65 by 40m in extent. Excavation in Cuttings B and D revealed, however, that originally this had been more broken and rocky than it now appears; but it would still have presented an area suitable for occupation. The cleft between the twin peaks presented an access route,

albeit rugged, to the lower summit, especially from the north. Moreover, the eastern peak, and the lowest slopes of the western one, are far from uniformly precipitous, especially on the Clyde-ward side. The slope is broken by a number of more or less level terraces, of varied size, capable of being improved for human occupation. In making this observation originally, we had in mind the terraces on the peripheral slopes at Tintagel. These certainly accommodated buildings, formerly regarded as monastic cells, but now identified as secular dwellings within a great stronghold (Radford 1935a; 1935b, Thomas 1986). Finally, at the foot of the crags, but above high water mark, there are extensive level areas beside both the Clyde and the Leven. What is not certain is how far these are the result of recent build-up, whether natural or artificial.

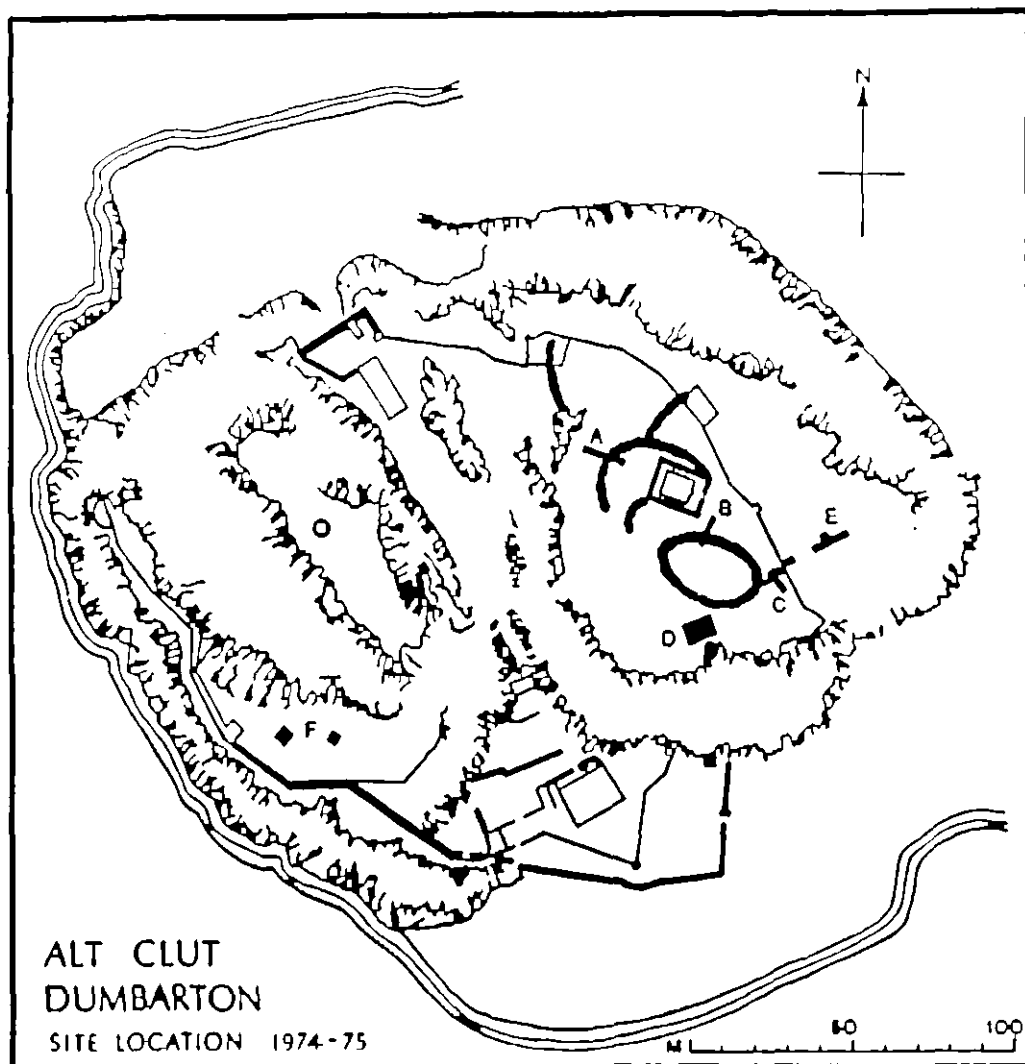
It was the recognition that the level summit of the eastern peak was very suitable for a citadel, with subordinate occupation on the lower terraces, which lead to the placing of Clyde Rock among the broad class of hierarchically organised sites, among which nuclear forts are a major subclass (Alcock, Alcock & Driscoll 1989). The belief that Clyde Rock was such a nuclear fort has, indeed, a long history. Following a hint from Christison that 'Dunadd may not inaptly be compared to Dumbarton Rock'



ILLUS 21 Alt Clut, Clyde Rock: a subjective presentation of the topography

Stevenson wrote in his seminal paper (1949, 196) 'The Britons who chose the Rock...clearly shared the remarkable preference for an isolated and craggy hill shown at our other sites [i.e. Dalmahoy, Dundurn, Dunadd, Ruberslaw], and to which the nuclear pattern of fortification was above all adapted'.

Between 1949 and 1973 there appears to have been no attempt to follow up Stevenson's comments on the ground, though there was a vague oral tradition that traces of ramparts appropriate to a nuclear fort could still be seen within Dumbarton Castle. When we first visited the site in 1973, it was immediately obvious that, on the eastern peak, there were pronounced scarps which could readily be interpreted as the collapsed and eroded ramparts of a citadel with looping outer lower enclosures: the essential nuclear fort plan (illus 22). It was also evident that this interpretation could be readily tested by an economical excavation. The scarps were therefore surveyed, with assistance from Sylvia Leek (Stevenson), as a basis for the first phase of the excavations which are described below.



ILLUS 22 Alt Clut, Clyde Rock: plan showing the supposed nuclear fort and the location of excavation cuttings A to F. (Base plan after MacIvor 1958)

It was no part of the overall campaign of excavations on Early Historic fortifications to examine the High Medieval and later fortifications which overlay some of them; most conspicuously so in the case of Clyde Rock. Nothing is said here, therefore, about the masonry fortifications and the buildings within them, though it must be said that they had a considerable, and wholly deleterious, effect on the early remains. A well researched and documented account of Dumbarton Castle may be found in MacPhail 1979, and a briefer account in MacIvor 1958; impressions of this post-1986 regrettably lack a site plan.

#### THE EXCAVATION (illus 22)

In conformity with the other excavation reports in this series, only the barest account is given of structures, features and finds which are not relevant to Clyde Rock in the Early Historic period, taken as being from the fifth to the ninth centuries AD. For the Early Historic period, the excavations are treated as follows. The evidence for the supposed nuclear fort, tested in Cuttings A, B and C, is first discussed in detail. Then the evidence for a rubble and timber defence work on the eastern spur in Cutting E is likewise examined in detail. Thereafter, Cuttings D and F, both lacking stratified remains of Early Historic date, are considered in a more summary manner. The detailed site records have, however, been deposited in the site archive.

#### The supposed nuclear fort: Cuttings A, B & C

The preliminary survey of the eastern summit revealed a number of gentle but definite scarps between 1.5 and 3.0 metres in height around and concentric with the summit boss itself. Despite their gentle angle, these were suggestive of collapsed and eroded rampart faces, with subsequent infilling to the rear. This is a phenomenon well known to the excavators of earthwork and rubble defences. A good example can be seen in the early medieval defences of Dinas Powys, where the level interior of the site concealed, on its eastern side, a rampart which was still preserved to a

height of two metres, and which was indicated by a gentle external scarp (Alcock 1987, fig. 1.5).

Using such indications, it seemed reasonable to predict, at Clyde Rock, the presence of an oval citadel, about 30 m on its longer axis, on the summit of Clyde Rock itself: this was tested in Cutting B. To the NE, the apparent citadel was linked to the eastern crags by a short length of bank examined in Cutting C. To the NW, the approach from the central cleft of the Rock was covered by no fewer than four ramparts, two of which appeared to link up with crags and outcrops in a manner wholly characteristic of nuclear forts. The most prominent of these was tested in Cutting A.

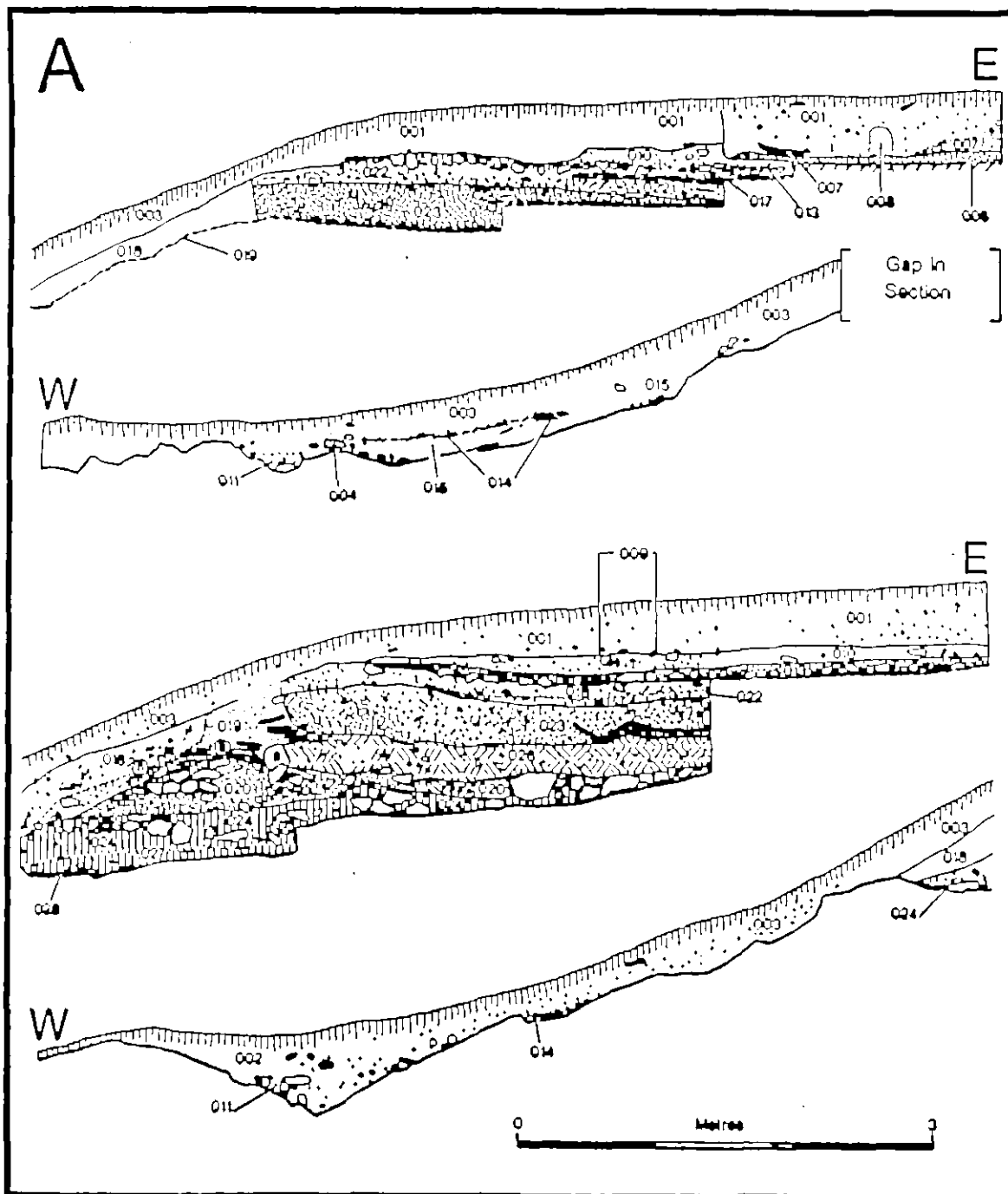
To summarise the results briefly. In Cutting B, no rampart was found around the supposed citadel; the levelled area consisted of a deep deposit of ash, cinders and soil, certainly deposited later than a coin of AD 1588, and itself containing coins of AD 1632-9. The NE bank, in Cutting C, was the product of a dry stone wall which re-used red sandstone blocks and overlay masons' chippings from the medieval and later castle. The scarp in Cutting A sealed pottery of the 13th century or later. In short, wherever it was tested, the hypothetical nuclear fort proved to be non-existent.

These results will now be described cutting by cutting. Each account is supported by a list of features and finds, derived from the site records with a minimum of editing.

#### Cutting A (illus 23 -26)

Cutting A was laid out at 2.0 m wide and 14.0 m long, to examine a scarp and possible ditch NW of the supposed citadel. Because of the depth and complexity of the features, it was not excavated to bedrock throughout its whole length.

The most promising feature in this cutting as it was excavated was a turf stack, 019, overlying a loose pack of stones, 020, which appeared to have been largely derived from a rock-cut ditch down the slope, 011. It seemed reasonable to interpret these features as a turf-stack rampart or revetment to a rampart, laid on a raft of stones; and further to see them as a crude, and therefore late, imitation of the Antonine Wall itself.



ILLUS 23 Cutting A: sections

This interpretation appeared to be strengthened by the recovery of a very weathered sherd of Samian pottery (cat no 29) from among the stones.

This interpretation did not stand up, however, because the stones also included some sandstone and slate, presumably derived from the masonry castle. Moreover, in addition to the Samian, a small sherd of Saintonge ware, of the late-13th or 14th century, was also recognised as coming from 020. Finally, lying on the bedrock at the base of the section, 028, was found a coarsely gritted grey body sherd, which was at first considered to be E-ware of the 7th - 8th cent; but see catalogue entry no 53. More importantly, the same layer yielded three sherds with green or olive green glaze of the 13th cent or later.

The most likely explanation for the turf stack, 019, is that it revetted a mound of stiffish clay with much charcoal, 023 and 026. Lying in the junction of 026 and 023 was a very decayed timber beam or pole of about 100 mm scantling, 025. Where the beam decayed away completely, its line was continued by a row of iron bolts. Within the limits of the excavation, it was impossible to determine the purpose of these timber and iron features, but it is possible that they come from a flag-pole seen in one of Slezer's views of the Castle, drawn between 1678 and 1693 (*Theatrum Scotiae*, 1693; reproduced accessibly in MacPhail 1979, pl 11; see also pl 14 for Slezer's plan of 1696). At a higher level, the stump of a wooden pole of about 180 mm scantling, 008, set in a concrete raft, 006, may mark a later version of the same flag-staff.

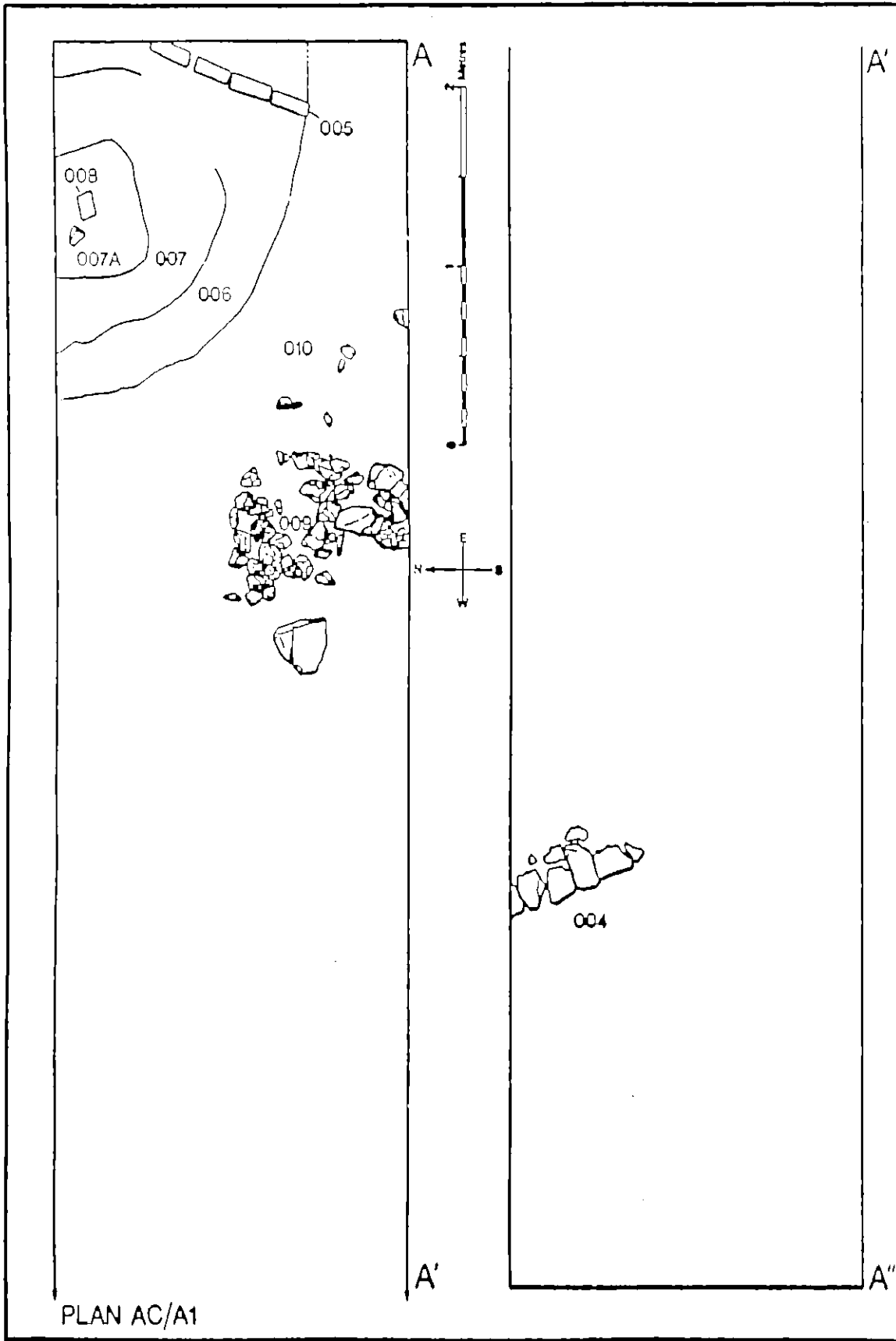
#### LIST OF FEATURES AND FINDS IN CUTTING AC/A

##### A 001 TOP SOIL

Powdery dark grey soil, with small stones and coal, little plaster, bricks, roofing slates.

Slag NR  
Clay Pipes (stems NR)  
Animal bones NR  
Stone mould for musket balls.  
Glass frags x 4  
Coins, cat nos 10, 19, 20





ILLUS 24 Cutting A: Plan AC/A1, upper levels, 004 - 010

A 002 GREY-BROWN

Powdery grey-brown soil on the bedrock at the west end of the trench.

Glass fragment  
Imported stone

A 003 SLOPE

Grey-brown topsoil on the slope.

Coal, slate  
Bone

A 004 SKEW WALL

Six stones in a rough line facing W.

A 005 BRICK LINE

Four bricks in a line at the base of 001. The bricks are  $9\frac{1}{2} \times 4\frac{1}{2} \times 3\frac{1}{2}$  ins, 235 x 108 x 89 mm and are stamped CADDEN. They seem to have been re-used since they are mortared, and they lie over 006. ? one side of drain.

A 006 BLACK ARC

Ash, and cinder, some rubble;  
part of the fill of the pit for 008.

Glass, modern

A 007 GRAVEL QUADRANT

A superficial spread of small angular gravel around 008, WOOD STUMP, at base of 001. The plan division of 007/007A does not exist.

A 008 WOOD STUMP

A 009 STONE HEAP

Loose array of angular stones, some

slabby. Against the S section this had the plausible look of a wall, and the whole could be the corner of a building, but the return is very shaky.

