

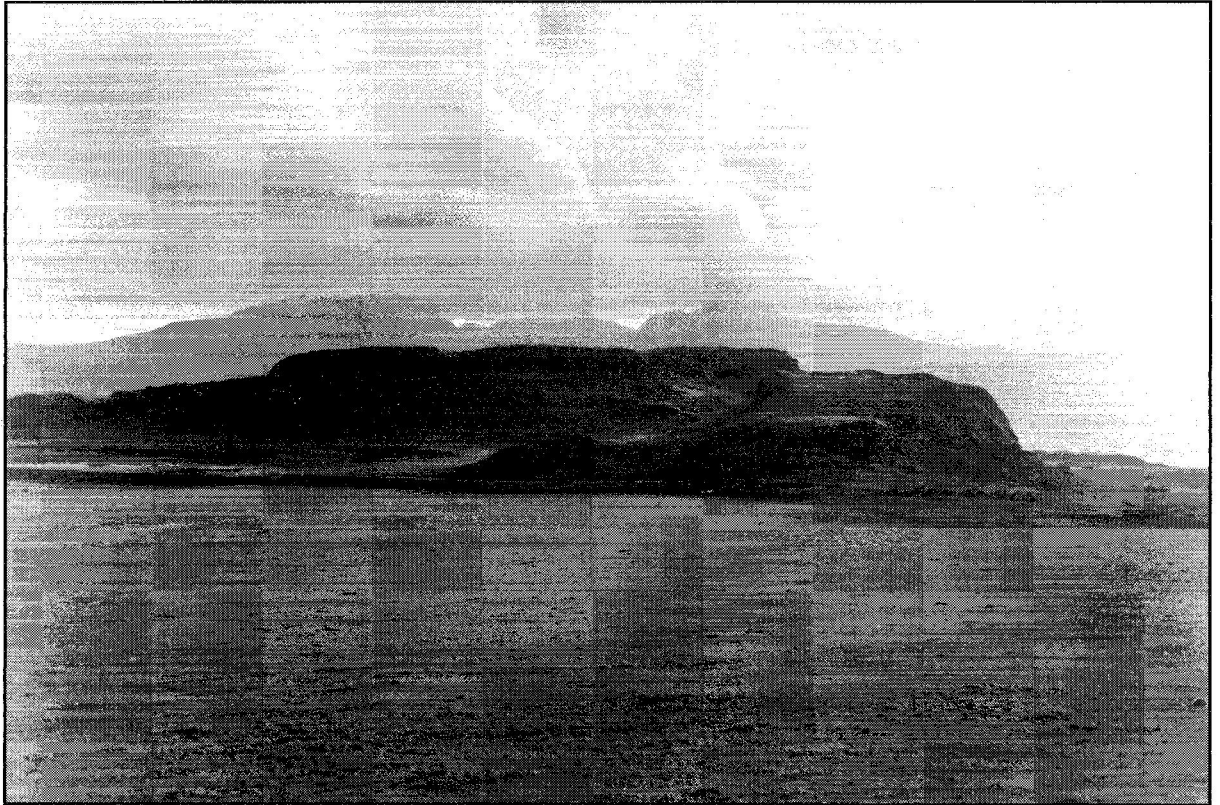


Plate 1: Dunagoil from the east



Plate 2: Outer gateway (g) south of vitrified fort



Plate 3: North-west face of vitrified fort.



Plate 4: North-west section of vitrified fort wall (a).



Plate 5: Wall on north side of postern gate of vitrified wall (c).

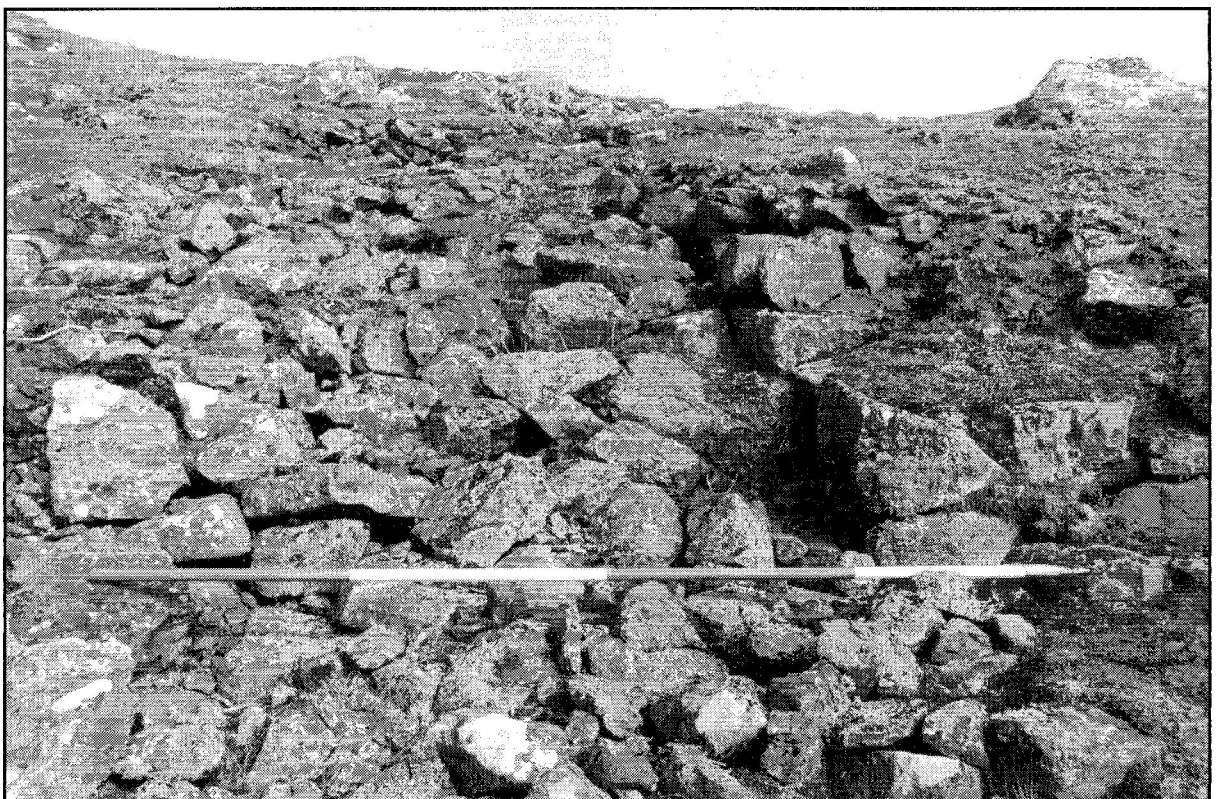


Plate 6: Entrance to vitrified fort on south-western wall (b).