A 010 FOXY BROWN

Very soft greyish soil with patches of brown ash, charcoal, coal/cinder. Overlain by 009 and 005, and cut by pit for 008. Fairly level top.

Lead frag, 3 raised dots on 1 surface

A 011 DITCH RUBBLE

West of 004, and rather below its level, on to bedrock or 012 ORANGE SILT, was a dark humus soil and rubble, i.e. angular stones.

Glass frag  
Imported stone

A 012 ORANGE SILT

In deepest hollow of ditch, under 011 was an orange sandy silt.

A 013 COBBLES

A uniform layer of stones, 1 stone deep, slight longitudinal subsidence. Almost entirely rock of hill, sharp, unworn. Rare sandstone, brick, 2½ in (57 mm) Patches of yellow coarse sand Much charcoal on surface, but not burnt in situ. Runs under concrete raft 008. Cobbles are more packed to the east. Rested on a slightly clayey matrix.

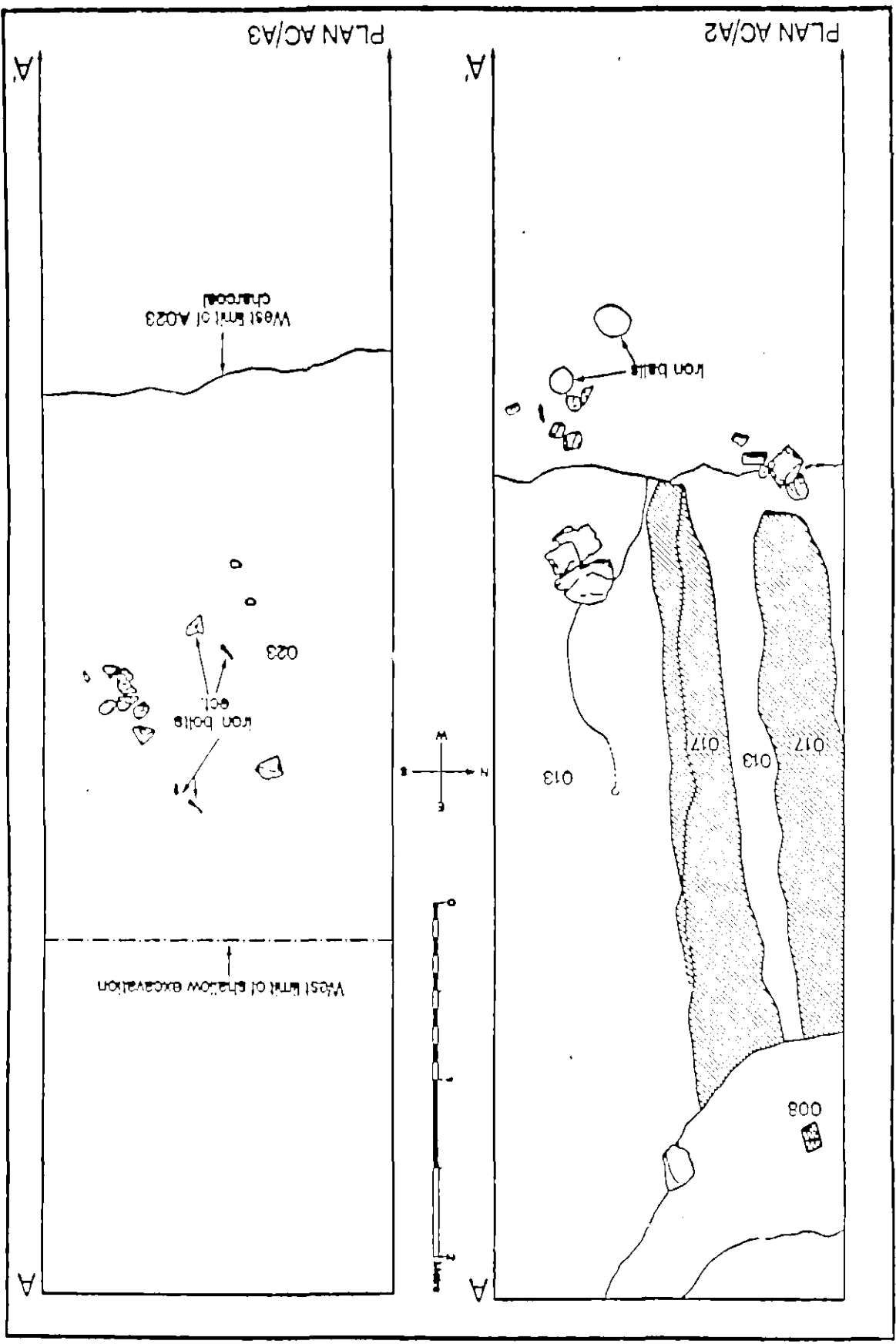
Iron fragment  
Shale

A 014 GRAVEL SPREAD

Thin spread of angular stone chips,

Brick, slate, slag

ILLUS 25 CUTTING A: PLAN AC/A2, LEVELS 008, 013, 017, 017, 017; PLAN AC/A3, LEVEL 023



both basalt and sandstone (?masons' chips) parallel to 004 SKEW WALL.  
A path ?

A 015 DAMP SOIL  
Secondary silt of ditch. Humus soil, very rare small stones.

A 016 SUB-COBBLER  
Fawn soil, slightly clayey. Flecks of coal and charcoal  
Lies under A 013, and overlies A 017, TILE ROWS.  
Fragment iron musket ball

A 017 TILE ROWS  
Two parallel rows of flat-laid slates about 4-5 laid one on top of another, with fairly regular edges. The tiles are actually roofing slates, broad-hole, normally but not entirely narrow slates, 11 x 5in (28 x 13cm), but some are broad and short 7 x 10in (18 x 25 cm). Had they been for sill-beams ?  
Purple slate  
Whetstone, broken  
Iron musket ball  
Frag fine bronze tubing  
Gun-flint

A 018 STREAKY BROWN  
Below the humus on the slope, above the level of the topmost rock step. A featureless grey-brown soil, perhaps hillwash. Some angular rock of hill. Little coal/charcoal.  
Frag shale, criss-cross incision  
Slate

A 019 CLAY LUMPS  
Beneath 018, and above 020, a layer of flattish lumps of pale clay, separated by black streaks - probably a turf stack. Very little slate & sandstone.  
Little bone MR

A 020 SAMIAN STONES

Rather loose pack of angular medium and small stones, principally, if not entirely hill-rock, with very fine pebbles which look like aggregate. Rare sandstone & slate. Overlain by 019, CLAY LUMPS, overlies 024, BLACK STONES.

Samian bodysherd,  
Drag 37, cat no  
29  
Sherd Saintonge ware  
Iron fragment  
Imported stone

A 021 SANDSTONE PACK

In hollow or scoop in bedrock was sandstone block and other hill-rock blocks. Perhaps a levelling fill rather than collapsed packers.

A 022 STONY LAYER

Brown to orange soil with some gravel, including hill-rock, red sandstone and slate, under 017. Dipping from N to S, ie higher under actual 017 TILES. Iron bolts rose through this layer.

Much bone, only teeth retained  
Bolt fragments x 2  
Iron fragments x 2

A 023 CHARCOAL

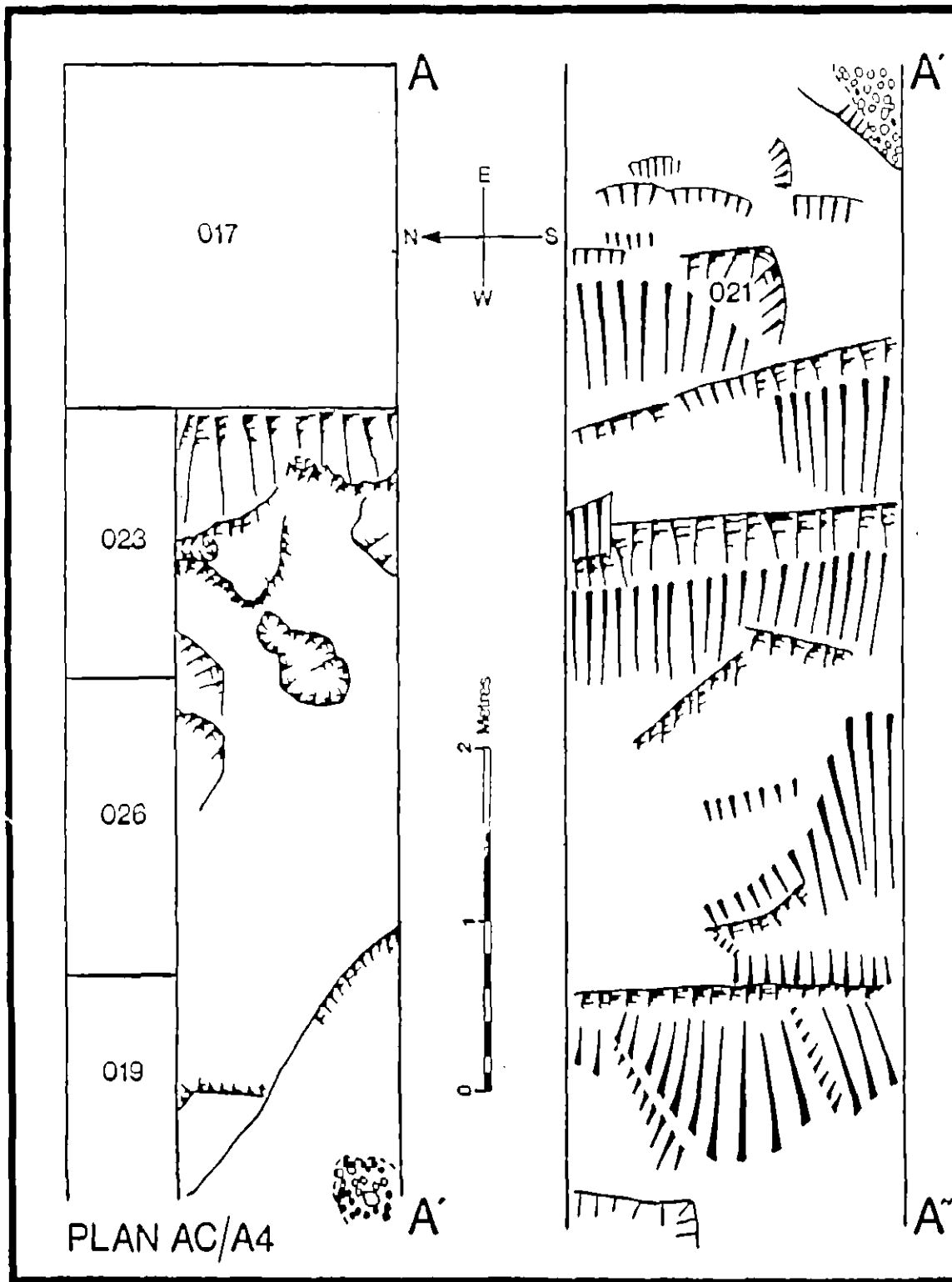
Under 022 on level ground, was a deep layer, with much charcoal etc. Lens of clean clay appears to be interleaved. Beneath this lens was 025 BEAM.

Coal, charcoal, shale  
Cinder, slate  
Bone, NR  
Imported stone

A 024 BLACK STONES

Angular hill-rock stones, exactly like 020, but in an earthy, not a pebbly matrix. Lying on bedrock through middle part of level ground. The matrix is more sandy than 026, but very humus-like - a very sandy turf?

Water-worn granite pebble used as a pounder.  
Imported stone



ILLUS 26 Cutting A: Plan AC/A4, principally bedrock

A 025 BEAM

Shreds of timber, forming a line  
c. 100 mm wide, and 1.3 m long in the  
trench under the clay lens in 023.  
Beyond the lens, under the  
charcoal of 023, the wood disappears,  
but its line is continued by a row of  
bolts. Had clay helped to preserve wood ?  
Uncertain whether it had been  
charred or preserved by damp.

A 026 DIRTY GREY

A stiff clayish soil, marginally                    Imported stone  
stiffer to rear. Very few small  
hill-rock stones. 'Dirty' refers to  
colour, not content. Overlain directly  
by clay or charcoal of 023. L' s behind  
the front turf stack, 019. Overlies 020,  
but separated from it by thin  
charcoal spread.

A 027 BUTTER BALLS

Separated from 024 BLACK STONES by a                    Bone, mostly indeter-  
lens of buttery clay. Black humus soil                    minate  
with lumps of decayed brown sandstone.                    Imported stone  
Lies either on solid or on 028, in front  
of a marked natural scarp in the bedrock.

A 028 BEDROCK RUBBLE

Pounded into some, but not all                    Quartz pebbles  
depressions in the solid rock                    Rare bone  
(others have hill-rock chips                    Green/olive glazed  
pounded in or are clean). Rounded                    sherds x 3  
pebbles of quartz and other materials                    ? E-ware sherd  
up to 80 mm across,                    cat no 53



Imported stone

Iron fragment

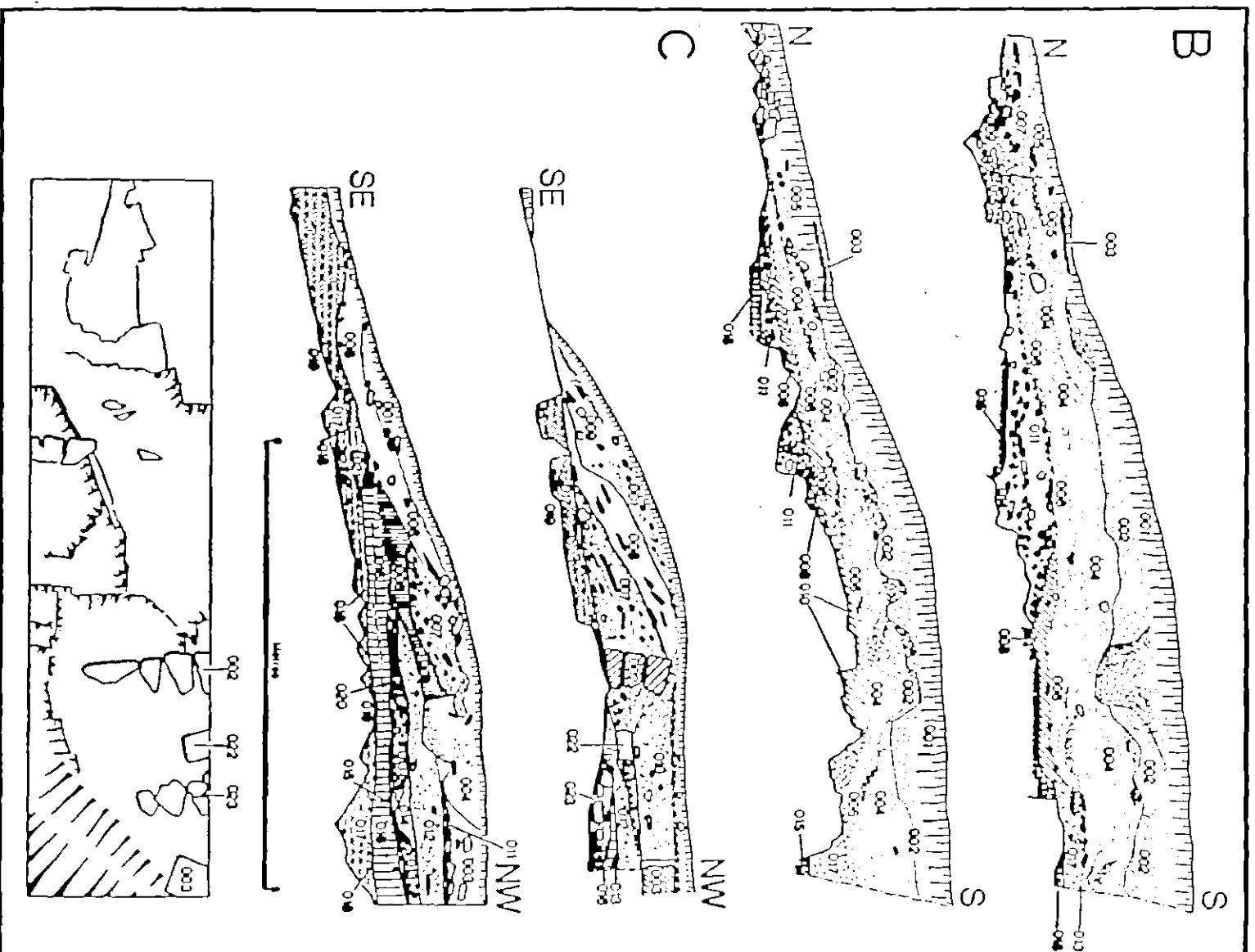
Cutting B (illus 27)

The summit of The Beak appears today as a flat grassy oval, some 30 m over its longer axis. On the S and SW this runs out into rocky ground, which ultimately plunges in crags down to the base of the Rock or into the central cleft. From W through N to SE, however, the edge of the level ground is formed by a well marked scarp up to 2.0 m in height. Given its summital location, the whole configuration suggested a decayed oval rampart, of dun-like form and size. Inevitably it recalled the citadel of the classic nuclear fort of Dunadd, with its well established Early Historic date (Christison 1905; Stevenson 1949, RCAHMS 1988, item 248). Before excavation, indeed, this appeared as the most authentic feature of the supposed nuclear fort on Clyde Rock.

Cutting B was therefore laid out as a trench 2.0 m wide and 10.0 m long at a point where the scarp was high enough to promise a reasonable depth of stratification, without outrunning the available labour resources. Except for certain deep pockets in the basalt bedrock, filled with natural sandy clay (e.g. 015), it was excavated throughout down to the solid rock.

In the event, it was discovered that there was no rampart or other defensive feature in Cutting B; indeed, the apparent scarp seems to have been nothing more than the gentle tailing away of a deposit of ashy soil, brought in to level off the rocky summit area. Moreover, the entire deposit overlay a billion hardhead of James VI (cat no 8), issued in November 1588, but, in Dr Donal Bateson's view, lost after AD 1600: this was found in feature 008. Furthermore, the ashy soil yielded three copper 'Stirling' turners (twopences) of Charles I issued 1632-1639 and probably lost in the latter part of the decade AD 1632-1642. Admittedly one of these (cat no 11) was found in the topsoil, 001, but the other two were more securely stratified in features 004 (cat no 9) and 005 (cat no 12)

It must be admitted, however, that the stratification of Cutting B was highly disturbed. Though it is reasonably certain that the original deposit had been of ashy soil with a considerable admixture of cinders and even coal, this had been turned over throughout the trench by the



ILLUS 27 Above, Cutting B; sections; below, Cutting C: sections, and plan of bedrock & lower levels

2 : B12



11, 21

Glass rim, cat no 63

Glass frags x 8

Flint flake

B 002 SOFT SOIL

On the level below 001 TOP SOIL. Very soft dark powdery soil with reddish patches, some stones, espec. small gravel. The top of this was probably taken out with 001 TOP SOIL.

Roofing slates

Pipes (stems NR)

Cinder

Bones NR

Saintonge sherd

Glass frags x 8

B 003 PEBBLES

A strip of small round pebbles at a marked levelling of the slope; perhaps a path round magazine.

Glass frag

Some pot

Pipes

B 004 REDDISH

Continues 002 SOFT SOIL down, but is coarser with much coal and cinder, red ashy soil, local concentrations of slate and glass. Slates especially of narrow, large-holed variety.

Basalt whetstone

or polisher

Decorated glass body

sherd cat no 64

Glass frags x 2

Coin cat no 9

Medieval sherds x 7

Bellarmino face-mask

Incised slate

B 005 BLACK

Below 003 PEBBLES, but extending further up & down slope, is a black ash soil with lumps of concreted brick rubble, cement/plaster, brick,

Rare sandstone

Bones NR

Pipes

slates - some fine hole, asbestos.

Coin cat no 12  
Glass frags x 6

B 006 BOTTOM REDDISH

Material believed to come from  
bottom part of 004 REDDISH.  
Composition as 004 REDDISH.

Stoneware & medieval  
potsherds  
Much animal bone NR  
Glass frags x 3

B 007 WHITE RUBBLE

Apparently a pit in 005 BLACK:  
builders' rubble, especially sandstone,  
with much white mortar powder,  
concrete. Some stones are massive.  
? robber pit or foundation.

Glass frags x 2

B 008 MIXED SOIL

Below 004, 006. A clayey soil with  
some charcoal, traces of burning.

Bones in bad  
condition, only teeth  
retained  
Pipe stems NR  
Polishing stone  
Decorated glass body  
sherd cat no 65  
Coin cat no 8  
Whetstone

B 009 PIT

The filling of 007 continues down  
into hollow in the rock. N side  
formed by the rock, S side by cut  
in earlier levels. Damp dark clay,  
stone free, in lower filling.

Modern building  
debris e.g. metal  
guttering, concrete  
gutter, brick NR

B 010 CLEAN GREY

In places below 006 BOTTOM REDDISH

Glass fragment

and 008 MIXED SOIL was a fairly clean grey clay-soil.

B 011 LOOSE COBBLES

A layer of loose cobbles in a dark earthy matrix, lapping up on quarried bedrock on W side of the trench. Cobbles are of hill-rock and some sandstone. Very little slate, no roofing slates.

Glass bead cat no 84

Animal bones  
only teeth R  
Tubular bead of blue-black glass, & second bead  
Dolorite? whetstone  
Saintonge sherd  
Pot & slate roundels  
Reticella-decorated glass sherd cat no 85

B 012 FIRST POST

A good post-pit, cut in 015 SANDY BROWN, with some good slab packers and other smaller stones. No pipe visible. Contained much shattered bone, including burnt bone. Little cinder, mostly NR.

B 013 UPPER COBBLES

Mixed patch of cobbles, clay, larger stones at S end of trench, at higher level than 011. Larger stones cleaned up as 016 BIG BLOCKS.

Bones NR

B 014 SECOND POST

A depression in the bedrock with dark soil, no certain packers. Very dubious as a post-hole.

Frag decorative lead object  
Few pieces charcoal  
NR

B 015 SANDY BROWN

A clayey soil, orange-flecked at the surface, very homogeneous brown lower down. Clean except for probable burrows. Lies on solid rock, in variable depths, and taken to be the weathering of bedrock. Only partly excavated.

B 016 BIG BLOCKS

At upper end of trench was a compact setting of rock of hill plus two large sandstone blocks. These were at the level of 013 UPPER COBBLES.

B 017 DARK SOIL

Sticky dark brown soil on bedrock or natural clay 015 SANDY BROWN. Some charcoal/coal. The darkness may be due to burning.

Cutting C (illus 27)

Cutting C was laid out at 2.0 m wide by 8.0 m long, where a pronounced scarp sprang from the supposed citadel in a NE direction. After about 10 m it appeared to be truncated by the NE curtain wall of the masonry castle; it was assumed, however, that it had originally ended on the eastern crags of the Beak.

The occurrence of the scarp was readily explained. Immediately below the modern ground surface, and behind the break in slope, was a revetment of large blocks of sandstone, 002. These were laid dry; but adherent patches of mortar showed that they had been robbed from some earlier building of mortared masonry. This itself cannot have been earlier than the thirteenth or fourteenth century, but it is impossible to say how much later the robbing took place. The construction of the revetment, 002, is likely to be very recent indeed; though not as recent as that of the

concrete piers, 003, at the N end of the cutting, for these are probably work of the 1939-45 war.

A further chronological pointer is provided by 013, a dense pack of pinkish-white sandstone chips and dust. These are almost certainly masons' chippings from carving the mouldings and dome of the 'pepper-pot' sentinel box, a work probably of 1735, which stands some 20 m distant from Cutting C; or possibly from the construction of the new magazine of 1748 which is adjacent to the Cutting (MacIvor 1958; 1972, 8-12). At that time, the ground surface had only a slight dip from NW to SE, more or less conforming to the dip of the underlying bedrock.

It is evident, then, that the scarp examined in Cutting C is a quite modern creation, and that neither it nor the underlying sandstone revetment, 002, served any defensive purpose.

#### LIST OF FEATURES AND FINDS IN CUTTING AC/C (illus 27)

##### C 001 TOP SOIL

Throughout trench with building debris. Bones NR  
Brick, asbestos, slate, plaster, rubber  
wiring conduit, glass, coal, cinder,  
concrete guttering.

##### C 002 BIG BLOCK WALL

A revetment of blocks of sandstone up to  
660 x 260 x 280 mm, facing downhill. Some  
are toothed headers. Coursing and face  
both poor. Blocks are roughly dressed, almost  
certainly re-used dry, though this is  
confused by adherent mortar.  
005, 006, 007 lie against face.

##### C 003 CONCRETE PIERS

Two piers of brick-rubble concrete.  
Loose packing of basalt rubble between.  
To the N the general line is



continued by fairly packed rubble, with rough face to the E.

C 004 BETWEEN WALLS

In the S section this appears as Saintonge sherd  
principally mortar-powdery soil, cut  
by trench/pits for 003 CONCRETE PIERS;  
perhaps running into back of 002  
But in the N section, much disturbed by  
modern rubbish pit, and this provided  
most of the finds.

C 005 SLOPE RUBBLE

Loose rubble in front of 002 BIG BLOCK WALL. Principally hill-rock, some mortared; brick 2½ x 4½ in (57 x 114 mm) and slate. Subsequently divided into  
Animal bone NR  
Rare oyster shells  
Rare pipes NR  
Worked stone  
006, 007, 008.

C 006 TIPPED SLATES

In front of 002 BIG BLOCK WALL, loose dark soil, with many slates obviously tipped over 002. Stone frags, some mortar flecks.

C 007 MOTTLED

Below 006, brick fragments and mortar tipped over 002 BIG BLOCK WALL.  
Perhaps surplus from 003.

C 008 BLACK

Black, probably humus soil with some small rubble, running under 002 BIG BLOCK WALL, and slightly lapping up its face.  
Frag bronze binding

C 009 DRY POWDER

A dry powdery soil with some mortar and refuse.

At the end of the trench where distinction of layers is fading.

C 010 JOANNA'S MESS

Loose grey barren soil, clayish in parts under 004 BETWEEN WALLS.

C 011 GREY RUBBLE

In the NW corner of the trench was a hard packed rubble with much adherent mortar - uncertain whether robber fill, foundation, or mere junk. Carries the line of 003 down

C 012 FLECKED BROWN

Stiff pale brown soil with some small frags. of red sandstone, hill-rock, slate, charcoal. Much very fine pebble, probably aggregate. Large part of one medieval pot Much bone

C 013 PINK SAND

A dense pack of pinkish-white sandstone chips and dust, probably masons' chips levelled off to a fair surface, but with minor intrusions; some pockets of aggregate.

C 014 TRENCH IN PINK

A minor intrusion in 013 PINK SAND, extent and purpose unknown. 1 oyster shell 1 pig metacarpal NR

C 015 BROWN SAND

Under 013 PINK SAND is a brown sand

with red sandstone fragments - perhaps also masons' chippings.

C 016 EARTHY

A humus soil with few small stones hill-rock, rare sandstone, overlying 018 MORTAR STREAK. Revetted by 021.

C 017 BOTTOM EARTH

On 019 BEDROCK is a rather mixed dirty grey-brown soil with some light brown sandy flocks. Overlain by 018 MORTAR STREAK.

C 018 MORTAR STREAK

Overlying 017, and presenting the first level surface, is an intermittent but recurrent line of mortar and small stones; probably building level of 021. Only appears in N section.

C 019 BEDROCK

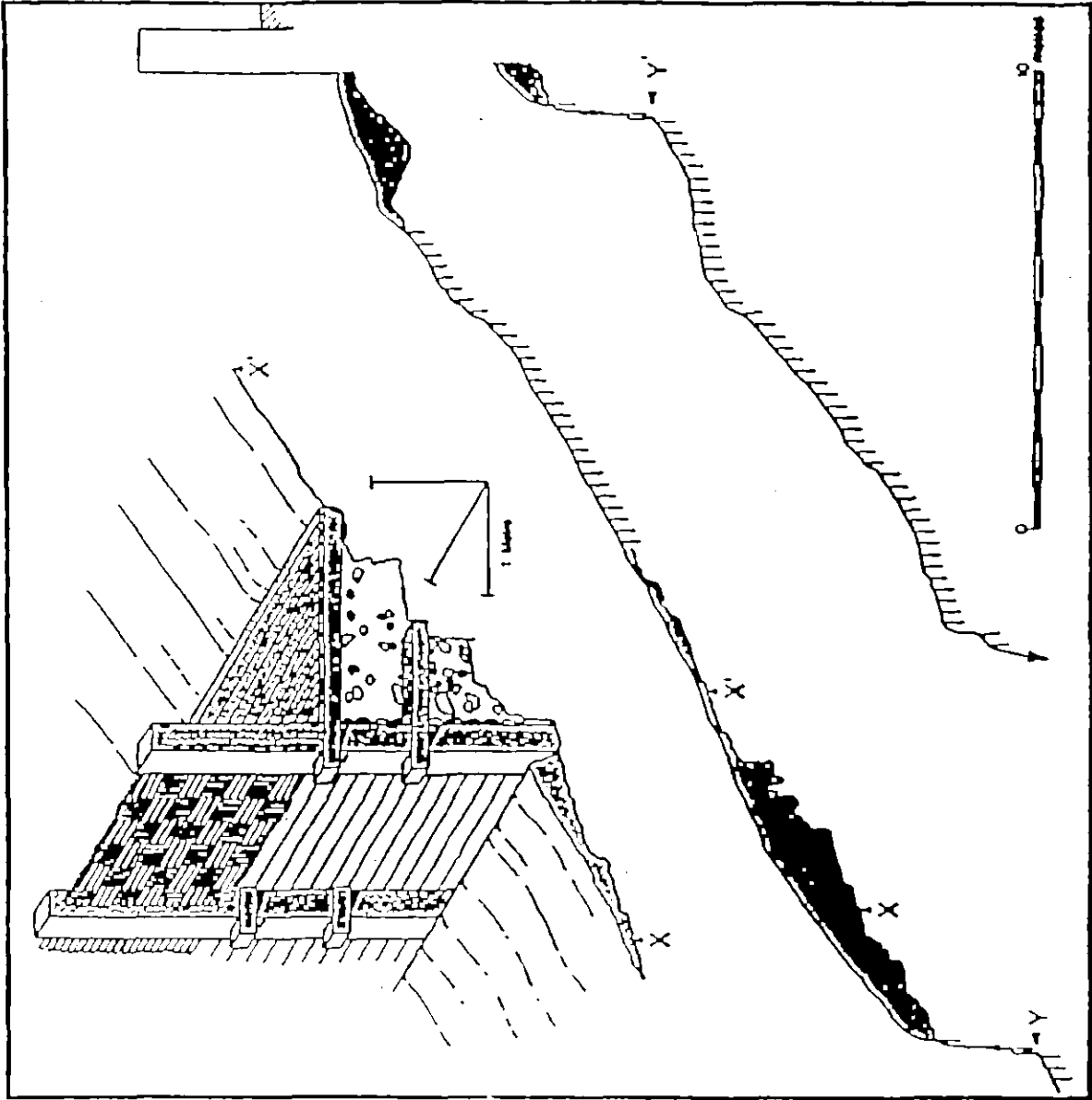
Very irregular, in part the result of quarrying; but feature in NW corner may be natural gully rather than shallow rock-cut ditch.

C 020 BURNT CLAY LENS

019 PINK SAND was cut by a lens of burnt clay and stones, including one large slab: ? a hearth.

C 021 LITTLE BLOCK WALL

A wall face of dressed red sandstone blocks with chips of hill-rock behind. Largest 290 x 180 mm. Overlain by general



ILLUS 20 Cutting E: Profile of E spur of The Beak, and reconstruction of defensive work

junk. Rests either on bedrock or on a rough foundation of rubble, which appears to cut O18 MORTAR STREAK. In any case O18 seems to be ground level for the wall. A uniface wall.

C 022 SINGLE SANDSTONE

A solitary block of red sandstone protruding from S section. Revets a layer of red sandstone chips and mortar; but function unknown.

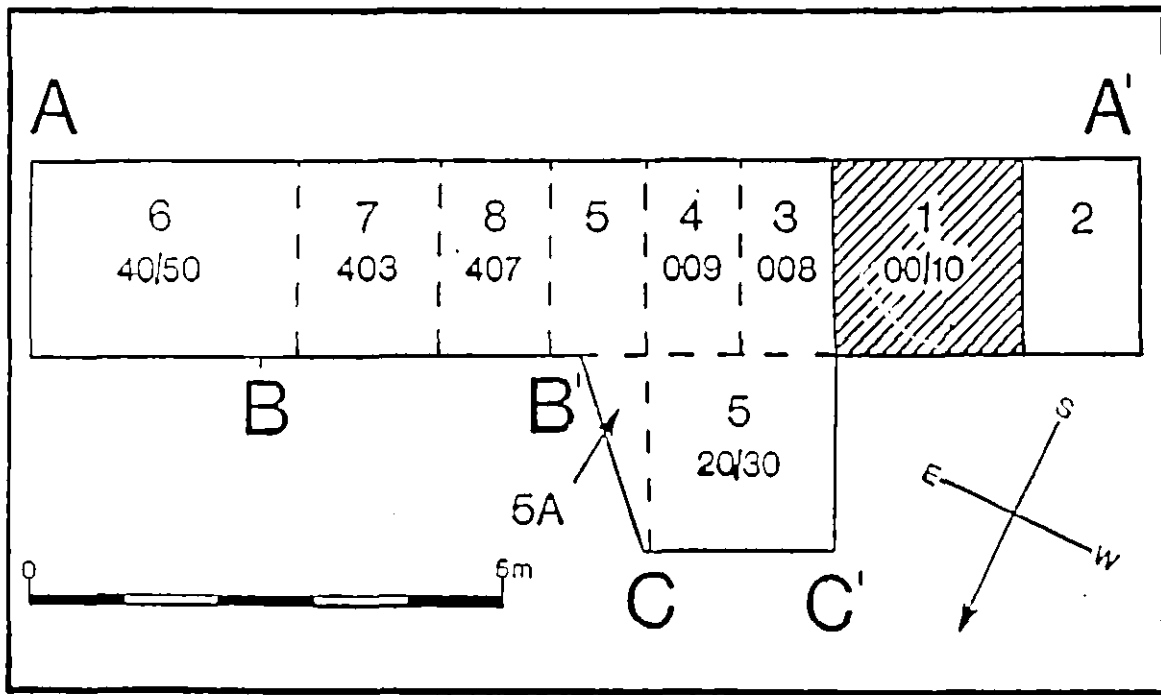
C 023 RAGGED STONES

A rough row of stones on bedrock; apparently a rough wall.

**The Defence of the Eastern Spur of the Beak: Cutting E (illus 28-31)**

Towards the end of the 1974 season of excavation it became clear that any early medieval deposits within the walls of the masonry castle must have suffered massive disturbance as a result of building and demolition activities, not least at the end of the 1939-45 war. It was clearly desirable to find, for excavating in 1975, an area suitable for occupation, but lying outside the castle walls. Given that the trace of the walls was largely carried round the edge of the steepest and most craggy slopes of Clyde Rock, it seemed unlikely that this criterion could be met. However, a somewhat adventurous reconnaissance of the eastern spur of The Beak did reveal two ledges, or at least easements, in the otherwise steep slope, which might have been suitable for human occupation. One of these was chosen for a major effort in 1975, and designated Cutting E.

Access to the proposed site of Cutting E required first the building of a scaffolding staircase over the curtain wall. Below the ledge chosen for excavation, the already steep slope dropped away in a series of vertical rock steps (illus 28). For the first few days, the diggers were anchored



ILLUS 29 Cutting E: Plan showing sequence of expansion of main excavation

to safety ropes, but these were soon found to be too restrictive, and they were therefore abandoned. A major problem was to prevent the excavated spoil sliding down slope. These practical problems, as well as the subjective feeling of hazard imparted by the slope and cliffs, are emphasised here because they form a background to the intellectual problems which arose in the excavation of Cutting E.

The basic assumption was that the easement in the slope of the spur might have been utilised for human activities, on the rather vague analogy of the terraces on the slopes around the central plateau of Tintagel, as these were interpreted at that time (Radford 1935a; 1935b; but see now Thomas 1986; Thomas & Fowler 1985). In particular, it was thought that a location on the periphery of the main area of occupation, (assumed to be located on The Beak), might have been used for metalworking, so as to keep the noisome smells and fire-hazard away from the main domestic area.

Cutting E was opened as a 2-metre square. Bedrock lay only some 200 mm below the surface, with the intervening deposits containing some green glazed pottery and also building debris. Because of the shallowness of the deposits, the original cutting was then expanded 1 metre uphill and 2 metres downhill (for the sequence of expansion, see illus 29). Slag and vitrified rock began to appear, and in places the surface of the bedrock itself was fire-reddened (illus 30, 104), lending support to the hypothesis that this might indeed be a metalworking site. Against this, however, there was a suggestion of rough stone kerbs or walling running with the contour; but nothing substantial enough to be interpreted as defensive.

A further extension both downslope, and also across the slope at right angles to the main trench (illus 29: 5; Section C-C'), then encountered burned and vitrified rock in quantity, and more particularly, many fragments of charcoal (203). These, which had evidently come from large beams, suggested that, far from excavating a metalworker's emplacement, we were in fact in the core of an earth, rubble and timber rampart which had been destroyed by fire. At this advanced stage in the excavation it became necessary to reorient our thinking from the horizontal plane along the contours, to the vertical plane up and down the slope.