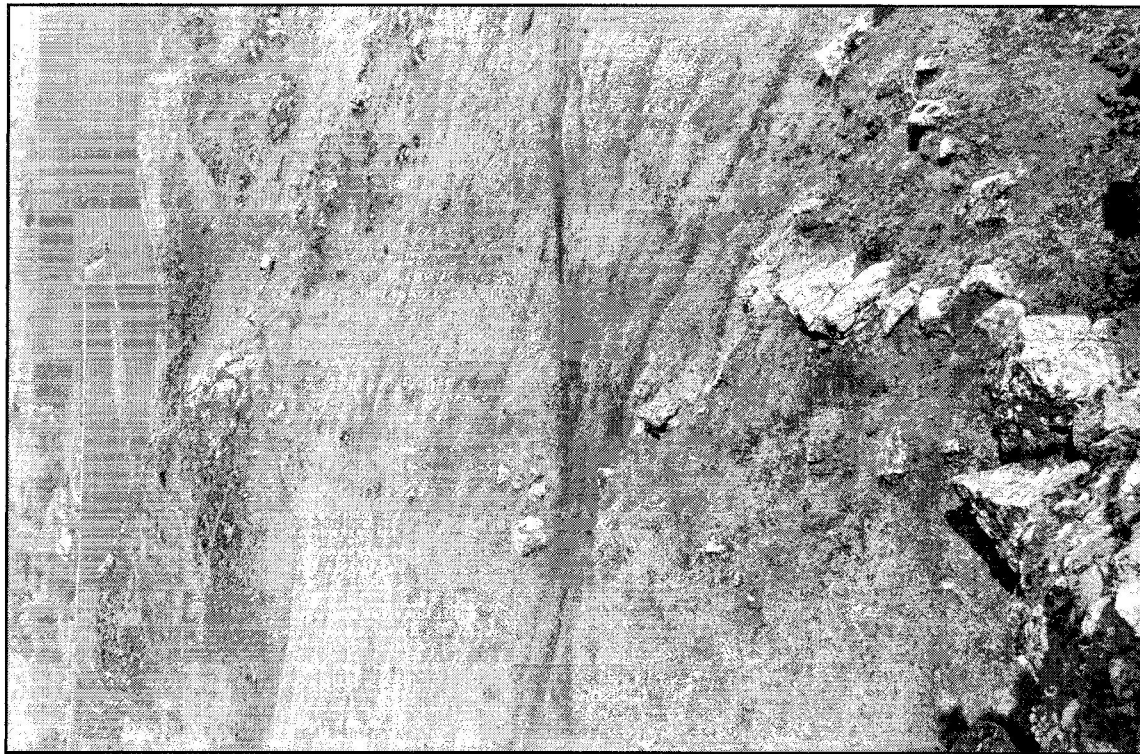


Plate 7: Wall across southern end of 'bailey' (m).

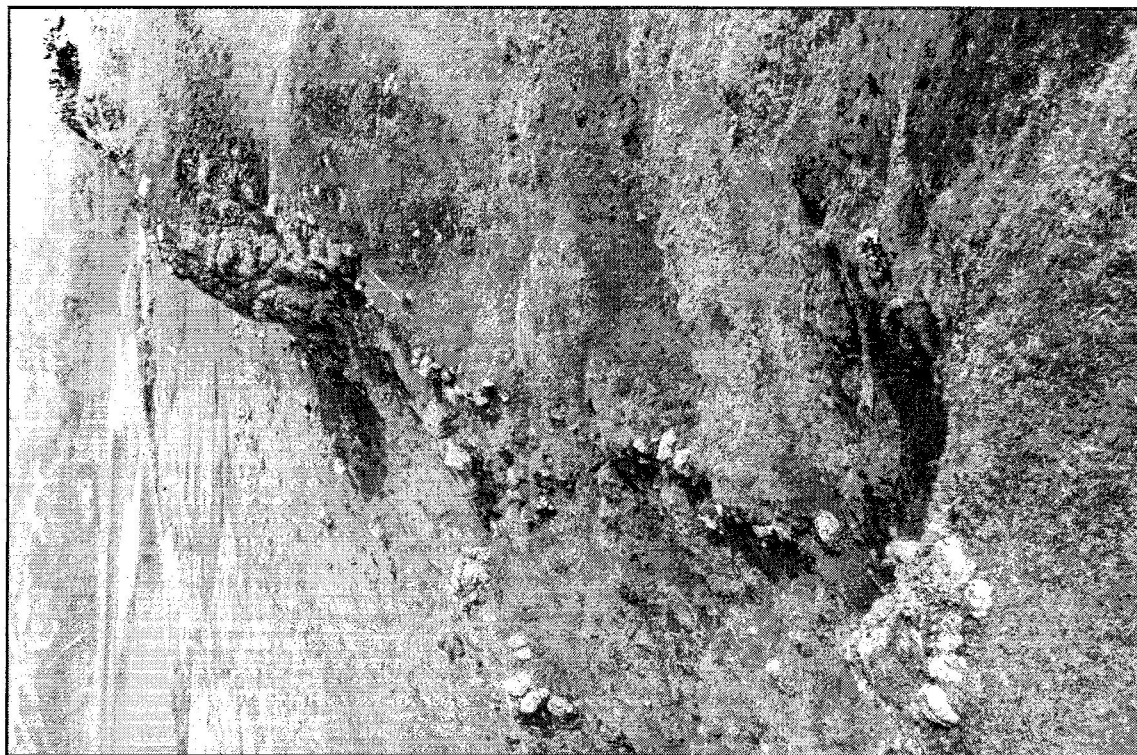


Plate 8: Wall at north-west end of 'bailey' (h).



Plate 9: Wall at south-east end of 'bailey' (k).



Plate 10: Defile below south-western side of vitrified fort, with secondary defile (q) to right.



Plate 11: Box made from an oak pile from Rothesay Castle. (See page 24)

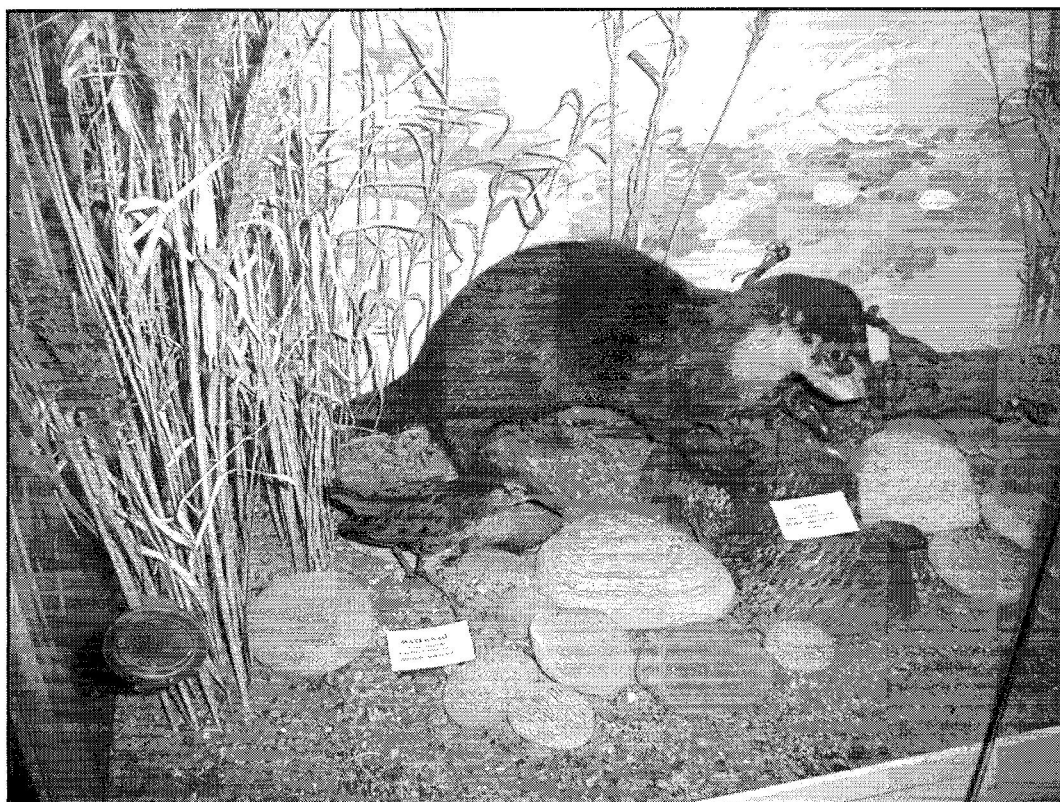


Plate 12: Otter and Water Rail recently acquired for Natural History room. (See page 26)