A further difficulty was presented by the character of the bedrock hereabouts. Whereas throughout much of Cutting E the rock runs at a fairly

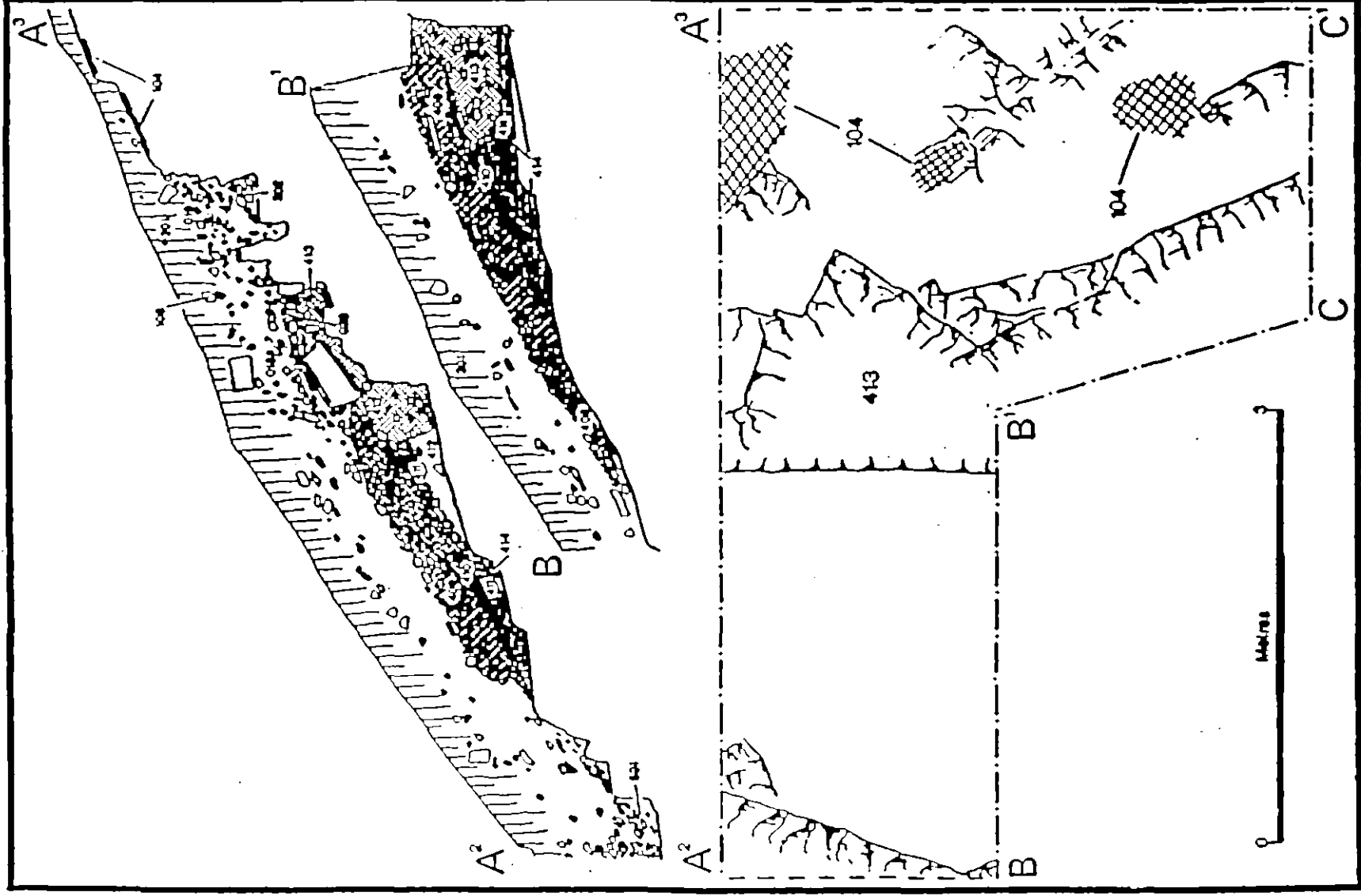
uniform slope, around the mid-point between A and A' there are pronounced steps (illus 28 & 30). The drawings do not fully represent the irregularity of the rock here. No doubt as a result of its columnar structure, large blocks had fallen away from the bedrock, leaving angular niches. Some of the individual fills recorded in the site book were no more than local accumulations in such niches. This did not help us to understand the stratigraphy during the course of the digging.

Up to this point, excavation had given us some confused evidence about the core of an apparent rampart, but nothing about its dimensions or the character of its front face. It was therefore decided to leap-frog the lower end of the trench down to a major step in the bedrock (illus 29: 6), on the grounds that the rampart could not possibly extend beyond that; and then to work up slope from that point until the section ran through continuously (illus 29: 7 & 8). It was, indeed, only the final uphill extension, linking through to the supposed rampart core, which eventually made it possible to comprehend the main elements in the stratigraphy of Cutting E.

In attempting to understand the structure of the rampart, and in essaying a reconstruction, the following observations must be taken into account. Below the natural rock step at the mid-point of Section A-A' (illus 30) are layers with much charcoal, as well as some vitrified rock and burnt bone: these are features 408 - 409; and 410 which contains the densest concentration of charcoal. These features partly overlay 413, a powdery soil with little charcoal, bone that is unburned, and unburned stones; 413 lies in a trench cut into 411 and 412, and runs along the contour line. This trench, shallow though it is, is interpreted as the bedding trench for the front revetment of an earth, rubble and timber rampart.

The most definite component of that rampart is the timber. Apart from the charcoal in layers 408, 409, 410, the main charcoal deposit is above the step in 023. This is mostly very fragmentary, suggesting considerable disturbance after the timber had been burned. As a result, the largest piece of timber that was observed was about 220 x 130 mm, and even this was so shattered that it could not be lifted in one piece. However, using the growth rings observable in the larger fragments, Dr Camilla Dickson has calculated that the timbers came from trees up to at least 200 mm in





ILLUS 30 Cutting E: plan and sections of the burned defence

2 : C13

radius; from these it would have been possible to cut beams up to 300 mm square. The timber appears to have been entirely oak.

On the more level rock above the step, and about two metres back from the downhill edge of the supposed bedding trench, 413, are fire-reddened patches of bedrock (plan, illus 30, 104), of variable area, but about 1.4 m apart (i.e. centre to centre). These mark where timber beams, burning strongly, have been in contact with the rock; and they suggest that at these points there rested the inner ends of beams which had tied back the front face of the rampart. The ends of these beams may have been open to the air to have burned so fiercely; but the occurrence of charcoal, as well as vitrified stone, in layers like 203 and 205 (Section C-C') may imply that there were other beams running through the core of earth and rubble. In the absence of iron nails, we must suppose that the timber work had been fastened with carpentry joints and tree-nails. There is no evidence of the existence or character of any breastwork, but one may surely be expected.

It is doubtful whether dry stonework formed an element in the rampart face. It is true that in Section A-A', a large block at the edge of the step appears suitably placed for such a purpose; but no other blocks were observed in similar positions, nor was there any tumble of large blocks below the step. It seems likely that this particular block was merely a chance element in the rubble of the core.

Given the character of the evidence, it would be impossible to press this attempt to reconstruct the rampart any further. The drawn reconstruction (illus 28) is deliberately vague in detail. It is however possible to suggest that the rampart was about two metres wide, and stood to a height of at least two metres without taking a probable breastwork into account. In itself, this is far from being a massive defensive work; but it must be considered in relation to its position on a slope rising at an angle of about 35° above vertical crags. As for its military significance, that arises from its location on the spur which overlooks, and indeed commands, the isthmus which links Clyde Rock to the mainland; and which, for all its steepness and cragginess, is none the less one of the easiest approaches to the summit of The Beak.

The construction of the rampart itself has three radiocarbon age-estimates calculated on the basis of charcoal samples from the core (023),

by the Palaeoecology Laboratory of The Queen's University, Belfast. These have already been discussed by Alcock (1976, 109-111); but Dr G W Pearson has kindly re-calibrated them for the present report in terms of the latest available calibration curve (Stuiver & Pearson, 1986), at 1 and 2 standard deviations, and has used the opportunity to re-calculate the error terms which had been quoted originally.

UB 2060 AC/E 023/1 AD 550 - 640 450 - 660

UB 2061 AC/E 023/2 AD 609 - 657 569 - 669

UB 2062 AC/E 023/3 AD 664 - 775 650 - 858

Dr Pearson further comments that, given the size of the original timbers as calculated by Dr Camilla Dickson, all these samples could have come from a single tree, or from trees cut down at the same time. In that case, we must consider that the rampart had been built not earlier than the mid- or later-seventh century AD. On the other hand, the difference between E 023/3 and the other two samples allows the possibility that it was derived from a tree which had been felled later. In that case, the rampart could have been built originally in the later-sixth century; and sample E 023/3 could represent a repair sometime between the mid-seventh and mid-ninth centuries. From the constructional point of view, this is certainly a possibility in a wooden structure. A further interpretation should be kept in mind. If we accept that constructional timbers may have come from trees that were two or three centuries old at the time of felling, then the radiometric evidence would not rule out the possibility that the rampart in Cutting E had been thrown up in response to a rumour of the Hiberno-Norse raid of AD 870. Unfortunately, the scale of destruction which the rampart had suffered makes it impossible to decide between these different chronological interpretations.

A number of finds of early medieval date come from Cutting E (illus 35 & 36). They include two iron knife blades with characteristic thick backs and heavily whetted blades (cat nos 24, 25); imported amphorae of Class B11 (cat nos 46-48) and a sherd of E-ware (cat no 51); two crucibles or warming trays of a distinctive form known from this period at Mote of Mark

(cat nos 54, 55); and a glass inlay or mount (cat no 80) with a parallel at Dundurn (Alcock, Alcock & Driscoll, 1989, cat no 32). All these objects are likely to fall within the period between the later fifth or sixth and the eighth centuries AD. A later chronological range is represented by a pommel bar from a Viking sword of Petersen Class I (cat no 26) and a lead weight, ornamented in characteristic Viking fashion with a fragment of jewellery, in this case a segment from a glass bangle (cat no 27).

The radiometric and artefactual age-estimates may now be correlated with the historical references to Clyde Rock. A rampart built in the mid- or later-seventh century, or repaired at that time after having been constructed originally in the later-sixth century, would fit very well the description of Clyde Rock which Bede wrote in AD 731: 'a strongly defended political centre up to the present day', *usque hodie*. The dating of the imported pottery and glass vessels from Cutting E, and in greater quantity from Cutting D, is consistent both with the Bedan reference and with the radiocarbon age-estimates. It is also consistent with the evidence for the Rock as a royal seat at least from the later sixth century, in the time of Columba and King Roderic son of Tothal. It could not, however, be used either to confirm or refute the attribution of the Rock to that Coroticus who fell foul of Patrick.

At the other end of the history of early medieval Clyde Rock, the destruction of the earth, rubble and timber rampart in Cutting E immediately recalls the Ulster Annals account of the destruction of the citadel of Clyde Rock in AD 870, at the end of a four month siege by two Norse kings, Anlaib (Olaf) and Ivar (Ivar). It is tempting to attribute the only two objects of Viking date found on the Rock to this episode: the pommel bar from a Viking sword (cat no 26) which comes from the disturbed core of the rampart; and the ornamented lead weight of Viking type (cat no 27) which is from its immediate rear. When, however, we recall the extremely complicated movements of the Viking kings of York and Dublin between Northumbria, Ireland, and Northern Britain (Smyth 1977; 1984, chapter 5), it is evident that this is too simple an explanation; there would have been many occasions, both peaceful and warlike, when such objects could have reached Clyde Rock.

Given the four-month siege, it is evident that the Rock was a considerable prize for Olaf and Ivar, and it may be surmised that the

destruction of the citadel was an important strategic objective. In the following year, the two kings went from northern Britain (Alba) to Dublin with 200 ships and a great booty of slaves from the Angles, the Britons and the Picts. Again it would be an over-simplification to see the siege and destruction of the citadel as the decisive event which opened up Alba to Viking slave raiding; but given the key position of Clyde Rock on the waterways of western Scotland, it cannot have been negligible either.

Finally, it should also be noted that a number of sherds of the thirteenth and later centuries, including at least seven examples of Saintonge-ware, were recorded in a limited zone in the rear of the rampart core, as well as uphill from it. There is, indeed a scatter of such pottery all the way up the slope; and its incorporation in the rampart can be accounted for by the activity of burrowing animals exploiting the one place on the hillside where there was a good depth of soft soil.

What follows is a list of features and finds in Cutting E (including a 3.50 m length of trench immediately outside the curtain wall: illus 31), which has been transcribed from the original site book with a minimum of editing. This record reflects faithfully our confused appreciation of the stratification as it appeared during the course of digging: confusion resulting in part from the original failure to realise that we were not excavating a metal-worker's stance but a rampart; in part from the very broken structure of the bedrock at the most critical part of the trench. In addition to the records transcribed here, the original site book also contains attempts by P Crew, the recorder for Cutting E, to organise and understand the recorded features by means of the Harris-matrix technique. These attempts were inconclusive, and they are not reproduced here, though they are of course preserved in the site archive. The present account, as will have been evident, is based almost exclusively on the only clear observation of the stratification made when the section A-A' could be studied in its entirety.

LIST OF FEATURES AND FINDS IN CUTTING AC/E (illus 28-31)

CUTTING E 000, 100, the original 2 metre square

E 000 UNSTRATIFIED FIND

From spoil heap.

Large piece of  
vitrified rock

E 001 TURE AND HUMUS

Loose dark grey/black humic soil.

Sandstone chips  
Slate  
Mortar NR  
Small pieces of teeth  
and bone NR  
Pottery, medieval  
and post-medieval  
Slag  
Sling stone?  
2 lumps daub

E 002 SECOND SCRAPE

(Bottom of trench only), loose dark  
grey/black humic soil. (At top of  
trench, a row of loose blocks (poss  
sandstone) on edge of short rock  
scarp - see E 102 LOOSE BLOCKS).

Sandstone chips  
Slate  
Mortar  
Small pieces of teeth  
and bone NR  
Pottery sherds, med  
and post-med  
Pipe stem NR  
Slag, 1 piece  
Vitrified rock

E 003 ABOVE LOOSE BLOCKS

Loose dark grey/black humic soil, many  
roots, filling interstices above and  
between blocks.

Sandstone chips NR  
Slate, one piece  
holed. NR

NB: 003 = 001 =002

Medieval ? pot  
Teeth, bone NR,  
rabbit  
Slag  
Mortar NR, some  
adhering to  
blocks 102  
Bone point  
SF 10 Saintonge sherd  
Vitrified rock

E 004 LOOSE BLOCKS MATRIX (=102)

Loose dark grey/black humic soil,  
many roots. Hill rock, sandstone, slate  
and mortar chips frequent.

Bone and tooth NR  
1 piece slag?  
Metal object(Fe  
nail?)  
1 large sherd med pot  
1 indet small sherd  
Vitrified rock

E 005 BELOW LOOSE BLOCKS

Pockets of earth and small hill-rock  
stones in hollows in bedrock.  
NB This is hardly distinguishable  
from 004.

1 large bone NR  
1 flake green glaze  
Part of squared off  
roofing slate with  
slanting holes NR.

E 006 THIRD SCRAPE

For bottom half of trench only.50-100 mm  
taken out, indeterminate loose grey/black  
humic soil. A few blocks of sandstone  
and hill-rock, and a surprising number  
of roof slate fragments, a greater  
proportion than in 003,102,004, etc.

Holed roof slate NR  
Bone and teeth frags  
NR  
Glazed pot  
Unglazed pot  
SF14 Crucible?  
Nail head

Saintonge ware  
Vitrified rock

E 007 FINAL SCRAPE

At foot of trench only. Another step in bedrock gives deeper pocket of soil/ stones.

Bone frags NR  
Medieval pottery  
Unglazed pot  
2 large pieces slag  
Iron nails  
Vitrified rock

E 008 EXTENSION OF TURF AND HUMUS

Trench extended 1 m downhill to take opportunity of examining deep pocket of soil. Dark grey/black humic soil, many roots, large rabbit hole.

Rare frags animal  
teeth & bone NR  
Frag holed slate NR  
Glazed pot  
Unglazed pot  
Slag or vitrified  
rock  
Fe nails  
SF1, cat no 27, lead  
weight with glass  
bangle fragment  
setting  
Saintonge sherd

E 009 ANOTHER EXTENSION (TURF+HUMUS)

Another 1 m downhill, see above  
Noticeable increase in slag and burnt stone and corresponding decrease in building materials.

1 frag bone NR  
1 Fe nail (+ mortar?)  
Glazed medieval pot  
Slag  
Burnt stones and  
vitrified rock



E 010 FOURTH SCRAPE

50-100 mm scrape over whole of bottom half of trench. Dark grey-brown loose soil; loose stones (hill rock) some sandstone, some slates. NB small area of bedrock(104) appears to be burnt.

Bone and teeth frags  
some burnt NR  
Glazed pot sherds  
Unglazed pot: 2 rims;  
& SF 12, cat no 51,  
E-ware base angle  
Numerous pieces slag  
Piece burnt rock  
Daub  
Piece of lead  
Lower quern frag

E 011 LOOSE STONES, BURNT

Triangular area of loose stones, earth, roots, lying in angle of bedrock. Notable amounts of slag, burnt rock and vitrified rock. No detectable stone features; bedrock burning (see 010) appears below, but no positive signs of 011 being burnt in situ. (Note: rabbit hole at lower edge of 011).

Few frags bone, burnt and unburnt NR  
1 large vitrified rock  
Slag, mainly flat  
2 odd flat stones with rounded edges  
2 sherds med green glaze pot

E 012 DREADED ROOTS

Removal of 010 FOURTH SCRAPE revealed possible line of loose stones going diagonally across trench. 012 is loose humic material overlying and in those stones which extend almost to foot of trench (see 013). Chips of sandstone, pebbles, slate etc. Small charcoal frags noted.

Frags of bone & teeth mostly burnt NR  
Burnt stone, slag  
3 pieces glassy slag  
3 Fe objects  
Large piece burnt wood  
1 sherd glazed pot

E 013 LOOSE STONES, MORE BURNT

A continuation of 011 LOOSE STONES, BURNT Very few frags bone  
for about 50 mm depth. Loose stones mostly burnt NR  
(most burnt) in matrix of earth (itself Slag  
apparently not burnt). Bedrock burning Some granite flakes,  
(104) continues to spread, but not 1 with slag  
continuous. Several burnt flakes of adhering  
stone against bedrock seem to have Samples of burnt  
protected it. Most of rabbit stone flakes  
disturbance now removed - on interface 1 Fe object  
of 013 and 'layer' below, see 015. 1 very small flake  
Small pieces of sandstone, 1 flake of of green glaze  
slate, otherwise hill-rock.

E 014 MORE ROOTS

Really only a further cleaning of Frags bone & teeth NR  
stones(103) revealed by 012 DREADED 1 slag droplet  
ROOTS above (ie 014 = 012). Loose earth SF13, cat no 55,  
and roots. dog-bowl crucible  
1 Fe object  
Piece of mortar NR  
Fragment of pot?

E 015 BELOW BURNT STONES

Sealed by 013 LOOSE STONES, MORE BURNT, Frags animal bone and  
but in fact a continuation of 103B and teeth, some burnt NR  
019. 50-100 mm layer of burnt hill-rock Vitrified rock  
sandstone and fragments of slate. and slag  
Piece of coal/shale  
'Rounded' stone

E 016 DOUBLE EXTENSION TURF AND HUMUS,  
see below, CUTTING E 200

2 m square extension to NW of main Slag etc.  
trench (= 20/30 series). This latter Brass button

square is notable for the concentration of nettle roots. Removal of T & H reveals sandstone blocks & etc. - (possible drystone wall?).

Iron nails  
Animal bones and teeth, some burnt NR  
Slate frag NR  
Pebbles NR  
except for 1 glazed pebble  
Mortar  
Pot: glazed & unglazed

E 017 BOTTOM RUBBLE

After removal of 016 TURF AND HUMUS in new 1m extension, further removal of c.100 mm of rubble (hill-rock, sandstone, mortar, slate etc.) in matrix of loose dark humic soil to expose a layer of yellow clayey soil, flat at foot of trench with a marked scarp (& 2 large blocks) as indicated.

Worked sandstone block with mortar NR  
Vitrified rock and slag  
Glazed & unglazed pot  
Rare animal bones  
incl burnt NR  
Slate frags NR  
Shale or coal  
Mortar NR

E 017A NO NAME

Possible turf line in SE corner overlying yellow layer - but much disturbed, and mouse nest along interface of 017 and yellow layer.

E 018 YELLOW OGS

Under 017. Burnt rock (hill-rock?), vitrified rock or slag embedded in it. Further consideration indicated that some renumbering was necessary, as 018A

E 018A YELLOW OGS

Is a wedge of dark yellow brown tough soil, plus flocks of charcoal etc. Possibly covered by old turf line. 017A. Overlies cleaner yellow layer (= top of 020) relatively stone free.

Slag  
Glazed pot  
Burnt animal bone and teeth NR  
SF15 Iron pin?  
and other iron

E 019 QUARE CORE

50-100 mm layer of burnt hill-rock, some sandstone, fragments of slate 'retained' by 106 QUARE KERB. In matrix of loose dark earth. Fragments of slate and sandstone (NR).

Slag droplet  
1 piece of worked bone  
Animal bone & teeth NR  
Rare burnt bone NR  
1 large piece bone NR  
Much vitrified rock  
Stone disc  
Iron awl  
Large pieces charcoal  
2 sherds green-glazed pot, 1 well stratified between 019 and 020  
Piece of quern?  
Piece of shale

E 019B CORE OF QUARE CORE

After removal of the baulk, the lens of stone/earth material previously thought to be (and photographed as) 020 remained stubbornly a darker colour than 020 proper. Hence taken out as separate layer, intermediate between 019 and 020. Approximately 50 mm deep.

Animal bone and teeth incl burnt NR  
'Slag', small pieces Saintonge sherd  
Charcoal NR  
Vitrified rock

E 019C CORE BLIMEY

Another 50 mm spit of dark (because wet?) yellow soil and stones - but not as compact as 'real' 020 (but had been exposed for several days)

Vitrified stone and slag  
Animal bone and teeth including burnt NR

E 020 BURNT BLOCKS MATRIX

Sealed by 019 and 018A. A tightly packed jumble of (mainly) burnt hill-rock with occasional large blocks of vitrified rock. Tough yellow/light brown soil frequent charcoal flecks. This soil is somewhat variable and where holes are big enough between rocks, animals have found them.

Slag and vitrified rock  
SF2 Blue bead  
Animal bones and teeth, burnt NR  
Slag droplets?  
Antler  
Burnt quartz  
SF9 Iron pin, double-spiral head  
Rare charcoal NR

NB Both 020 BURNT BLOCKS MATRIX and 204 BURNT BLOCKS MATRIX II end primarily on bedrock, usually with a thin layer of darker (worm disturbed?) soil separating them. Some deeper pockets of dark (humic) soil in the bedrock pockets - old OGS? But no finds in these except 021.

E 021 UNDER 'CURLING STONE'

In triangular pocket in bedrock. Very dark brown (humic?) soil, overlying compact blocks of apparently decaying and possibly burnt bedrock. Is this burning in situ? Difference possibly because of pocket being waterproof.

Burnt bone and other bone NR  
Vitrified rock

E 022 BELOW BURNT BLOCKS MATRIX

At foot of trench. Because of the lack of room, now very difficult to maintain distinction between 020 and what little of 018A YELLOW OGS remains. Mostly 020 however. Noticeable increase in degree of burning of rock of hill, amount of slag and burnt bone, towards edge of trench. Further cleaning revealed area of light yellow/orange sandy material and charcoal, over and amongst stones.

Vitrified rock  
Animal bones and  
teeth, espec burnt NR  
Charcoal NR

E 023 SANDY STONES AND CHARCOAL

Removal of top layer of stones revealed more charcoal/sand and more stones. No detectable features. Charcoal/sand appears to dip to foot of trench. Precise relationship of charcoal to sand is not clear. Sand appears generally to overlie the charcoal layers, but all rather mixed up. Sand itself varies from powdery yellow to granular orange. Charcoal varies: many fragments mixed in matrix of earth &c. plus burnt bone, and noticeable increase in relative amount of black, as against white/blue burnt bone. Several large fragments of carbonised timber - record photos record grain direction (horizontal, not vertical). Two "layers" of timber at different orientations, plus 'knot'- kept as sample for wood type etc.

Several C14 samples  
Vitrified rock x 2

E 024 LINK THROUGH

ie to charcoal/sand in 205 BURNT BLOCKS MATRIX III. Excavation of 023 and 205 left 50-100 mm of 204/203 at foot of

Burnt bone

trench, below step in bedrock. This removed, fairly stone free, to reveal continuous stones across trench foot, some patches of charcoal and sand. Not cleaned off thoroughly and thereafter left U/X, because 40/50 trench extended right through to 00/10 trench at this point.

For continuity, see E 407 and subsequent features.

E 102 LOOSE BLOCKS (illus 29:2)

At top (SW) end of trench is a rock step. On or near the tip of this is a line of loose blocks, apparently of sandstone. Trench extended uphill by 1 m to give a better view of this. Now appears as collapse or rubble from higher upslope. Various sandstone blocks up to 8-9 in (200 x 230 mm) and slate. Some blocks with mortar adhering including one on 2 faces (=rubble?). Several blocks worked (NR), one very good piece with rebate. Pieces of holed slate.

Sandstone blocks  
Slate

E 103 FALLEN WALL? TOP LAYER

Top layer of 'wall' removed; then decided to extend trench downhill and sideways to increase chances of recognising wall.

3 partially worked sandstone blocks NR  
1 large vitrified stone  
1 rounded and vitrified? stone  
Other slag and vitrified rock  
Bone frags (1 large

piece), some burnt NR  
1 iron nail

E 103A FALLEN WALL? SECOND LAYER

Removal of dark humic earth from around stones. Exposed blocks with mortar and slate (ie FALLEN WALL? is a layer of rubble).  
Slag/vitrified rock  
Bone frags, burnt and unburnt NR  
Daub?

E 103B =019

Remnants of FALLEN WALL?, removed as part of 019. 103B number not used except in record photograph.

E 104 BURNT BEDROCK

See 010  
Crucible

E 106 QUARE KERB ? AND WALL

Tenuous kerb, 100 mm high, 2-3 courses small blocks, on lip of scarp of 020  
Kerb line appears to continue into 200 extension = 304. Rocks mainly hill rock burnt, but some red and grey sandstone and rare slate fragments NR.

CUTTING 200 DOUBLE EXTENSION (illus 29: 3, 4 & 5)

See also above, E 016 &c

E 202 NETTLE ROOTS

Below 201. Removal of loose dark humic soil and nettle roots, to expose stones below. 150-200 mm getting deeper towards foot of trench.  
Whetstone query  
SF11, cat no 70  
glass chord  
Glazed and unglazed pot  
Slag/vitrified rock  
Fe nails and other



objects  
Animal bone and teeth  
some burnt NR  
Shale?  
Cinder?  
Saintonge sherd

E 203 YELLOW AGAIN (= 018A)

Sealed by 303A. The scarp in 020 continues across trench to a spine of bedrock. The scarp, identical with that in 204, seems to continue across to the extension trench, but less well defined. In front of this is 203 - wedge of dark yellow fairly stone free soil and frequent charcoal flecks. (Note 2 slates in bottom section presumably in front of or above 303A).

Rare burnt bone NR  
Rare slag NR  
Iron nail  
Glazed pot sherd  
Vitrified rock

E 204 BURNT BLOCKS MATRIX II (= 020)

Sealed by 303A and 305. Very similar to 020, but more affected by animal burrows and somewhat mixed with 203. No glazed pot firmly stratified in this layer, but SF 4, 5, and 6 from tight concentration of stone and well stratified.

Glazed pot, incl polychrome from animal burrow.  
SF4, cat no 26 iron pommel bar  
SF5 Vitrified pot  
SF6, cat no 24 iron knife blade  
Burnt and vitrified rock  
Various foreign rocks  
Much burnt animal bone NR  
Slate fragments  
Rare charcoal NR  
Saintonge sherd

E 205 BURNT BLOCKS MATRIX III

Towards bottom of trench. Increasingly difficult because of room to maintain 203/204 distinction - hence all taken together; but mainly 204. Animal burrows

Glazed pot  
'Slag', vitrified rock  
Much burnt animal bone NR  
Rare charcoal NR

After a day in the sun and rain, and after recognition of 023, it was noticed that the corner of 20/30 trench also had charcoal and sandy layers.

For continuity see E 407 and subsequent features.

E 301, 302 not used

E 303 RUBBLE BLOCKS

Below 201.

E 303A FRONT

ie. below putative kerb. Loose dark humic soil, roots and mouse holes. Mainly rock of hill; some burnt; some sandstone; some slate. Overlies yellow layer 203. Identical with 017 BOTTOM RUBBLE.

Burnt rock NR  
Vitrified rock and slag  
Burnt and unburnt animal bone NR  
Glazed pot handle and body sherd  
SF3, cat no 3,  
Edward I silver penny  
Fe object

E 304 KERB?

Identical with 106 QUARE KERB

Vitrified rock

E 305 RUBBLE BLOCKS

Behind putative kerb. Mainly hill rock  
in loose dark soil (as 303A). Identical  
with 019 QUARE KERB.

Animal bone some  
burnt NR  
Glazed pot  
Vitrified rock  
Daub?  
Brick?  
Fe nail

E 306 BURNT BEDROCK

Identical with 104 BURNT BEDROCK

CUTTING E 400 (illus 29: 6)

E 401 SCARP LIP TURF

Humus with rare stones including  
slate NR.

Rim sherd  
Brick fragment?  
Burnt rock fragment  
Fragments of slate  
one with burnt bone  
Iron objects

E 402 STEEP STONES

Under 401, resting directly on bedrock.  
Compact layer of small stones, mainly  
rock of hill, some burnt, some vitrified  
in matrix of yellow/light brown soil.  
Some charcoal flecks. Similar to 020  
but smaller blocks, not so many burnt  
and not quite so compact.

SFB, cat no 80 Glass  
inlay or mount  
Cat no 54 Dog-  
bowl crucible  
Rare animal bone  
some burnt, NR  
Iron objects  
Rare charcoal NR  
Daub/mould?  
Vitrified rock

On cleaning back 25 cms, 402 seems to  
consist of 3 layers:-

a) a thin layer of blocks (#017/303A?)

- b) stone free yellow soil (≅018A/203?)
- c) more stony and compact (≅020/204?).

E 403 SCARP LIP TURF EXTENSION

40/50 series trench extended up hill for approximately 1 m. 403/404/405 all taken out quickly and together - all finds in same tray under 403.

E 404 LOOSE TUMBLE

Single stony layer of blocks; sandstone and rock of hill. Irregular.

E 405 YELLOW PERIL

Stone free yellowish soil; compact, rare stones, rare charcoal and burnt bone, but more concentrated pockets (esp. lower down). Note, unusual depth as compared to occurrence elsewhere.

E 406 STONES AT LAST

Equivalent of 020? Not so compact, not so large a proportion of burnt rock of hill. Charcoal and burnt bone tends to be concentrated in pockets rather than spread evenly. A few only pieces of vitrified rock, but especially close to bedrock. Layer only 100 mm thick on average, going straight down to bedrock.

SF17 Dog-bowl  
crucible

E 407 LAST EXTENSION (illus 29: 8)

(Right through to level of 023/024).  
Last metre or so of ground removed to link 00/01 and 40/50 trenches.

Vitrified rock  
Mail  
Glazed pot

a) Turf and humus; b) thin layer of tumbled blocks with slate and worked

grey sandstone blocks; c) thick layer of stone free yellow soil and rare charcoal and burnt bone; all removed quickly with picks to reveal the compact stony layer beneath(\*409).

#### E 408 BURNT BANK?

Half of trench removed to bedrock for photos etc.

a) After initial removal of compact stones/yellow soil revealed:

b) thick layer/patches of charcoal with burnt bone etc. This charcoal is presumably a continuation of that in 023 and below 024 and 025.

The stones and yellow soil above are presumably the equivalent of 020.

#### BURNT BLOCKS MATRIX.

c) Under charcoal, more stones/yellow than OGS, orange

(d) to bedrock.

SF18, cat no 25,  
probable knife blade  
definitely in 408  
i.e. under charcoal  
Numerous vitrified  
rocks

#### E 409 T'OTHER HALF

Other half of trench. Yellow soil and compact stones(= top part of 408) removed to expose charcoal layer below.

SF19, cat no 46  
Bill sherd at  
409/410 interface  
Burnt rock  
Daub?  
Burnt bone

#### E 410 CHARBONNET

Charcoal and ash and much burnt animal bone and some small stones. Perhaps deeper and denser towards lower end of trench. Lay on the patchy surface of 411. Stone burnt but not vitrified.

SF20 Bronze  
Iron object  
Burnt bone  
samples  
Vitrified rock

E 411 MOTTLED BROWN

Under 410

E 412 DENSE STONES

Cleaning down top end of 409? revealed Burnt and unburnt little charcoal (because already removed?) animal bone & teeth but a concentration of large stones, Vitri-fied rock, small rock of hill. Some removed before photos Metal object, small taken, higher and back against bedrock.

In matrix of loose dark earth, wormed? burnt bone, unburnt bone, flecks of charcoal, odd scraps of vitrified rock etc.

At this stage 412 was taken to include very large stones to the S., ie by step in bedrock; and some of fill between these was taken out as this. But then clear distinction was noticed between fill between downhill, smaller stones = 412, and uphill, see 413.

E 413 UNBURNT BONE

Towards step in bedrock, fill was more Cat no 47, Bii powdery, though still had many small- amphora sherd medium stones. Most distinctive feature Vitri-fied rock was presence of rotten unburnt bone; but charcoal was also present.

Particularly against step in bedrock, in little 'niche' fill was very damp.

E 414 NATURAL ORANGE

A natural clay or soil on bedrock intermittently - elsewhere 413, 412, or 411 lie on solid rock. Charcoal patches and pockets on the surface. Some stones, small and rare.

E 501 THE BLACK HOLE

Wedge of dark charcoal/burnt bone rich earth, sealed by 406 tumble. High concentration of charcoal and burnt bone -white/blue fragments, but mainly black and rather gungy. Apparently a bowl shaped concentration, nearly lost in main section. Overlies partially a wedge of corroding bedrock and natural soil in angle of bedrock (ie protected).

Burnt bone  
Vitrified rock

CUTTING E 600: against outer face of masonry curtain wall (illus 28 & 31)

E 601 WALL TURF AND RUBBISH

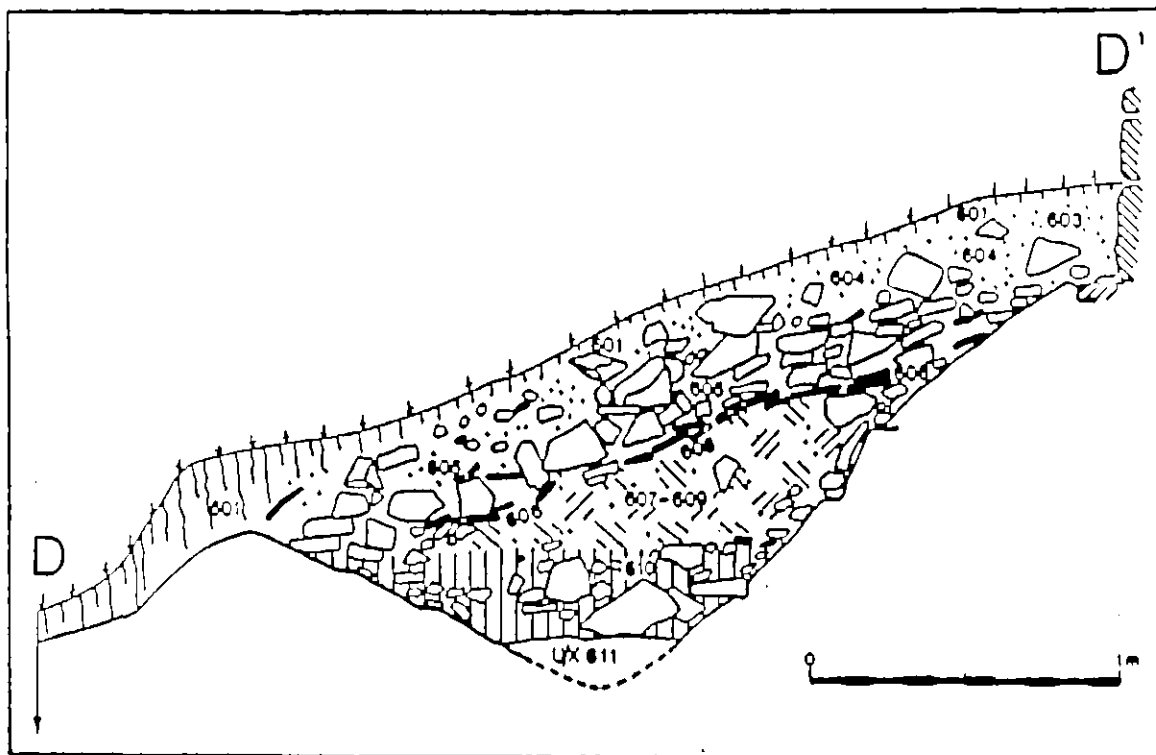
Layer of vegetation and humus. Very thin near base of wall, thickening towards scarp, then bedrock. Much disturbed by ivy roots. Contains gobbets of grey mortar - ie dropped out of pointing?

Red sandstone and mortar  
Brick NR  
Slate NR  
Asbestos sheet NR  
Frag bone  
Glazed pot  
Glass NR  
2 Fe objects  
Button  
Animal bones NR

E 602 YELLOW MORTAR CAP

Layer of recent mortar (note asbestos sheet embedded in it) of varying extent and thickness. Still hard in thickest areas; broken up by roots where thin; but definitely extends to wall. Contained brick, glass, pot; overlay slate, pieces of old pointing, themselves on an apparently thin black humus (=old turf?) layer. Lower part

Old pointing (grey)  
Grey & green slate NR  
Frag brick or tile  
Grey mortar fragments  
Glass NR  
Glazed pot  
Asbestos sheet NR  
Vitrified rock



ILLUS 31 Cutting E: Section against the masonry curtain



of 602 degenerated to lighter dusty matter.

E 602A THIN HUMUS

Sealed by 602, overlying 603 and 604. Very thin (brushed away!) except up against wall.

E 603 GREY MORTAR CAP

Sealed by 602A and 602. Loose dark soil with pieces of grey mortar and yellow mortar. Thicker and harder against wall. Overlies offset at back of wall.

Slate NR  
Grey sandstone NR  
Grey mortar  
Red sandstone NR  
Yellow mortar  
Frag brick/tile

E 604 YELLOW/GREY MORTAR

Sealed by 603, sealing upper part of 605. Variable thickness and consistency, lens of yellow/grey mortar lumps, odd hard areas, humus mixture. Impression of 'multiple' layer - build up of vegetation and pointing droppings over some time. Layer peters out at break in slope. (Another offset appears in curtain wall).

Slate, mostly NR  
Red sandstone with mortar  
Vitrified rock

E 605 COLLAPSED YELLOW MORTAR BLOCKS

Spreads from wall, evenly thick at c.200 mm, petering out at break in slope of bedrock. Upper part (ie. under wall) sealed by 604. A tightly packed jumble of unworked rock of hill, with a few grey and red sandstone blocks and flakes, mostly with mortar adhering, interspersed with slates at variable

Snail shells NR  
Cockle shells NR  
Winkle shell NR  
Yellow mortar - sample  
Pipe bowl, decorated  
2 glazed sherds  
Mussel and oyster

angles, in matrix of mainly degenerate mortar and grey lime/humic soil.	shells NR
Frequent snails, even at lowest levels (ie. spaces open between blocks?).	Animal bones NR
	Iron nails
	Vitrified rock

E 606 SLATES

Over much of trench, lying virtually on bedrock with a fair number of slates defining original interface. Some slates broken, to conform to the bedrock contours, presumably by force of tumble or subsequent compression by 605	Slates Green and blue roof slates NR Animal bone and teeth some burnt 2 Fe objects
Noticeably more compact within 0.5 m of foot of wall. Note: absolutely no trace of burnt material.	Oyster shell NR Glazed pot

E 607 UNDER SLATES

50 mm spit removed. Irregular grey/light brown soil, frequent small pieces of mortar, rare charcoal. Small blocks of rock of hill, some with mortar.	Animal bone and teeth some burnt, some fresh some weathered Cockle shell Oyster shells Fragments burnt rock 3 Fe nails Glazed pot
--	--

E 608 UNDER SLATES, SECOND SCRAPE

Another 50 mm or so. Same as 607. No detectable features, except possible mortar concentration going diagonally across trench. 608 appears to lift cleanly off mortar-free soil, now in hollow in bedrock and not linked to rear wall.	Glazed pot Animal bones and teeth NR Utilised bone? Rare oyster shells 1 whelk shell Winkle shell NR
--	---

E 609 UNDER SLATES, 3rd/4th SCRAPE

Removal of spread of mixed mortar/other building debris on average c.50-60 mm thickness. Spread running diagonally across trench(=608) revealed a khaki/brown soil, fairly compact and extending consistently over the trench. This was excavated in a series of spits, each approximately 50 mm in thickness. Each successive cleaned surface was examined but produced no detectable features. Soil was mixed with lumps of mortar, fragments of basalt, sandstone, slate, and gravel - (liberated from decomposed mortar) also many animal bones and sea shells - some small lumps of charcoal. Bedrock exposed in the upper part of the trench subsequent to 4th scrape. LA detects mortar on bedrock - re-precipitated?