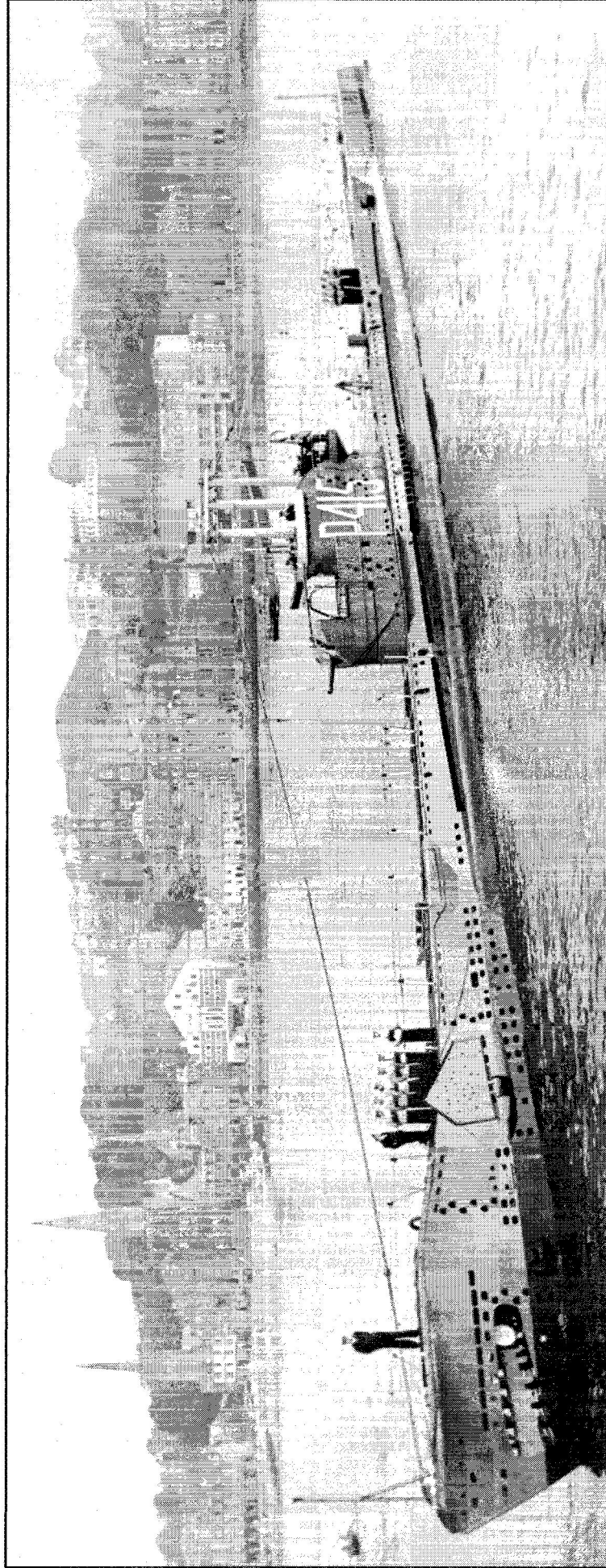


Plate 13: The naval presence in post-war Rothesay is well shown in this view of Argyle Street from the bay c1950, with H.M.S. Alcide in the foreground.
(See page 50)



Plate 14: Uncle Phil's Punch and Judy puppets. (See page 25)

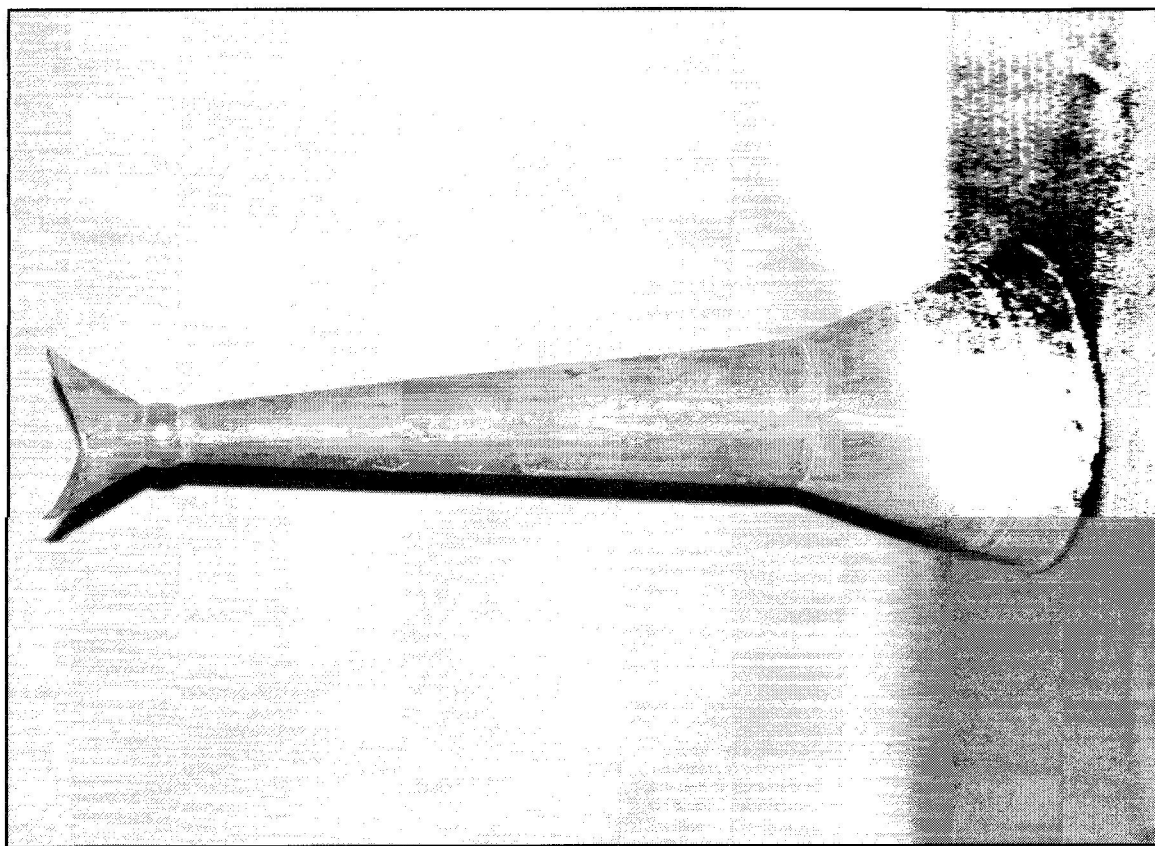


Plate 15: The Rothesay 'megaphone'. (See page 59)



At Ettrick Bay, I. of Bute.
Plate 16: Ettrick Bay, c.1900, showing a horse-drawn bus and the Chalet tea-room.
 (See page 22)

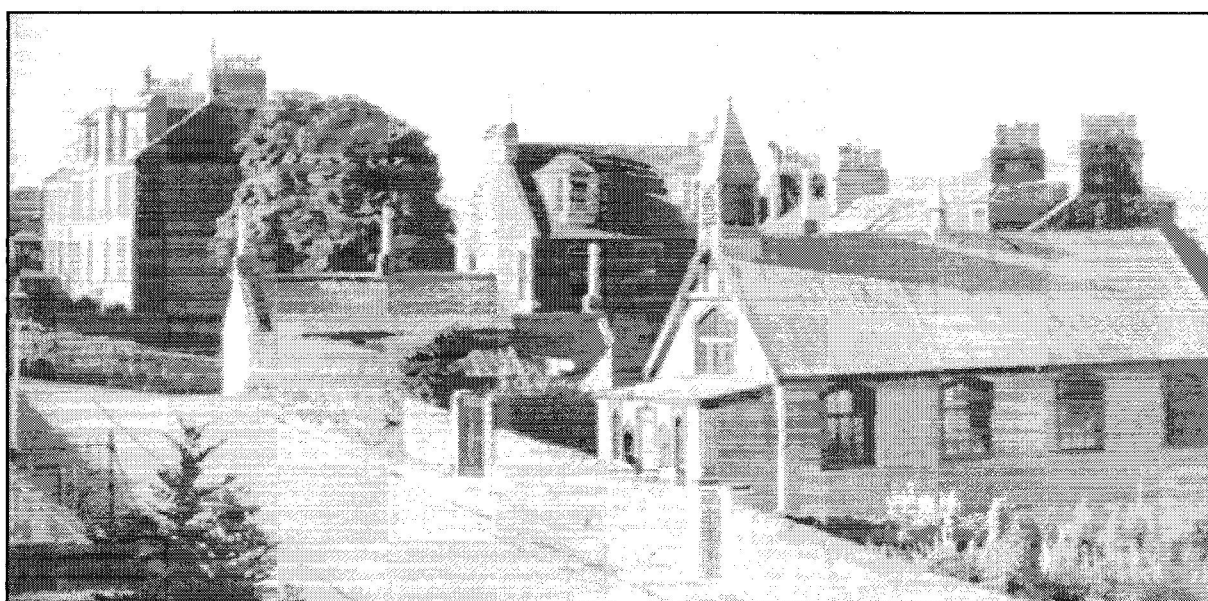


Plate 17: The former 'Tin Church' in Bellevue Road, home to a U.F. congregation. (See page 51)