Animal bone and teeth  
NR (lamb)  
Rare oyster, winkle  
and cockle shells NR  
Iron object  
Bronze object  
Cat no 48, Bil sherd  
and other sherds.

E 610 BOTTOM BLOCKS

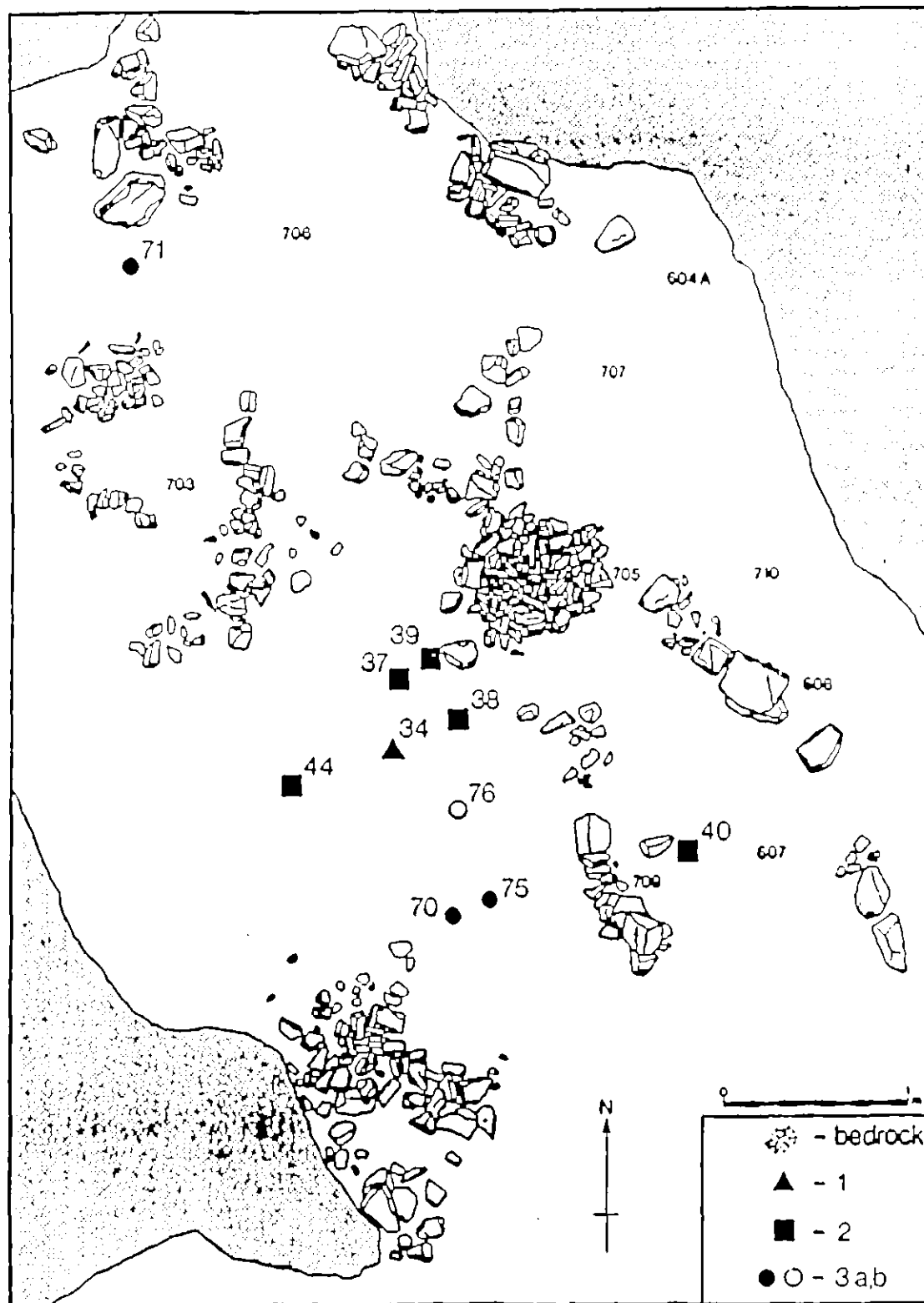
In foot of vee trench - small to large blocks of rock of hill resting on 611.

E 611 CORRODING BEDROCK

Fragmentary, light brown/yellow sandy corroding bedrock.

Southern Terrace of The Beak: Cutting D (illus 32, 33)

S and SW of the supposed citadel on The Beak, the ground becomes somewhat broken, and even rocky, before the plunge of the main crags to S



ILLUS 32 Cutting D: Plan at the general level 603/604, showing the amorphous character of the stone 'features', and the distribution of sherds of: 1, colour-coated Romano-British bowl; 2, amphorae of classes B1 & B11; 3, 'exotic'/'germanic' glass, - a, precisely located, b, approximately located. (Numbers refer to the finds catalogue)

and W. Round much of this arc, however, there is a more or less level terrace, which appears on some air views of the Rock as a light (i.e. high-lighted) band. Given its southern aspect, and a little shelter from the E and especially the N afforded by the highest ground of the summit, it was thought that this terrace would make an excellent stance for human occupation; and that this might be reflected in the presence of buildings. Cutting D was laid out to explore this hypothesis.

In the 1974 season, the cutting took the form of a three-metre square. The available labour resources did not allow this to be fully excavated in 1974. The finds, however, were sufficiently interesting to encourage further work: in addition to the modern building debris so prominent in Cutting B, medieval material included two silver pennies of Edward I (cat nos 2 and 6), and a fragment of a strap handle from an E-ware pitcher (cat no 49). Since this was the only object of Early Historic date to be recovered in 1974, it was of great significance in determining that the excavation should be resumed in 1975.

In 1975, Cutting D was expanded to W, S and E into an area 10.0 m long E - W by 6.0 m wide. This was then treated as an open area excavation, dug by small tools - trowels and small picks - in a series of shallow scrapes or spits. It had been hoped that these would encounter a genuine stratification of floors, building levels, natural ground surfaces and so on, which could then be followed throughout the cutting. Unfortunately, the whole area was found to have been deeply disturbed. No genuine stratification markers were discovered, so the scrapes became arbitrary spits, at the base of which the stones which had been exposed were carefully planned.

It had also been hoped that, by this means, traces of walls and other structural features might be recorded; but this hope was similarly frustrated. In a generally stony fill, there were indeed some concentrations of stones, some of which rose through two or more scrapes. There were also occasional very crude alignments of stones, but none of these ran for more than 1.90 m, none had returns or parallel alignments, none suggested coherent plans at any level.

In terms of finds, however, the slight promise of the E-ware sherd was fulfilled, in that Cutting D yielded the greatest concentration of Romano-British and early medieval pottery, and also of germanic glass, to be

found on the Rock. There was, in fact, a definite scatter of such finds running NE - SW across the cutting in a band up to 1.40 m wide, starting between 3.50 m and 3.90 m from the N edge of the trench. There was, however, no observable correlation between this and any of the rough stone 'features'. The same scrape yielded Saintonge ware and other medieval pottery, so there was no stratigraphical significance in the location of the finds of earlier date.

These results, so disappointing in terms of structures, have determined the method of presenting Cutting D in this report. The character of the 'features' in plan is demonstrated with an example of one of the individual surveys, that at level 604, the base of the third scrape in the E half of the trench (illus 32). This also records the distribution of finds of early medieval date from that area.

The E section is also illustrated here (illus 33), to give an impression of the rugged character of the bedrock and to demonstrate the depth to which modern disturbance, reflected by the deposition of builders' debris, had penetrated. It should also be remarked here that the irregularity of the bedrock negated the hypothesis that a level platform had been created, by quarrying down protruding bosses and filling in hollows, in order to provide a stance for buildings.

In support of these illustrations, the 600/700 series of features and associated finds is printed here. The transcription of the full site record, with its list of features and finds, together with original field drawings and fair copies of these, have been deposited in the site archive.

The following finds from Cutting D are relevant to the early medieval occupation of Clyde Rock. Among Class B amphorae from the Rock, the only two examples of B1 came from here (cat nos 37, 38), as did 7 out of the 10 examples of B11 (cat nos 39 - 45). These probably represent a total of 7 or 8 vessels. Three out of 4 (or possibly 5) sherds of Class E also came from AC/D (cat nos 49, 50, 52). All the sherds of glass vessels which Dr John Hunter considers 'might belong to the 6th-7th centuries' were recovered from D (cat nos 66, 68, 70, 71, 75, 76). Moreover, two other sherds from D, and possibly from the same vessel (cat nos 67 & 72), may also be this early: a total of 7 glass vessels. All seven examples of

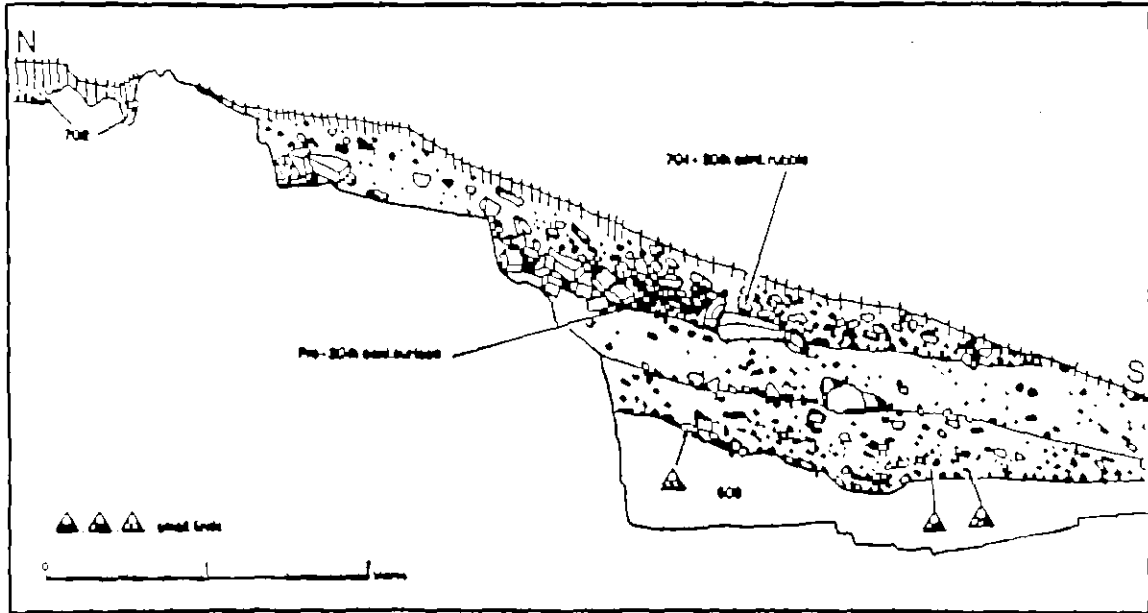
small thin-walled crucibles, possibly but not certainly of this date, are also from D (cat nos 56-62).

On the reasonable assumption that rubbish dispersal is more likely to have occurred in a downward, rather than an uphill direction, these finds imply the existence of a well-to-do household on the summit area of The Beak to the north of Cutting D; importing wine from the Mediterranean, serving it in flagons from Gaul, and drinking it from glass beakers of germanic origin. In the vicinity there may have been a workshop working bronze to create high class jewellery. In the context of the early historic references to Clyde Rock, this household must have been a royal one.

It is against this background that we must interpret the Romano-British material from the Rock. With the exception of the decorated Samian sherd (cat no 29) from Cutting A, this was all found in Cutting D. The unusual character of this assemblage must be emphasised. There are no bronzes, no coins, and only one coarse-ware sherd (cat no 36). The bulk of the material consists of 3 sherds of decorated Samian (cat nos 29-31), 2 of undecorated Samian (cat nos 32,33), one from an orange-red colour-coated bowl, probably from the Oxford region (cat no 34), and a colour-coated handle, probably from the Nene valley (cat no 35). The chronological range is also remarkable, in that these 8 sherds cover the period from c.70-85 AD to the fourth century. Except for no 29, all of them were found in Cutting D; and in two cases, the site records note that there were 'Dark Age' finds in the immediate vicinity. These were a Bii sherd (cat no 42) with no 32, and an E-ware flagon neck (cat no 50), with nos 35 and 36. It is reasonable, therefore, to see this as an example of the 'reliquary' occurrence of Samian and other high-status Roman pottery on post-Roman sites in northern and western Britain, and no less in Ireland (Warner 1976;1981; Alcock & Alcock 1987, 131 with reff).

#### LIST OF FEATURES AND FINDS IN CUTTING AC/D 600/700 (illus 32, 33)

##### CUTTING 600



ILLUS 33 Cutting D: Section of E face



D 601 TURF

Excavated by spade. Turf stripped off to reveal a few stones scattered over whole area. On eastern side bedrock visible to N but south of this was steeply sloping deposit of 20thC rubble. Along the north section a sloping deposit of angular basalt fragments appeared to be related ie contained asbestos on surface.

Asbestos tiles  
Leather glove  
Slag  
Flint pebbles  
Mortar fragments  
Brick  
Roofing slates  
Glass  
Iron nails  
Clay pipe stems  
Rare animal bones  
Pottery, modern and  
poss post-medieval  
Pot tile pieces  
Key  
2nd WW cartridge case  
cigarette lighter NR  
Mostly NR

D 602 FIRST SCRAPE

Excavated by hand mattock and trowel. The northern edge of the trench had up to 400 mm removed - bottom 50-100 mm by trowel once it was realised that this area differed from eastern edge where 701 BUILDING RUBBLE had been successfully excavated. The rest of the trench had 50-100 mm removed by trowel revealing a few concentrations of stones in a general distribution which faded out in the bottom 3m of the trench. One wall-like feature was given number 703. It is probable from the northern section that some sort of feature cut

Asbestos NR  
Animal bones & teeth  
NR  
Glass NR  
Iron nails and other  
iron work  
Pipe stems NR  
Various pebbles NR  
Slag  
Coal NR (shaley)  
Flint  
Crucible fragment  
Furnace lining  
Cat no 69, Window  
glass

into the general soil build up to the north out of which bedrock appears irregularly beyond the trench edge. 20thC debris was present on surface in N but seems to have quickly given way to fairly stone free soil except for 2 central concentrations which both lost stones in over-hasty mattocking, and an eastern deposit of medium angular basalt fragments. This NE area and part of the central stone concentration have been given the number 702 as they appear to have possibly been cut in from above. If this is correct the observed concentration of clay pipe fragments in this general northern area may be relevant.

The soil below the 20thC dump was noticeably lighter, probably due to mortar being washed through from above. Darker soil in NE and N areas may be due to greater depth below roots. There are however several fragments of coal in this northern area.

Basalt fragments in 602 may be the same as solid deposit traced from 603 - and given 706. But large stones in 702 were something else.

#### D 603 SECOND SCRAPE

Removal by trowel of 100-150 mm of soil. Revealing further concentration of stone particularly in the northern part of the trench where a dense packing of small and medium sized

Iron rod  
Saintonge sherd

SF10, SF11,  
worked bone objj.  
Asbestos NR  
Slate NR  
Abundant animal bones

basalt fragments and blocks extends over an area of some 2 x 3 m. Some modern material is still being found. The NE part of the trench has some very dark almost sooty areas edged by bedrock to the E (see 603A). A possible pit 703 was recognised in 603 though it may have been partly visible in 602.

Southern area of trench still has comparatively few stones in it. This area had the greatest depth removed in this spit.

some burnt NR  
Clay pipe stems  
mostly NR. Bowl frag R  
Modern and medieval  
pottery.  
Iron nails & slag  
Perf. slate rounder  
Brick NR  
Cat no 28,  
Lead weight  
Stone counters  
Other iron objects  
Mod hair slide  
Iron buckle  
Bronze strip  
Clay pipe bowl, one  
end of stem  
Lead musket balls  
Daub?  
Pottery counters  
Slag droplets & other  
slag  
Cinders  
Mortar  
Animal teeth NR  
Shaley coal NR  
Pencil graphite  
Flint  
Poss slate roundel  
Piece burnt wood NR  
SF17 Iron shears  
SF19, cat no 1, coin  
Iron key  
SF8, 9, cat nos 70,  
71, germanic glass  
Cat no 72, possible

germanic glass  
Cat nos 73,74, post-  
medieval glass frags  
Saintonge sherd

D 603A DARK SOIL

Fine black soil with very few roots  
in it immediately to west of bedrock  
Slightly sooty appearance. Finds kept  
separate from rest of 603 as it was  
felt that it might be a more modern  
deposit lying on rest of 603 surface  
It did appear to clean off partly to  
another lighter surface.

Slate NR; also  
one small piece and  
perforated edge  
Animal bone NR  
(Several tiny burnt  
fragments)  
Med & mod pottery  
Clay pipe stems NR  
Iron nails and other  
iron  
Glass  
Shaley coal  
Piece of burnt wood?  
Poss worked pebble?  
Saintonge sherd

D 604 THIRD SCRAPE

Removal of spit of soil and stone  
c.50 mm revealing further concentrations  
of stones and several alignments with  
some edge set stones. "Selectively  
planned" and photographed. 705 PACKED  
STONE continued as well packed area.  
703 PIT may have disappeared though  
not very clear. Dense small stone  
scatter in north with slightly less  
dense and larger stone to E.

SF21 "Bronze" strip  
SF19 Iron cross-bolt  
Abundant mod pottery  
Rare mod pottery  
Slate, mostly NR  
Animal bones, some  
burnt and teeth NR  
Tusk R  
Some worked bone  
Iron nails and  
other iron  
Slag  
Clay pipe stem NR,

1/2 bowl R Stem end R  
 Glass  
 Glass ball  
 Stone hone  
 Cinders  
 Gun flint  
 Shaley Coal  
 Cat no 40, BII sherd  
 Sherd E ware?  
 Incised slate  
 Mortar NR  
 Daub  
 Pot roundel/counter  
 Musket ball  
 ?Bronze tube encased  
 in ?vegetable matter  
 Sandstone whetstone

D 604A

Eastern edge by bedrock still has  
 areas fairly stone free with very dark  
 soil. It has been treated seperately  
 in case it is a later feature cut  
 through the stony layers. If finds do  
 not suggest that then probably division  
 may be dropped.

Iron nails and object  
 Animal bone, some  
 burnt frags NR  
 Med & rare mod  
 pottery  
 Worked stone?  
 Iron anagon?  
 Saintonge sherd

D 605 FOURTH SCRAPE

Removal of a spit of soil and stone of  
 c.100 mm. This removed some of the  
 groups of stone planned in 604 THIRD  
 SCRAPE. The dense small stone 706  
 DENSE BASALT FRAGMENTS continued in 605  
 though some bedrock appeared through  
 at the northern section and in the

Abundant animal bones  
 and teeth NR  
 Slate NR  
 Abundant med pottery  
 Modern glass  
 Abundant iron nails  
 and other iron

centre of 706. A very compact area of stone 707 was planned now onto the 604 plan. It had been recognisable in 604 but perhaps with not quite the same density. There is still stone in the area of 705 but only as part of a wider stone scatter. A stone alignment 709 had more stone revealed in 605. The curving rubble 103 now appears in trench 600 as 708. After the medium stone of 708, an area of small shattered basalt runs out towards bedrock of 301?