Plate 18: Lexie Montgomery (second from left) with the archaeological team backfilling at Kildavanan, 2002. (See pages 27 and 125)



Plate 19: Lexie at work in the Library, cataloguing the recently acquired postcard collection. (See pages 22 and 125)

Dunagoil, Bute, re-instated

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A Paper presented to the Buteshire Natural History Society, Rothesay, 29 January, 2002

Dunagoil, on the southern tip of Bute in the Firth of Clyde, is one of the most important later prehistoric and early historic sites in Scotland. It includes a fine example of a vitrified fort, presumed to be of the pre-Roman Iron Age, and a small version of an early historic 'nuclear fort' located on a detached hill known as Little Dunagoil (Fig.1). These sites lie on the southern shore of the sheltered anchorage of Dunagoil Bay, and command an extensive seaward outlook across the Sound of Bute, westward to Arran and Kintyre beyond (Plate 1). Less than a mile to the south-east lies the church of St Blane's, where there was an important monastic site of Irish foundation at least by the sixth century. The importance of St Blane's is widely recognised, and has been the subject of recent re-investigation, but in spite of the rich assemblage of artefacts recovered from early excavations on the site of the vitrified fort, Dunagoil has ironically been overlooked in major syntheses of the British Iron Age, such as Barry Cunliffe's *Iron Age Communities in Britain*, (3rd ed. 1991) and even more regrettably in some surveys of Scottish archaeology.

The reason for this oversight is puzzling. The early discoveries, and even the post-war excavations at Little Dunagoil, were all published in the *Transactions of the Buteshire Natural History Society*, and the finds from the sites have been prominently displayed in the Bute Museum at Rothesay. Because of determinants based upon modern administrative boundaries, Bute was not included in the *Inventories* of Argyll, so thoroughly researched over forty years by the Royal Commission on the Ancient and Historical Monuments of Scotland, so that Dunagoil and its associated sites failed to gain recognition through this agency. The importance of the site has not failed to register, of course, with specialists in the field. Dr Euan MacKie underlined its wealth of finds in his synthesis of Scottish hillforts of 1976, a paper which first drew my own attention to this neglected site in the same year as my appointment to the Abercromby Chair of Archaeology in Edinburgh.

A further catalyst to the recent study was the existence of the Edinburgh University MA thesis of 1962 undertaken under the supervision of Professor Stuart Piggott by Miss Margaret Leechman (later Mrs Peek), who catalogued the extensive collection of artefacts from the vitrified fort (Leechman, 1962). Already by this time some of the material had deteriorated or was missing, and some further items drawn by Mrs Peek were no longer traceable by the early 1990s, so that hers remains an invaluable record. Through the good offices of the curator of the Bute Museum, Mrs Anne Speirs, however, I was able to examine all the surviving material from the Dunagoil complex, and to redraw a sample of that material to supplement the drawings made by Mrs Peek. The illustrations included here are not intended to be comprehensive, but they include a selection of the main categories of artefacts, drawn by myself from the originals or based on drawings by Mrs Peek, with her kind permission, and on some drawn by Dr Gordon Thomas.

Prompted by this re-examination of the Dunagoil assemblage, in 1994 I initiated a new survey of the sites and their environs. The survey itself was conducted by Christopher Burgess and Jon Henderson, supported in the field by myself and Professor Ian Ralston, with whom I also made subsequent field visits to discuss the results. This work was funded by the Munro Committee of the University of Edinburgh, and from funds assigned to me through the University of Edinburgh's Development Trust. The general site plan is based upon the results of the new

survey, which will be published in full elsewhere. This review therefore represents my own opinions, and does not necessarily reflect the views of the others who were involved in the new survey, and from discussions with whom I have benefited thereafter.

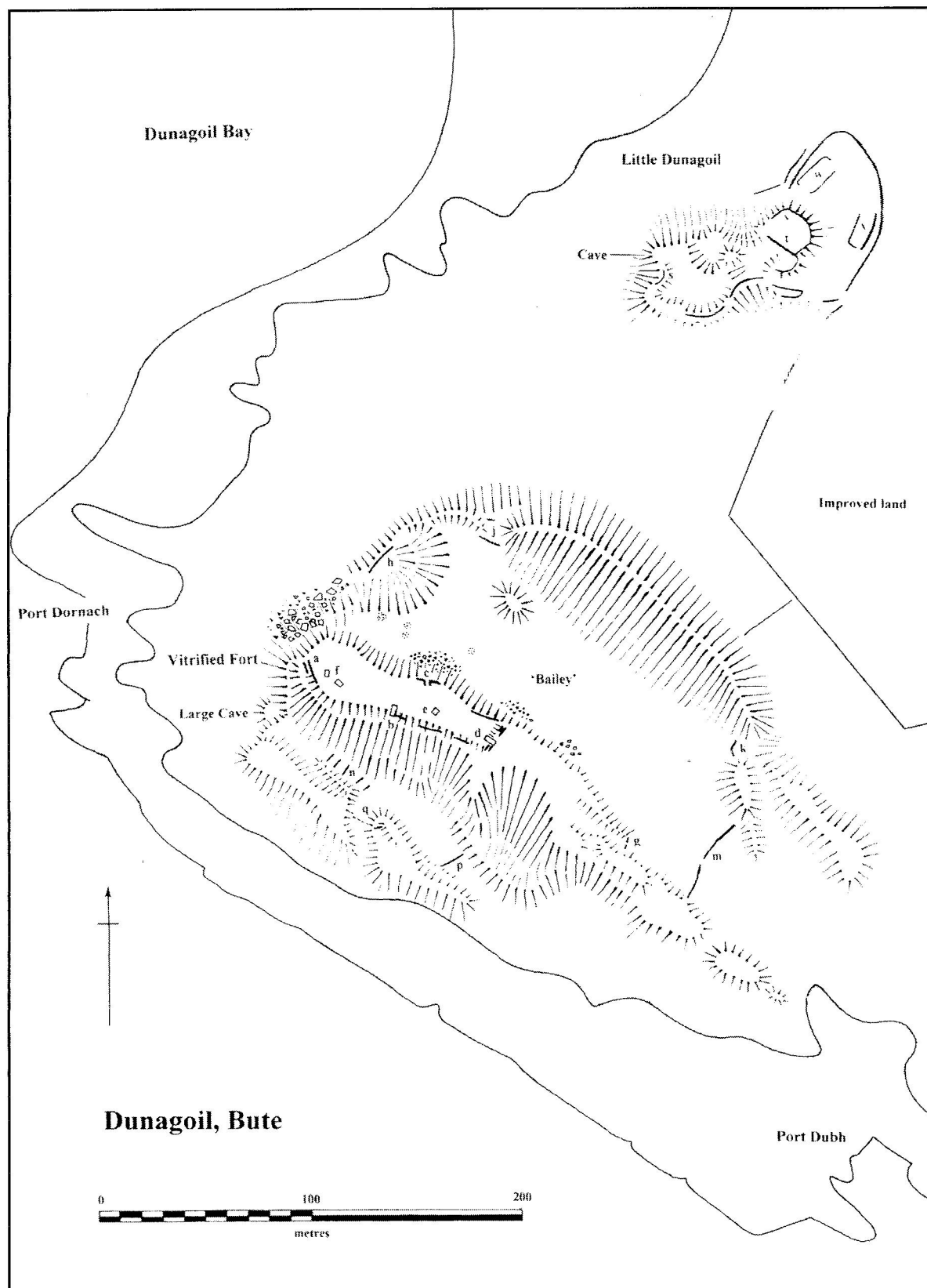


Fig. 1: Dunagoil, Bute: site plan.

Early Investigations at Dunagoil

Among the earliest descriptions of Dunagoil, Blain's account from the beginning of the nineteenth century, edited for publication by the Rev. William Ross in 1880, is among the most detailed, and evidently formed a basis of the later summaries by Hewison (1892; 1893). Blain was evidently also responsible for commissioning some excavation, notably of the cairns and related burials in the vicinity of the vitrified fort. Hewison made specific reference to the gateway through the long south-western wall of the fort, though he marked no entrances on his plan (Hewison, 1893, 56, plan facing p.54); he also remarked that 'a rich dark soil covers the crest, and in the scooped stances of former dwelling-places nettles grow in wild profusion' (Hewison, 1893, 57). Fuller excavations at Dunagoil fort and cave were initiated in the autumn of 1913 by J. N. Marshall, the local doctor and father of the late Dorothy Marshall, together with Ludovic Mann and Bruce Gardiner, then curator of the Bute Museum. Work in 1913 was restricted to the cave, but the following year they turned their attention to the vitrified fort above, opening two trial trenches in July and August of that year, until the outbreak of war evidently brought work to an abrupt halt. The potential of the site, in terms of its wealth of material remains, had been demonstrated, however, and Mann returned in 1919 to resume excavations. These results were published in 1925, but the account concentrates almost exclusively, with photographs, on the artefacts recovered rather than the structural evidence of occupation. Little Dunagoil was not seriously examined until Dorothy Marshall's excavations of 1958-61.

The Vitrified Fort

The vitrified enclosure at Dunagoil is an irregular rectangle on plan, its long axis, oriented north-west to south-east, attaining a little over ninety metres. At its north-western end the interior is at most twenty-five metres wide; to the south-east this is reduced to no more than fifteen metres. The total absence of plans showing the location of the excavated trenches, still less of any plans or section drawings of the structures exposed, makes any evaluation of the site's occupation, other than through the rich and diverse material assemblage, extremely difficult. Even accounts of the main defensive features of the fort lack clarity, and the use of the cardinal compass-points in describing features of a site, the axis of which lies north-west to south-east, sometimes leaves their true location in doubt, particularly when the same sector of rampart can be termed 'south' and 'south-east' alternately.

The absence of a fuller record is regrettable, since Mann evidently was not oblivious to the significance of stratigraphy, nor to the possibility that here was an important site potentially occupied over a thousand years and more. After the trial season on the vitrified fort in 1914, he anticipated that 'it might be possible to detect the different layers of occupation', but in the event his report of 1925 gives no such detail, and we are left only with Marshall's initial record that one of the trial trenches was four feet deep, and the second was described as 'deep'. In view of the fact that there are areas of exposed outcrop within the interior, the apparent depth of deposits is surprising, comprising 'rich brown loam' in which bone and shell was liberally distributed.

Two areas were apparently opened in 1914. One is reported by Marshall as measuring fourteen feet by six in the middle of the fort and near one end, a description which could match either of the areas of disturbance visible today within the interior (Fig.1, e, f). The second was on the east side of the fort where a deep trench exposed the transverse wall flanking an entrance which led to a cleft in the cliff-face. This description accords best with the entrance with flanking walls in the steep north-east long side of the fort (Fig.1, c), which, following Dorothy Marshall, I have termed the 'postern gate', and which looks towards Little Dunagoil beyond the intermediate ridge to the north-east. It could nonetheless refer to the disturbed area in the shorter south-east wall (Fig.1, d) which faces the path down the ridge to the outer gate (Fig.1, g), and which certainly affords the easiest access to the summit. Dorothy Marshall's field guide *Nature Trail No 4*, written in the late

1980s (Marshall, n.d.), refers to the 'main entrance at the south-west' as having been backfilled in 1919 to prevent erosion. Her account refers to bar holes in the flanking walls of this entrance, to which Mann's account also made generalised reference without specifying where he had found evidence of these (Mann, 1925, 60); if reliable, this would imply that the flanking walls survived to several courses in height. Dorothy Marshall's location of this entrance (Marshall, n.d., plan, p.5, 11), however, appears to displace the excavated area around the corner of the long, south-western wall of the fort, adding further to an already confusing account.

The transverse wall flanking the entrance J. N. Marshall had likened to a similar feature in an entrance on the 'south side' (as opposed to the north-west corner, where the best section of vitrified wall survived) of the 'west or seaward' wall of the fort. This is presumably the still-visible entrance in the longer, south-west wall (Fig.1, b), since he describes it as leading down to a cleft from which an expert climber might descend to the cave. Significantly he describes it as 'now filled up with loose stone' in that part of his account that describes the site prior to his own investigations: 'there is nothing new in the above description'. Plainly a wall-face through the rubble was visible then as it is now; perhaps Blain was also responsible for exposing this entrance, though he seemingly made no such claim himself (Ross, 1880).

Mann's first account of the artefactual finds also refers to two areas, Site 1, which is said to be the 'larger and sea-ward section of the fort' and Site 2, whose location is not specified (Mann, 1915, 69). He then remarks that very little was done to explore Site 1, except the digging of a trial pit to discover the depth of the soil, which implies that Sites 1 and 2 were sub-divisions within the fort rather than actual trenches. Site 1 evidently produced very little except for a few bone artefacts. Site 2, on the other hand, produced a rich assemblage of stone, bone, clay, glass, lignite and bronze, so that the artefactual wealth of the site is not necessarily distributed evenly across its area. Site 2 also revealed structural evidence of industrial activity in the form of a flue-like feature of edge-set stones with a slab capping, five feet in length and partly filled with ash and charcoal (Mann, 1915, 83).

The 1919 excavations uncovered more evidence of industrial activities. Mann singled out two sites for comment; one is described as 'a place where bronze implements, weapons and other ornaments were cast', the other as a place where 'an iron-smith had his workshop', as was indicated by the 'relics in and around the furnace or bloomery' (Mann, 1925, 58). Whether either of these sites was the same as, or an extension of, that previously opened in 1914 is unconfirmed, but it seems probable that the renewed campaign would have continued the earlier.

Evidence for internal habitation derives almost entirely from the artefactual assemblage. Though daub was identified as indicating wattled huts (Mann, 1915, 78), no structural plans were recognised, any more than would be expected of excavation at this time. The defences, on the other hand, did attract the investigators' interest. Mann clearly sectioned the wall at some point (possibly at Fig.1, d), since he describes it as some twelve feet thick and having an inner and outer face with rubble core. He also adds a cursory comment to the effect that later in its occupation the fort was extended to the east (south-east), where the vitrified walling 'covered some of the old kitchen midden' (Mann, 1925, 60), an episode which Dorothy Marshall's account (1992, 29) amplifies as covering a refuse-heap that had accumulated outside the old gateway. No obvious evidence of this extension is visible on the ground today, and later commentators (Leechman, 1962; Farish, 1980) seem to have confused this alleged secondary extension with Marshall's earlier reference to the secondary incorporation of vitrified material into the transverse wall of the gateway that led to the cleft in the cliff, turning this into a cross-wall which reduced the size of the fort. This confusion would account for why OS surveyors were unable to trace this later cross-wall in 1976 (NMR).