Worked stones?  
 2 clay pipe stems NR  
 ½ clay pipe bowl  
 Slag  
 Cinders NR  
 Shaley coal NR  
 Daub  
 Perforated slate  
 Bead?  
 1 pot & 2 slate  
 counters  
 "Stone fly-wheel"  
 Slate roundel  
 Stone hone  
 SF22 Lead bead  
 SF23 Stone bead  
 Perf sandstone pebble  
 Sandstone whetstone  
 Saintonge sherd

D 606 FIFTH SCRAPE

Removal of c.50 mm soil and stone. Revealing considerable bedrock in N of trench with some clefts still filled with small basalt chips and soil. Southern area still some stones set in soil to S of position of 707 COMPACT STONE. Also filling cleft where 707 had been. West edge of 708 still has small stone running down to bedrock. Soil in east still quite dark but probably due to being root free.

Abundant animal bone  
 small amount burnt &  
 teeth NR  
 Some possibly worked  
 bone  
 Slate NR  
 Glass rare  
 Iron nails and  
 other iron  
 Slag  
 Daub  
 Abundant med pottery  
 Slate roundel  
 Cat no 44, Bii sherd  
 Cat no 34, Roman

colour coated sherd  
Saintonge sherd

D 607 SIXTH SCRAPE

Removal of c.100 mm of soil and stone exposing bedrock throughout N and W of trench. Few stones planned onto 604 plan and position of scatter of Roman/Dark Age Finds. All at roughly the same depth but scattered across the trench. Only a triangular area is left bounded by bedrock. In the W this is almost a solid deposit of small angular basalt;? shattered bedrock. In the east there is a dark patch c.1.30 x 0.60 m in angle of bedrock, given 710. This is the richest area for finds now. Another 2 x 2m S of 710 and E of small stone is very stony but produces some finds and still has soil with a little charcoal in it. Also some mortar in this. South edge of the trench bedrock exposed. Last 1/2m reverts to small angular basalt with very little soil.

Animal bones and teeth NR incl burnt Daub  
Glazed pot  
Iron nails etc.  
Pebbles NR  
Tile frags NR  
Lead fragment  
Minute crucible  
SF24, cat no 37,  
Bi sherd  
Cat nos 39, 41, 45  
Bii sherds  
SF25, cat no 75  
also cat no 76, glass sherds, germanic  
Saintonge sherd

D 608 LAST SCRAPE

Removal of last soil. Remaining area of soil containing much stone. Bounded by E section; to S really dense small stone with almost no soil - this appeared as a straight edge running from bedrock to E section but may be only a pocket of soil left in centre by excavation rather than deposit cut

Animal bones and teeth NR  
Pebbles NR  
Much glazed pottery  
Iron nails and slag  
Lead strip  
?Shale  
Crucible fragment

into lower stone. To W small dense stone Dolerite pebble  
noted in 607. Vitrifified rock

D 609 TO BEDROCK

Removal of deposit -up to 0.5m of dense Small bead  
basalt fragments with little soil by Vitrifified rock  
pick and shovel. Revealing bedrock  
through 600.

CUTTING 700

D 701 BUILDING RUBBLE

Excavated by mattock and trowel. From Glass NR  
c.1.0m S of the northern edge of the Brick  
trench a sloping deposit of building Asbestos NR  
rubble and modern material ran down Clay pipe stems NR  
the eastern edge of the trench. At Slates NR  
widest c.1.50 m fading out to c.0.50 m Pot-tile  
from the southern edge of the trench. Whetstone  
Probably thrown down from the rock Lead washer  
scarp above. Cleaned off to reveal Animal bone and teeth  
O.G.S. of roughly same level as rest NR  
of 602 FIRST SCRAPE - though lighter Med and mod pottery  
in colour and less rooted. Iron objects and hook  
Brass object  
Worked sandstone  
block  
Drainpipe  
Iron drain pipe NR  
Plaster  
Cat no 77, window  
glass

D 702 ANGULAR BASALT FRAGMENTS

Surface appearance, after deturfing Coal NR  
of similar deposits to N and E of Clay pipe



trench were misleading - only realised after northern deposit was partly removed by mattock. Then trowelled. On surface seemed to be deposit of angular basalt - up to 100 mm long - with intermixed asbestos. However, 'modern' debris appears to have been only on surface. On western side this deposit, situated only in northernmost metre of the trench, was very shallow. In eastern side the basalt fragments were a deeper deposit which in part cleaned off to bedrock. In both eastern and central portions of this deposit a few basalt blocks were removed possibly damaging underlying stone features.

D 703 PIT

Visible as a darker patch in surrounding soil with small pieces of brick and mortar in it. Dimensions at 603 SECOND SCRAPE c.0.90 x 1.0 m in subrectangular shape though size and shape must be admitted to be open to readjustment. Noticeable particularly in that it takes longer to dry out.

In 605 FOURTH SCRAPE spit, pit finds were still kept but it vanished as soil mark to reveal piece of bedrock. This may account for soil mark throughout as bedrock does seem to have this effect.

Burnt rock  
Glass  
Asbestos NR  
Plaster NR  
Med and mod pottery  
Pot-tile  
Iron nail  
Cat no 78, decorated glass rod, ? 17th cent

At 604:

Rare animal bone NR  
Brick, some R  
Slate  
Daub  
Mortar  
Clay pipe stem NR  
Glass  
Iron nails  
2 frags pottery and modern pottery

At 605:

Slate NR  
Iron nail  
Fragment of pot  
Fragments of burnt

This would leave pit as a smaller brick bone NK  
and mortar fragment area.

D 704 WALL 1

Alignment of basalt blocks and one  
sandstone block first revealed with  
removal of 701. Very close to O.G.S.  
therefore. Planned at 602 and 603.  
Only one course.

D 705 PACKED STONE

Concentration of stone visible in 603  
SECOND SCRAPE as square setting on edge  
of general stone scatter. See 603 plan.  
705 stone more closely packed and larger  
giving impression of packed pit  
In 604 packed stone still visible and  
planned at that level. In 605 not  
discernible from general stone scatter.

D 706 DENSE BASALT FRAGMENTS

Area of small chips of basalt with  
little soil first noticed in perhaps  
602 and visible in 603, 604, and 605.  
In depth up to 400 mm at section.  
Faded out towards western section and  
never ran further S than c. 2.50 m.  
Apparently cleans off to bedrock and  
fills the clefts in the bedrock. Few  
finds from it. All incorporated in spit  
trays.

D 707 COMPACT STONE

Area of very dense compact medium sized  
basalt. Particularly noticeable in 605  
but a wider general distribution of such

stone had been noted in plan 604. The 605 stone was added in outline to 604 plan.

D 708 CONTINUATION OF 103

Basalt slate and sandstone rubble running out of 000 trench where it was curving in a bay of bedrock. In 600 it runs against bedrock c.400 mm in from edge and spreads slightly up 2 bedrock gullies. See 010 for its removal and finds.

D 709 STONE ALIGNMENT

Exposed in 604 as slightly curving line of stones c.1 m long with 2 fairly large basalt blocks. Drawn at this level. In 605 further large blocks were revealed under some of the smaller stones. These were added to 604 plan as far as could be done without removing 604 stones.

D 710 PIT?

Dark patch of soil, put on 604 plan. c.1.0 x 0.60 m bounded on 3 sides by bedrock. Photographed. Then dug as a pit is not in spits. Some finds thought to be from pit but questionable if really such by this low level. Fill darker than rest of surrounding gravel with few flecks of charcoal and burnt bone. May just be related to cleft in bedrock with water draining through.

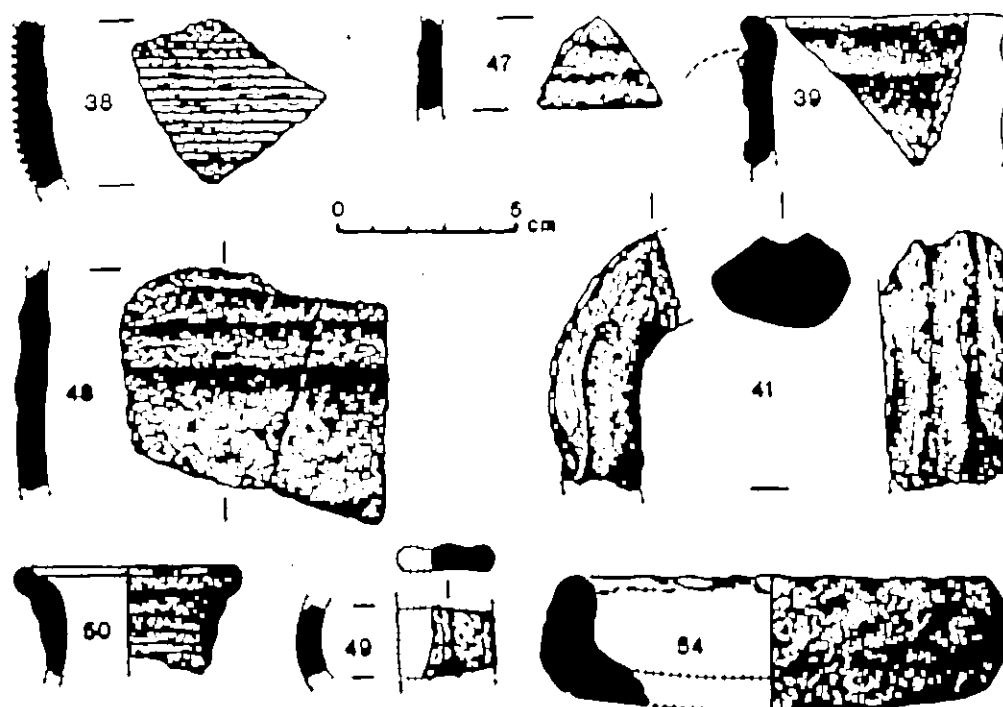
999 BACKFILL

Finds recovered during backfilling: Cat no 38, Bi shard from top of eastern tip, probably from 607

EARLY MEDIEVAL IMPORT WARES. (illus 35) (for the classification of these Thomas 1981; Peacock & Williams 1986)

**Class B amphorae**

These 12 sherds, in characteristic B1 and B11 fabrics, and with equally typical combing, grooving and ridging, probably represent a total of 11 amphorae. The B1 form is a relatively dumpy jar tending towards the globular, with narrow parallel grooving (so-called combing) on the upper half; for a good collection, see those from the Yassi Ada wreck in Bass (1982). A source in the Aegean seems likely. The B11 form is distinctly more cylindrical, and has a wide variety of ribbing and/or grooving, irregularly spaced from shoulder to base. For B11 a source in the NE Mediterranean, perhaps centred on Antioch, is thought likely. On the basis of Mediterranean chronologies, the period of importation into Britain and Ireland extends from the later fifth to the later sixth century.



ILLUS 35 Representative early medieval pottery & crucible. For details, see catalogue

37. AC/D 607, SF D 24. Bi body sherd, compact rust-brown fabric, fine multi-coloured grits, some mica. The vessel has been made up from overlapping slabs of clay, visible in section. The combing has rather square ridges.

38.\* AC/D 999. Bi body sherd in comparable fabric, throwing grooves on interior. Ridging markedly sharper than on no 37, showing that these are different amphorae. One only of the yellow inclusions common in B i occurs in no 38, and none in 37.

39.\* AC/D 607. Straight neck and slightly everted rim from Bii amphora. Compact orange-buff fabric, with fine multi-coloured grits, especially black; such grits are common to all the Bii sherds catalogued here. Pellets of clay on the exterior may mark the edge of the springing for one of the two handles.

40. AC/D 604. Slightly grooved Bii body sherd, in a fabric so similar to no 39 that it probably comes from the same vessel.

41.\* AC/D 607. Bii handle in orange fabric with buff core. Probably too soft to be the handle for no 39.

42. AC/D 204B. small, shallowly grooved Bii body sherd.

43. AC/D 208C. small shallowly grooved Bii body sherd.

44. AC/D 606. small Bii body sherd in fabric not unlike no 43, but with a more varied suite of grits, and hence from a different vessel.

45. AC/D 607. Grooved Bii body sherd in characteristic reddish-buff fabric.

46. AC/E 409, SF E 19. Small and badly weathered Bii body sherd.

47.\* AC/E 413. Bii body sherd in compact buff fabric with characteristic fine multi-coloured grits.

48.\* AC/E 609. Bii body sherd with shallow, widely-spaced ribs in an orange-buff fabric. The fabric appears soft and the sherd is badly abraded, perhaps because of deposition conditions.

#### Class E

Nos 49-52 are in characteristic E-ware fabrics; normally with pale buff or pinkish cores and self-coloured surfaces, often with traces of wiping. There are copious white quartz grits, rarely up to 4 mm, and also very rare red particles, usually described as grog. The quartz grits are only slightly rounded. It is important to stress the conformity with E-ware in terms of fabric, because the most determinate sherd, no 50, does not fit into the canon established by Thomas in 1939 (fig 43). It is probably from

a flagon with a tall, vertical neck, though this interpretation makes it difficult to explain the lid-ledge. If it is from a flagon, then the strap-handle fragment, no 49, may come from the same vessel, though colour differences weaken this interpretation; or it may be from a pitcher of Thomas class E 4. No 52 is certainly from a cooking pot with pronounced internal throwing grooves, Thomas E 1, and no 51 is probably from a similar vessel. The grits of no 53 differ from those in the other sherds, but none the less, the fabric is still closer to E-ware than to any later medieval pottery from the site. These four or five sherds come from a minimum of three E-ware vessels, but more probably represent a total of five.

The production centre of Class E has still to be established, though the region between the Loire and the Seine seems the most likely. Consequently, any attempt at a chronology is dependent on the site evidence in Britain and Ireland. To take it at its simplest: Warner suggests, on the basis of the stratification at Clogher, that the importation of Class E is later than that of Mediterranean red-slipped wares and the Class B amphorae (Warner 1986, 76); it may, however, overlap with D-ware. This argues for an initial date at the very end of the sixth century. A terminal date of AD 720 x 730 has been argued on the basis of the absence of E-ware from Middle Saxon *Hamwih* which was probably founded about that time (Hodges 1981, 44b-47a). This argument gives insufficient weight to the possibility that we are seeing a difference in patterns of trade rather than in date. There is indeed a case, based essentially on the historical references and radiometric age-estimates for Dunollie, for claiming that the importation of E-ware covered most of the seventh and eighth centuries (Alcock & Alcock 1987, 121-3 and 143).

49.\* AC/D 004. Fragment of strap handle, probably from an E 4 pitcher.

50.\* AC/D 205B. Neck and rim, probably from a flagon with a tall narrow neck.

51. AC/E 010, SF 2 12. Sherd with basal angle from an E 1 jar.

52. AC/D 999. Body sherd, probably from E 1 jar.

53. AC/A 028. Body sherd from a jar, in a fabric which superficially resembles E-ware. The grits, however, are smaller than those in nos 49-52; and more importantly, they are conspicuously rounded, so their geological origin is different from that of the grits in the other sherds. Despite this, an attribution to E-ware seems the most likely.

CRUCIBLES (illus 35)

54. AC/E 402. Rim and basal sherd from a flat bottomed crucible or hot-working tray, crudely fashioned in a pale pink or grey fabric. The surface has been wiped smooth, but the core is slightly porous, suggesting the weathering out of grits. A break clearly visible in the fractured edge reveals the bi-partite structure of the bowl. There are no signs of vitrification, whether internally or externally.

55. AC/E 014, SF 13. Less complete profile from a similar crucible or tray, in a fabric comparable with 54, but rather harder, and with a smooth buff slip. No traces of vitrification.

The best parallel for these is from Mote of Mark (Curle 1914, 157-60, fig 19), for which an early medieval date, perhaps in the 6th-8th cents would be appropriate (Longley 1982). Possible uses for such bowls or trays include: keeping a crucible warm; warming a mould before casting; or, with the aid of a blow-pipe, bringing glowing charcoal to a high temperature for fine metal-working such as soldering. Apart from the Mote of Mark examples, most other known trays are much smaller than these two (Craddock 1989, 181-8).

56-62 Other fragments of small thin-walled crucible bowls can also be matched with examples from sites of the fifth to ninth centuries, but are not sufficiently diagnostic to be cited here.

GLASS by John R. Hunter, University of Bradford

Catalogue

63. AC/B 001 Rim fragment 40 x 34 mm. Rim rounded, thickened and inclined slightly inwards. Rim thickness 2.5 - 3.0 mm. Decorated with horizontal applied trails commencing approximately 26 mm below lip. Dark opaque with surface lustre.

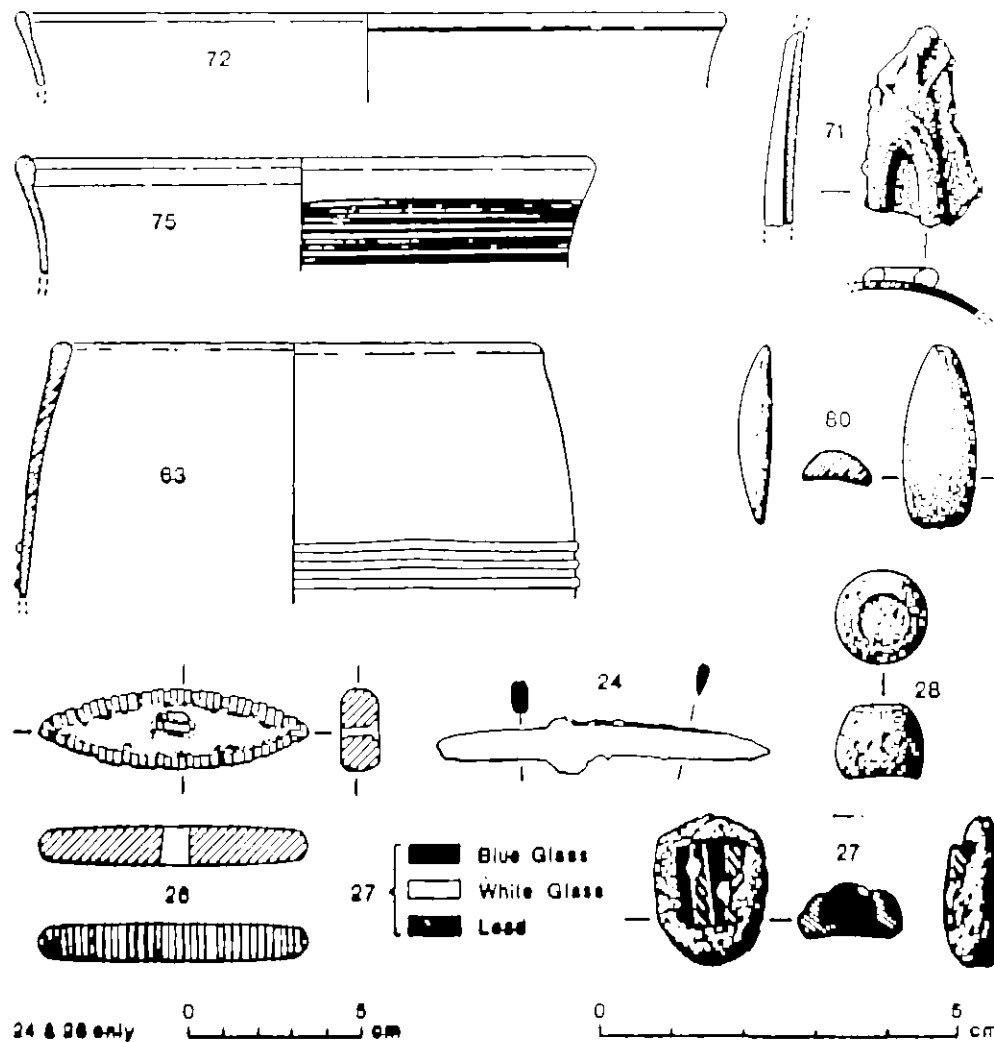
64. AC/B 004 Body fragment 35 x 18 x 1.5 mm. Mould blown decoration showing field of small undulations or bosses. Colourless.