Much of this is hard to equate with surface remains on the site today. Apart from the entrance

in the south-west, long wall, which was evidently already open in Mann's time, and the intrusion into the western end of the short, south-east wall, there are two or three possible candidates within the interior for Mann's trenches. There is a disturbance roughly in the centre of the fort west of an area of outcrop and immediately south of the axis between the south-west entrance and the postern gate (Fig.1, e). This is closest to the point marked '12' on Dorothy Marshall's *Nature Trail* plan, which she claims in that guide was where the bronze and iron smelting took place (Marshall, n.d., 10). There is also evidence of two possible areas of disturbance towards the north end of the fort's interior, again west of the outcropping rock (Fig.1, f). If these visible disturbances coincide with Mann's trenches, then the scale of operations was really quite limited, yet the quantity of material finds would be consistent with more extensive excavation. Clearly the depth of deposits is considerable, though not all areas seem to have been uniformly productive.

The Caves

Dunagoil cave lies beneath and just beyond the north-western corner of the vitrified fort. It has a depth of twenty metres and ends in a gallery nearly six metres high. Marshall and Mann investigated the occupation at its entrance in 1913, where they found a midden nearly two metres thick in places, which tailed off into the interior, giving out some seven or eight metres from the mouth of the cave. There is today a marked platform at the mouth of the cave, but whether this is ancient midden material or spoil from the early excavations is not altogether clear. No obvious stratigraphy was observed within the midden, except for 'carbonaceous material' that 'was so abundant as almost to form a layer'. Slabs of sandstone were interpreted as a hearth. The finds from the midden were regarded as broadly contemporary with the fort. Marshall indicates that earlier deposits were sought, but not found; Mann agreed with the dating of the finds, but insisted that the lowest levels in the cave had not been reached.

A smaller cave, over five metres deep and two metres high, below the west end of Little Dunagoil was excavated as part of Dorothy Marshall's campaign in the late fifties. In the records there appears to be some confusion regarding the location of this cave, but Marshall's (1964) account is quite explicit. Again middens and hearths were found, but little by way of dateable artefacts, so that the site could have been intermittently in use over a long period of successive occupation of the adjacent forts.

Little Dunagoil

The excavations at Little Dunagoil were prompted by the site's resemblance on a smaller scale to the nuclear forts of the Dunadd class, and by its proximity to the monastic settlement at St Blane's. In spite of quite extensive excavation, little by way of structural evidence was found for the occupation of the hill. The defensive walling leading to the summit at its south-west end was sectioned (Fig.1, r), and the remains of a revetment wall between two areas of outcrop at the extreme end of the ridge was examined (Fig.1, s), in the course of which several fragments of a two-piece Late Bronze Age axe-mould were recovered. On a slightly lower plateau immediately north of the summit, an area-excavation exposed cobbling, paving, some postholes and occupational debris, but no clear pattern of structures. At the north-east end of the hill, separated by a well-defined cross-wall in which there was no obvious entrance (Fig.1, t), further area-excavation revealed very little evidence of occupation, and this enclosure was therefore interpreted as a cattle compound, to which access was gained from a possible entrance-way just south-east of the cross-wall. Finally, a length of dyke to the north-east enclosed two rectangular long-houses (Fig.1, w, x), which were shown to have been occupied in the twelfth or thirteenth centuries AD.

Miscellaneous

Among other sites in the vicinity, the field clearance cairns to the south-east of the site are still clear, as are the cairns of similar appearance below the vitrified fort on its north-east side, perhaps

investigated by Blain. The burial chamber between the main complex and Little Dunagoil remains much as described in the NMR; a second possible example lies a few metres to the north. The cup-marked stone to the east of Little Dunagoil, such as it is, remains as located in the NMR.

The New Survey

The principal conclusion as a result of the new survey is that the defended circuit at Dunagoil was not limited to the vitrified fort, isolated on its precipitate ridge, but that this citadel was part of a larger enclosed area embracing at least the secondary ridge to the east, and the lower 'bailey' between the two, and involving further elements on the seaward side of the citadel ridge. The basis of this inference is that it makes better sense of the fort in relation to the surrounding topography and the surrounding archaeological features. The evidence for it is that there is vitrification of walls that form part of this outer network of structures, some of which includes vitrification of *in situ* outcrop, and which therefore cannot have been the product of re-use of earlier vitrified material. To assume that the defensive walls of the citadel marked the outer limit of settlement is an error which archaeologists have made too frequently in the past when studying hillforts, and in this instance has fundamentally prejudiced our understanding of the Dunagoil complex in later prehistory. Ironically, this conclusion is not entirely original. Nearly two centuries earlier Blain had written that the bailey was 'fortified at each end', and he further implies recognition of additional elements of fortification in the ravine below the south-western, seaward wall of the vitrified fort (Ross, 1880, 75-6). Plainly later activity has complicated the picture, and doubtless obscured the original layout, so that we can only guess that Little Dunagoil might also have been integral to the defended area from the Late Bronze Age and Early Iron Age.

This re-interpretation has the merit of explaining the apparently anomalous relationship between the fort and the parallel ridge to the east, on which there are no surviving traces of archaeological features. The north-east face of this ridge is extremely precipitous, and would require no defensive reinforcement. Nonetheless, unless it was incorporated within the overall defensive circuit, it would have afforded cover for an assailant approaching the site from the north-east. In fact the land to the north-east has evidently been drained and improved in early modern times, and it seems probable that access in antiquity from the landward side to the Dunagoil complex would have been restricted to a relatively narrow ridge of marginally higher ground to the north-east of Little Dunagoil. Thus isolated, it would have been natural for the 'peninsula' to be treated as a defensive whole. Access from the sea would have been from the anchorage of Dunagoil Bay, but when prevailing winds were adverse, the lesser Port Dubh would have permitted landing by the southern end of the site. This maximal view of Dunagoil also makes more sense of the outer gate south of the main vitrified citadel (Fig. 1, g; Plate 2), which otherwise stands in isolation beyond the defensive perimeter. This re-interpretation of the Dunagoil complex suggests that it was more than just a locally-prominent hillfort, that it was a major regional centre commensurate with the exceptional nature of its artefactual assemblage.

A second major contention is that the vitrified fort itself was originally surrounded by a continuous defensive wall, parts of which, along the precipitous north-east and north-west sectors have eroded over the cliff-edge. Hardly necessary as a defensive measure, this would have been essential for the protection of occupants, as field surveyors working in gale-force winds readily appreciated. It would doubtless also have enhanced the status of the citadel as the prestigious focus of the settlement. Below the cliff-edges fragments of vitrified debris can still be found. In the north-west face in particular, massive blocks of basalt are still breaking away from the cliff (Plate 3), and the effect is not unlike the 'Fallen Rocks' of Arran (Gerrard, 1990, 179-80; I am obliged to Prof. I. Ralston for drawing this reference to my attention, which some have attributed to an earthquake. One noteworthy feature of the perimeter wall was visible in

its best-preserved section at the north-west end of the site (Fig.1, a; Plate 4). Here, a metre or so beyond the upstanding vitrified core are the unvitified stones of the outer wall-face, reinforcing Mann's observation that the outer and inner wall-faces were fused to the vitrified core but themselves showed no trace of vitrification.

It is perhaps appropriate in the light of this to comment briefly upon the nature of vitrification in Iron Age defensive enclosures. For many years vitrification was regarded as an ingenious and uniquely Scottish device for consolidating defensive walls, despite the fact that figures as eminent as Joseph Anderson in the 1880s and Gordon Childe in the 1930s had argued the contrary. Modern scholarly opinion no longer subscribes to this view, regarding it rather as a destructive act inflicted after a fort's capture. Several reasons prompt this view, as Dr MacKie (1976) convincingly argued. First, vitrification is seldom more than very partial, so that its application as a construction technique would have to be regarded as highly inefficient. Second, it has the effect of distorting the rampart rather than consolidating it. Thirdly, on numerous sites the vitrified debris is found over a considerable depth of occupational deposits, so that the burning is plainly secondary and not primary. And finally, unburnt, that is, unvitified timber-framed ramparts are known, in Scotland and elsewhere in Britain and Europe, which doubtless represent the normal condition of vitrified forts before destruction.

There remains, however, the question of how vitrification came about, if not as a deliberate constructional technique. Accidental firing should not be ruled out altogether, especially on a site where industrial activity was an important element, but probably does not explain the massive burning of the citadel walls. As a means of attacking a hillfort, firing the walls, as opposed to the gates of an entrance, makes little sense in a Scottish context. It hardly takes much imagination to visualise the misery of trying to set light to the walls of Dunagoil in the pouring rain whilst under defensive fire, and even without the resistance of defenders experimental attempts at firing of a timber-laced wall at East Tullos in Aberdeenshire some years ago proved just how difficult the task would have been (Ralston, 1986). The most plausible conclusion must be, therefore, that the firing took place *after* the capture of the fort, perhaps in part as an attempt to prevent its re-use, but more probably as a determined and vindictive act of repression, the rising pall of smoke signalling for miles around the subjugation of the local power whose citadel this had been. In these circumstances the destruction of Dunagoil as a major regional centre plainly must have been an event of considerable political significance, and one which needs to be defined chronologically with much closer accuracy than current estimates might permit.

Of the remaining enclosure walls and entrances, particularly clear in the new survey were the inturning ('transverse') walls, several courses high, on either side of the postern gate above the cleft in the rock-face on the north-east side of the fort (Fig.1, c; Plate 5). To gain ready access from the 'bailey', this entrance must have required structural support, presumably timber steps for which no evidence survives in the rock-face. Along the south-western wall, the main entrance alluded to by Marshall and possibly exposed by Blain remains as it was described, with both outer wall face and the inturning wall flanking the entrance clearly visible (Fig.1, b; Plate 6).

Between the vitrified fort and the parallel ridge to the east, the lower 'bailey' shows clear evidence of Mediaeval or later cultivation, which stops short of the foot of the cliff on the fort's north-east side, where several cairns may be the result of clearance, or could even be the burials investigated by Blain. What is significant, however, is that, wherever access could be gained to the 'bailey,' lengths of wall footings span the breaks between naturally outcropping rock. Where the entrances to this larger enclosure were located cannot be confirmed without excavation; the most likely locations, however, are the north-east corner, giving access to the slightly higher ridge along which the site is most easily approached today, and from the south, from the direction of the Port Dubh. At the north-west end of the 'bailey' a length of walling

(Fig.1, h; Plate 7), which incorporates sections of natural outcrop, shows clear signs of vitrification affecting the outcrop itself, so that this cannot be explained as vitrified material reused in later construction. This observation was first made by Christopher Burgess and Jon Henderson during the survey, and their conclusions were subsequently endorsed by myself and Ian Ralston. The implication seems clear, that the outer works should be regarded as integral to the later prehistoric layout. The next adjacent gap likewise has a turf-covered bank blocking access from below (Fig.1, j), with possibly a stone wall or revetted outcrop below, the alignment of which then continues up the spine of the secondary ridge. At the south-eastern end of the 'bailey' the picture is more complicated. Here, across a gap giving access to the east, a length of wall (Fig.1, k; Plate 9) shows no sign of vitrification, and appears to be essentially core material including several very substantial laid boulders, from which the face has perhaps been lost. Eleven metres eastwards beyond this point, however, a further piece of vitrified debris was discovered by Ian Ralston on a subsequent visit to the site with me. The most obvious feature at the southern end of the 'bailey' is a wall which extends across the full width of the area (Fig.1, m; Plate 8); an apparent entrance through it may be a modern break, and indeed its construction and its relationship to the end of the ridge to the west suggests that this wall may be of later date than the prehistoric complex. Beyond this wall, towards the inlet, a series of low features, certainly not storm beaches from their angled alignment, could mark the entrance to the enclosed circuit on its south-eastern extremity from Port Dubh.

To the south-west of the vitrified fort is a narrow defile, flanked to its south-west by further outcrop and the sea beyond. Within this defile there is a great deal of vitrified material, which must be the product of tumble from the destruction of the fort above. In several places, cross-walls span the defile (Fig.1, n,p), but these could easily be later and are not necessarily evidence that the prehistoric complex was protected by a series of barriers against access from the sea. The depth of debris in the defile is in any case considerable, and any original barrier could easily have been obscured. On the seaward side, however, flanking a secondary defile, a short length of walling (Fig.1, q; Plate 10) between outcrop again displayed evidence of *in situ* vitrification. In the secondary defile itself stony rubble may mark the position of a further barrier. The implication therefore is that this seaward side of the fort too was part of the defensive complex.

The new survey of Little Dunagoil provided some supplementary data to the plan published by Miss Marshall. The structures on the upper plateau are much as published, though suffering some erosion. On the lower plateau, however, in area C, the published plan shows intermittent enclosure walling only, where the new survey suggested a near-continuous surviving circuit (Fig.1, v) and further lengths of revetment adjacent to the presumed entrance on the south-east side of the fort (Fig.1, y). At one point there is a suggestion once again of vitrified material, but whether *in situ* or re-deposited is not entirely clear without further investigation. The nature of the external wall below the fort at the eastern end, which enclosed the two later long-houses, remains somewhat equivocal, particularly in respect to its relationship to the old head dyke south of the nuclear fort. Long-house E and adjacent features were largely obliterated ten years ago or more for agricultural access.

Artefacts and Chronology

This is not the place for a full review of the very rich and diverse artefactual assemblage from the Dunagoil complex, but it is appropriate to review particularly those objects and categories of material which might bear upon an assessment of the chronology of the site's origins and occupation.

The earliest evidence for human activity in the Dunagoil complex is represented by possible Mesolithic debris from the main cave, where Neolithic material was also present. Unquestionably indicative of a Late Bronze Age episode of activity are the finds of axe mould fragments from Little Dunagoil. During Dorothy Marshall's excavations several fragments of a

two-piece mould were found among the stone-work of wall AA on the upper plateau, Site A (Marshall, 1964, 11, Pl. 4, 9.1 and appendix 1), which was for casting a type of axe distinguished by its widely-splayed blade and triple rib-and-dot ornament (Fig.2, 1). The type is related to the Sompting series of southern Britain, and Colin Burgess (Schmidt and Burgess, 1981) described the Dunagoil example as a Roseberry Topping variant. The chronological context seems to be late in the Ewart Park phase, presumptively now in the ninth century BC rather than much later (Needham *et al.*, 1997). Finds of late Bronze Age types are comparatively rare on settlement sites in Scotland, and examples from Traprain and Jarlshof serve to underline the potential status of the Dunagoil complex from at least the later Bronze Age. Reports of a mould fragment from Dunagoil itself seem unconfirmed. Coles' inventory (1960, 37 and 89) seems to attribute to Dunagoil one of the fragments published from Little Dunagoil (Marshall, 1964, Pl.9.1). A reference to 'a Late Bronze Age stone mould' in the NMR summary of Marshall's 1913-15 excavations equally does not appear to be sustained by the excavator's account, though Mann (1925, 59) does allude to bone artefacts as plugs used in the casting of socketed bronze tools. Dorothy Marshall thought in terms of an itinerant metal-smith (1964, 55; 1992, 29), a view which had been popularised by Childe, but in view of the presence of metal-working evidence from the later periods of occupation, there is no reason to discount the possibility that the site included bronze-working among its industries from the later Bronze Age.