65. AC/B 008 Body fragment 20 x 12 x 1.5 mm. Decorated with applied vertical trails. Dark opaque. Some heat distortion. Severely weathered.

66. AC/D 202 Body fragment 12 x 12 x 1 mm. Probably from upper body of vessel. Light green.

67. AC/D 204 Body fragment 16 x 7 x 1.5 mm. Bright yellow/green. See no 72.

68. AC/D 208C Body fragment 18 x 13 x 1 mm. Probably from upper body of vessel. Light green.
69. AC/D 602 Window glass 28 x 18 x 1 mm. Some elongated bubbles. No annealing or grozing marks. Colourless, virtually opaque.
70. AC/D 603, SF 8. Body fragment 12 x 6 x 1 mm. Decorated with mould-blown ribbing. Some pitting. Yellow/green.
- 71\*.AC/D 603, SF 9, Body fragment 28 x 17 x 1 mm. Decorated with applied trailing showing terminal of loop or lattice design. Trails contain streaking of white opacifier. Probably from conical vessel form. Possibly heat-distorted. Light yellow/green.
- 72\*.AC/D 603 Rim fragment 20 x 11 mm. Rim rounded, slightly thickened and out-splayed. Rim thickness 2.0 mm. Bright yellow/green. See no 67.



ILLUS 36 Representative early medieval finds of glass and metal. For details, see catalogue



73. AC/D 603 Body fragment 28 x 16 x 2 mm. Probably moulded vessel. Bright yellow/green.
74. AC/D 603 Body fragment 10 x 10 x 0.5 mm. Weathered. Colourless.
- 75\*.AC/D 607, SF 25 Rim fragment 19 x 18 mm. Rim rounded, thickened and slightly outplayed. Rim thickness 2.5 mm. Decorated with bands of horizontal opaque white marvered trails commencing approximately 7.5 mm below rim. Probably beaker form. Colourless.
76. AC/D 607 Body fragment 18 x 10 x 1.5 mm. Probably from lower body of rounded vessel. Light blue.
77. AC/D 701 Window glass 15 x 8 x 1.5 mm. Too small for comment. Weathered with some evidence of subjection to heat. Light green.
78. AC/D 702 Part of no 83 or possible waster. Twisted rod of length 23 mm and maximum diameter 3.5 mm. Probably part of decorated stem. Colourless with one end cut showing traces of blue blob.
79. AC/E 202, SF 11 Body fragment 21 x 17 x 1 mm. Probably from upper body of conical vessel. Some weathering. Colourless.
- 80\*.AC/E 402, SF 8 Mount. Elongated, pear-shaped plano-convex. Length 24.5 mm and maximum width 10 mm. Possibly split bead although no evidence of perforation. Dark brown.
- 81/1. AC/F 003 i Body fragment 35 x 23 x 2 mm. Evidence of moulded decoration. Light blue.
- 81/2. AC/F 003 ii (?)Window glass 25 x 18 x 1 mm. Light blue.
- 81/3. AC/F 003 iii Two body fragments, larger 36 x 33 x 2-3 mm. Mould blown vessel. Probably of bottle type. Dark green.
82. AC/B 010 Bead. Rounded oval in shape. Length 16 mm. Maximum width 7 mm. Diameter of perforation 1 mm.
83. AC/B 011 Body fragment 22 x 13 x 1 mm. Decorated with applied flattened reticella-type rods. Rods composed of twisted bands of fine spirals of opaque white glass. Four bands evident, of approximate width 6 mm. Probably from 17th century goblet or similar. See also no 76. Colourless.

#### Comments

This is a particularly varied assemblage which poses problems of both identification and interpretation. Catalogue nos 66, 68, 70, 71, 75, 76 and 80 appear to have visual metal characteristics appropriate to pre-

conquest glass. Three of these, 66, 68 and 76, are small, undecorated vessel fragments and leave little room for comment while 70, 71 and 75 all show useful features. No 70 exhibits indications of moulded, ribbed decoration characteristic of small 6th/7th century jars, while 71 and 75 both show trailing. On 71 this is the applied termination of a loop or lattice design and on 75 the trails are marvered below the rim. In both cases use is made of a white opacifier, a fairly typical 5th-7th century decorative technique. Later types tend to use opaque yellow decoration. The rim profile of 75 suggests a beaker form.

At least one remaining item may attest to working activity, a probable dark brown decorative mount (cat no 80). A colourless twisted rod with a small blue blob at one end (cat no 78) might also be included, although it might equally represent part of an ornate stem from the goblet form of no 83. The former is the only strongly coloured piece in this pre-conquest section.

These seven pieces (cat nos 66, 68, 70, 71, 75, 76 and 80) are perhaps best defined as 'germanic', in that the material can be interpreted as such from both metal and decoration. However, there are a number of other pieces which are difficult to place elsewhere and whose pre-conquest role cannot be excluded simply because they are 'non-germanic' in character. This group consists of catalogue nos 63, 64, 65, 67 and 72 of which 67 and 72 may belong to the same vessel. Both these two fragments exhibit surface brightness common to moulded vessels yet the rim form (72) is persuasively early, as indeed is that of no 63. The latter is from an opaque vessel which exhibits not only surface lustre but also horizontal trailing and an unusual inwardly-inclined rim profile. The metal itself seems durable. No 64 is also difficult to place; the nature of the moulded decoration being difficult to reconcile with the quality of the metal. The final item (65) is a non-durable piece with applied decoration; this might conceivably belong to the late pre-conquest period. The presence of high lead concentrations which might indicate a comparatively late date of manufacture was not detected among this group of samples.

The final group consists of those items which are ostensibly late (ie post-medieval). Nos 69, 74, 77 and 81/2 are almost certainly window fragments while 73, 79, and 81/1 and 81/3) belong to vessel forms. No 82

is a bead. The final piece (83), which might be described as a sophisticated version of early reticella types, is probably from a 17th century Venetian or Dutch goblet type; cat no 78, the twisted rod, may belong to the stem of the same vessel.

In conclusion, the total assemblage contains at least seven pieces which might belong to the 6th-7th centuries (66, 68, 70, 71, 75, 76 and 80). Of the other pieces, no 63 poses the greatest difficulty of interpretation and is the strongest contender for consideration as a further pre-conquest piece

I am grateful for the kind advice of Dr H Cool and Ms C Jackson in the preparation of this report.

#### CHRONOLOGY

#### RADIOMETRIC AGE-ESTIMATES

Three samples of oak charcoal, weighing between 30 and 78 gm each, were obtained from the burnt timbers of the rampart in cutting E, and were sent to the Palaeoecology Laboratory of Queen's University, Belfast for radiocarbon assay. Dr G W Pearson commented at the time that 'the quality of material was excellent and...there was no shortage either'. The original laboratory results were printed in Alcock 1976, 109-111, where they were given a somewhat elaborate statistical treatment before being calibrated to calendar years ('real time') according to the then best available calibration curve, that of Ralph, Michael and Han 1973, (the MASCA curve). Recently, Dr Pearson has kindly re-calibrated them for the present report in terms of the latest available calibration (Stuiver & Pearson 1986), and has used the opportunity to re-calculate the error terms which had been quoted originally. (Note that this departs from our original stated policy of using the Klein et al (1982) calibration consistently throughout the present series of excavation reports (Alcock, Alcock & Foster 1986, 260-1)).

The original figures, quoted at 1 standard deviation on the Libby half-life, are:

Lab Ref	Context	Sample	Date bp	$\delta^{13}C$
UB 2060	E 023/1	charcoal 73g	1465 ± 40	-24.1 ± 0.2
UB 2061	E 023/2	charcoal 38g	1410 ± 30	-24.1 ± 0.2
UB 2062	E 023/2	charcoal 78g	1295 ± 40	-24.4 ± 0.21

The newly calibrated figures, quoted at 1 and 2 standard deviations, are:

UB 2060	E 023/1	AD 550 - 640	450 - 660
UB 2061	E 023/2	AD 609 - 657	569 - 669
UB 2062	E 023/3	AD 664 - 775	650 - 858

Rightly considered, these figures give us the felling dates for the trees from which the rampart timbers had been cut. These in turn provide a basis for estimating the earliest possible date for the construction of the rampart. Dr Pearson has commented on the difference between the bracket for E 023/3 and those for the other two samples. Given the size of the original trees, as calculated by Dr Camilla Dickson from the curvature of the growth rings apparent in some of the larger pieces of timber, he suggests that these dates could all have come from a single tree, or from several trees all felled at the same time. In that case, E 203/3 would give the earliest date for the building of the rampart: not earlier than the mid- or later-seventh century AD, or as late as the later- eighth to mid-ninth century.

On the other hand, the difference between the E 203/3 bracket and those from the other two samples allows the possibility that it came from a tree which had been felled later. In that case, the rampart could have been constructed originally in the later-sixth century, (or as late as the

later-seventh); and then repaired, with the timber which provided sample E203/3, between the mid-seventh and mid-ninth centuries. From the constructional point of view, such a repair would certainly be feasible in a timber structure. Finally, Warner's statistical examination of the 'old-wood effect' (forthcoming) powerfully reinforces what was said above to the effect that the radiocarbon age-estimates provide the earliest possible dates for the building of the rampart. It is probable that the true age of the felling of the trees and the construction of the defence work on the eastern spur was some decades later than the younger end of the quoted date brackets.

#### CORRELATION OF HISTORICAL DATES WITH ARTEFACTUAL AND RADIOMETRIC AGE-ESTIMATES

In attempting to correlate the various classes of chronological evidence that are available for Clyde Rock, it is necessary to take account of the very different degrees of reliability - in terms both of precision and of chronological accuracy - of the several classes of data. These range through the highly inferential dates derived from artefact typologies, through the probabilistic figures derived from radiocarbon assays, to dates based on written sources. (For an early attempt at such a correlation for Clyde Rock, Alcock 1976). Among the written sources, it is further necessary to discriminate between contemporary records, especially in annalistic form, at one extreme of the spectrum; and at the other, literary statements first written down decades or centuries after the events they purport to describe, and representing at best uncertain traditions, at worst hagiographical or ideological inventions. (For an exemplar of such discriminatory exercises, Dunville 1987). These various levels of chronological reliability are rarely discussed explicitly; but in a historical period the differences between them are necessarily brought into sharp focus.

It is most convenient to examine the chronological data serially by centuries or groups of centuries.

**Pre-medieval: c 85 AD to fourth century:** the only material of this date is a small collection of Romano-British pottery, mostly high-class table-ware. The distribution of this, with a single exception, coincided with that of exotic pottery and glass of the sixth and seventh centuries. The pottery is regarded here as being 'reliquary', and therefore chronologically irrelevant. In social terms, however, it may denote a high status family, still conscious, in later centuries, of its Roman-period roots.

**Fifth century:** a possible early royal occupation of Clyde Rock may be suggested by the attribution to the site of that Coroticus whose soldiers had incurred the wrath of Saint Patrick by kidnapping his Irish converts. There is no supporting evidence from other sources or classes of evidence; and in particular it should be noticed that none of the glass would now attract so early a date. The attribution must be regarded as, at best, unreliable.

**Late-fifth and sixth centuries:** this is the chronological range of the Mediterranean amphorae (Class B). They were probably imported, especially from the E Mediterranean, intermittently over the period. On Dr Hunter's dating of the 'germanic' glass, some of this could also belong to this period; but it has been argued above that the glass forms part of the second trade nexus, in the seventh and eighth centuries.

The radiometric age-estimates could allow the earliest phase of tree-cutting and rampart building revealed in Cutting E to fall in the later-sixth century.

A royal presence on Clyde Rock is suggested, late in the sixth century, by Adomnan's reference to king Roderic, son of Tothail, 'who reigned on the Rock of Clyde'. This notice, recorded a century or so later, does not carry the weight of a contemporary annal; but it must be recognised that it is consistent with a reasonable social interpretation of the importation of Mediterranean wine to the Rock.

**Seventh and eighth centuries:** this is the period of the importation of Class E table-ware, probably from Gaul, extending from 600 AD or a little earlier, up to 720 x 730, and most probably for several decades after that. The exotic 'germanic' glass is best considered as belonging to the same period.

Iron knife blades, of characteristic 'Dark Age' form could belong in this period, or in the previous century.

If the timbered defence of the eastern spur is regarded as a work of two phases, then the most likely time for its initial construction would be in the seventh century, with a repair or refurbishment in the later-seventh century, or even as late as the later-ninth century. If on the other hand it is considered a unitary work - and there is no structural evidence which might enable us to decide between the alternatives - then an initial date in the mid-seventh to mid-ninth century is suggested by the radiocarbon evidence.

This is also the period when we have the first written evidence that is likely to be reliable: namely, the reference in the Annals of Ulster to the death of Guret, 'king of Ail Cluaithe', that is, Clyde Rock, in 658. Towards the end of the seventh century, in 694, the Annals of Tigernach record the death of Donald, Owen's son, who is likewise noted as king of Clyde Rock. So the Rock is firmly established as a seat of kings in the later seventh century.

In the eighth century we have the major contemporary witness of Bede's *Ecclesiastical history* for the existence, up to Bede's own day (*usque hodie*) of Clyde Rock as a town (*urbs Alcluith*) and as a strongly defended (or fortified) political centre of the Britons (*civitas Brettonum munitissima*). Bede can have had no first-hand knowledge of the character or status of Clyde Rock; but even without the evidence of archaeology and of the Annals, there is no call to question his testimony. No significance should be attached to the fact that he attributes the Rock to a people or nation, the Britons, rather than to a king, despite the contrast with his description of Bamburgh as a royal centre, *civitas regia*. The continuing royal presence at the Rock is attested by the Annals of Tigernach, which record the death of Teudubr, Bell's son, king of Clyde Rock, in 752.

Two further eighth-century mentions of the Rock are of dubious historicity or uncertain significance. In 756, the *Historia Regum* attributed to Symeon of Durham relates an attack by a joint Northumbrian and Pictish army on the town of Clyde Rock, *ad urbem Alcwith*. There are considerable problems about the use of Symeon for this period, though the form of the name *Alcwith* suggests an early date, and therefore a measure of reliability, for the notice. Secondly, in 779 (correctly 780), the

Ulster Annals have the stark record of the burning of Clyde Rock on January 1st.

**Ninth century:** the most significant evidence for this period is the Ulster Annal for 869 = 870 AD, which records that two Norse kings, Olaf and Ivar, besieged the citadel (*arce*) of Clyde Rock; and at the end of four months, destroyed and plundered it. The radiometric evidence would certainly allow the timber and rubble rampart on the eastern spur of The Beak to have been built before this date; and it is therefore very probable that its destruction by fire was a result of the Norse attack. The annal for the following year records the return of Olaf and Ivar from Scotland (*Alba*) to Dublin with 200 ships and a great booty of slaves.

Typologically, the iron pommel bar (cat no 26) should be considered Viking; and its recovery from feature E 204, a concentration of burnt and even vitrified stones, associates it with the destruction of 870 AD. The lead weight with an inset fragment from an Irish glass bangle (cat no 27) is certainly Hiberno-Norse in origin; but it is a superficial find, and cannot therefore be firmly associated with the Hiberno-Norse attack. Indeed, it is at least as likely to have reached Clyde Rock in the course of peaceful trade any time in the ninth century.

**Tenth-eleventh centuries:** although the name Clyde Rock as such disappears from the records after 870 AD, and it is reasonable to believe that the Hiberno-Norse destruction was followed by some centuries of abandonment, mention must be made of the fragments of two cross-slabs of 10th century date, reputedly found on the Rock sometime before 1958 (Appendix 3.) Despite the uncertainty of their provenance, these indicate a Christian presence in the 10th century in the Dumbarton area, if not actually on the Rock itself.

#### **CONCLUSION: CLYDE ROCK IN THE EARLY MIDDLE AGES**

Clyde Rock is a visually forbidding, and naturally defensible volcanic plug, which stands at the confluence of the rivers Clyde and Leven. These give access, inland to both north and south, and by the Firth of Clyde itself to the Irish Sea and, ultimately, to the Atlantic facade of Europe. The site was therefore well-fitted, by both morphology and location, to be a fortress, a seat of political power, and a harbour for both regional and



international trade. These attributes all played a part in the role of Clyde Rock in the early middle ages as the power centre of the British kingdom of Strathclyde.

That role is first reliably established in the sixth century, when the occurrence of fragments of Class B amphorae bear witness to a trade in wine with the Mediterranean, and especially with its eastern shores. That trade is only a fragment of the wider wine trade between the Mediterranean and both western Britain and southern Ireland: but however limited in scale and sporadic in occurrence it may have been at its northernmost reach, it still implies the existence of a source of effective demand at the head of the Firth of Clyde. Given the slightness of our knowledge of the social and economic structure of sixth century Strathclyde, it is never the less reasonable to believe that the effective demand was under royal control. A further hint of this in the later sixth century is given by Adomnan's account (written a century later), of Roderic son of Tothail 'who reigned on Clyde Rock', and about whom Columba made a prophecy.

By the seventh century, the Mediterranean wine trade had ceased, to be replaced by a trade with western Gaul of which the main evidence is the occurrence of table- and kitchen-ware of Class E, widely on sites in both Ireland and western Britain, and of glass vessels commonly in Britain but more rarely in Ireland. Clyde Rock received both the pottery and the glass, though the varied scale of excavation on different sites makes it impossible to compare the intensity of trade. It is very likely that wine in cask was also being imported from Gaul, as well as fine metalwork, which is known from several sites. Metalworking, probably making use of re-cycled glass, was also practised on the Rock at this time.

Assuming that the timber-and-rubble rampart on the eastern spur of the Rock was a work of two phases, then the radiometric age-estimates from the timbers would allow it to have been built originally in the seventh century, if not earlier. Given the overall forbidding appearance and craggy nature of the Rock, this artificial defence may have been specifically intended to guard the isthmus which linked the Rock to the mainland.

It is in the later seventh and eighth centuries that the political status of the Rock is most firmly established. Presumably contemporary annals recorded the death of men described as king of Clyde Rock in 658,

694 and 752. Moreover, Bede wrote of the site in 731 as *urbs Alcluith* and as *civitas Bretonum munitissima*. How these Latin terms should be understood is a matter which must be discussed in relation to the actual material remains on those sites to which Bede and his contemporary Eddius Stephanus applied them: in northern Britain, these would include Bamburgh, Dunbar, and *Giudi* (possibly Stirling). (Alcock 1986 b) The discussion must be tempered by doubts as to whether Bede had any first-hand knowledge of Clyde Rock.

Between the annal for 752 (death of Teudubr, son of Beli), and that recording the Hiberno-Norse siege, capture and spoliation in 870, Clyde Rock enters a shadowy period in terms of both written and material evidence. It is possible that the import of Class-E pottery continued until about 800; but an alternative view would see it ceasing by 720 x 730. If the rampart on the eastern spur was built in two phases, then the later one, perhaps a repair or refurbishment rather than a major build, might be as late as the later eighth century, or even the middle of the ninth. If, however, it was a work of one build, then these dates must be applied to the construction as a whole.

It is at least a reasonable inference from the determination with which Olaf and Ivar pursued their four-month siege that Clyde Rock was not only a very stubborn military objective, but a very desirable one as well. Given the events of the following year, when the two Norse kings returned to Dublin with 200 ships and a great booty of Anglian, British and Pictish slaves, we may conclude that the destruction of the Clyde Rock citadel had opened up the waterways of central and southern Scotland to a massive slave raid.

This marks the end of the history of Clyde Rock in the early middle ages.