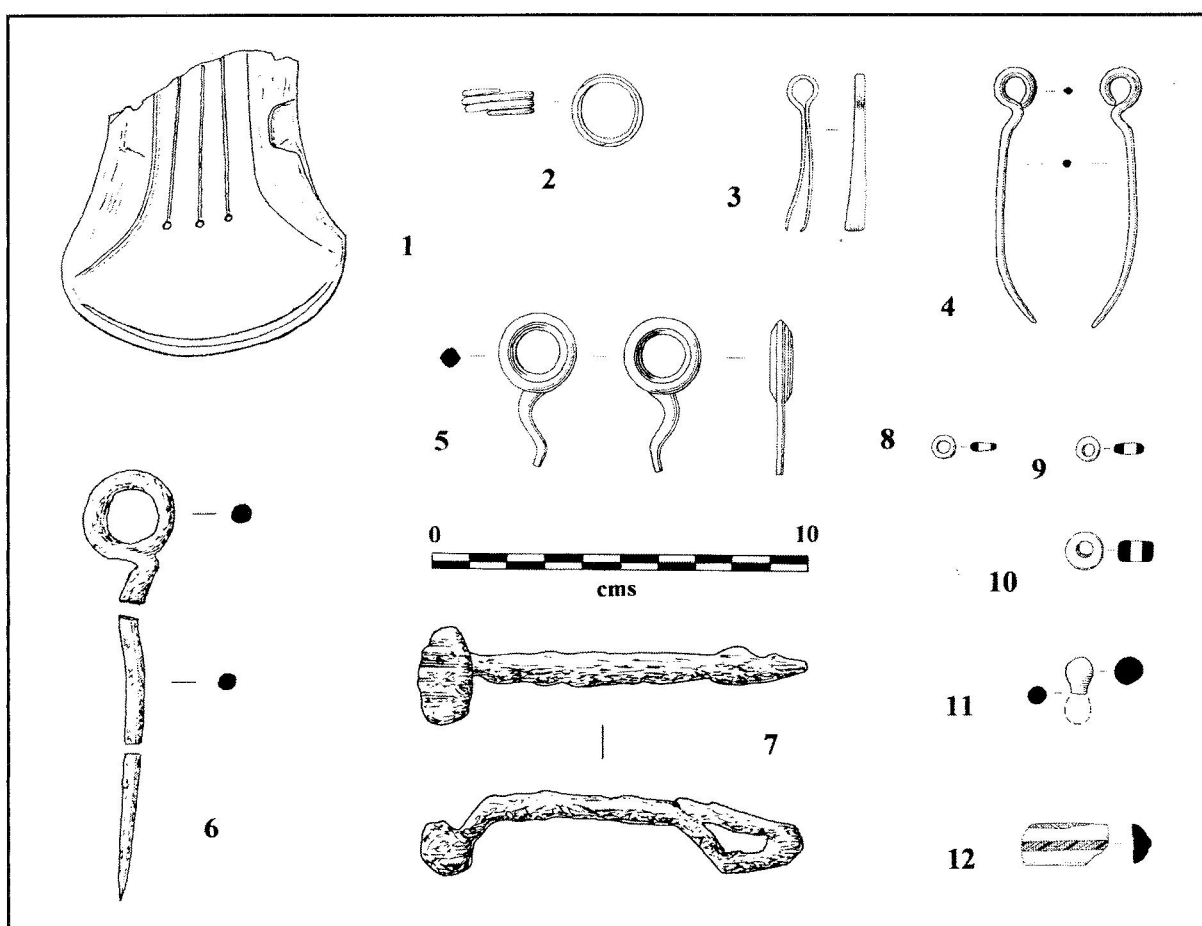


Fig.2: Metalwork and other small artefacts.

An activity which is certainly represented on an industrial scale at Dunagoil is the manufacture of lignite bracelets, rings and pendants, which doubtless were being produced over a prolonged period from the quantities of fragments recovered (Fig.5 for selection only). Though the poor quality of local deposits may have necessitated the import of raw material from the mainland

(Marshall, 1992, 28), the existence of waste cores and unfinished products indicates local finishing of rough-outs if not local manufacture. All appear to be hand-made rather than lathe-turned, and could date from the later Bronze Age through the Iron Age occupation. They include circular, oval, triangular and D-shaped cross-sections, but also some with sub-triangular and especially flattened, sub-triangular profiles. Bracelets of lignite, jet or shale became fashionable in the later Bronze Age, and are represented in the Heathery Burn and Coverclough caves as well as on settlement sites from Runnymede Bridge in the south to Staple Howe in Scarborough in Yorkshire in association with Late Bronze Age bronzes. In so far as cross-section might be indicative of date, the sub-triangular form seems to occur from the late Bronze Age; at the later end of the chronological spectrum examples with grooved and spiral decoration should probably be assigned to the early centuries AD, rather than much earlier.

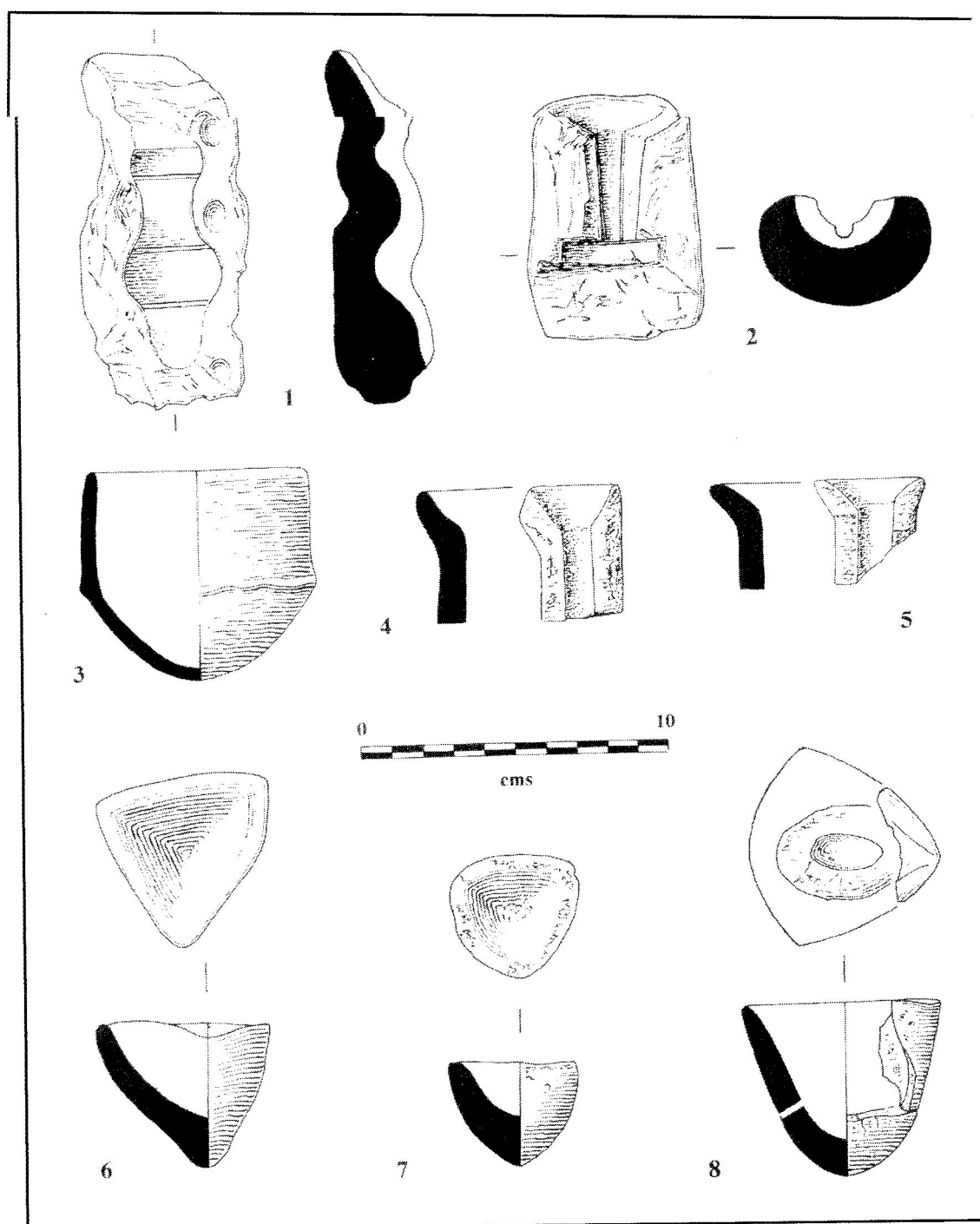


Fig. 3: Mould fragments and crucibles.

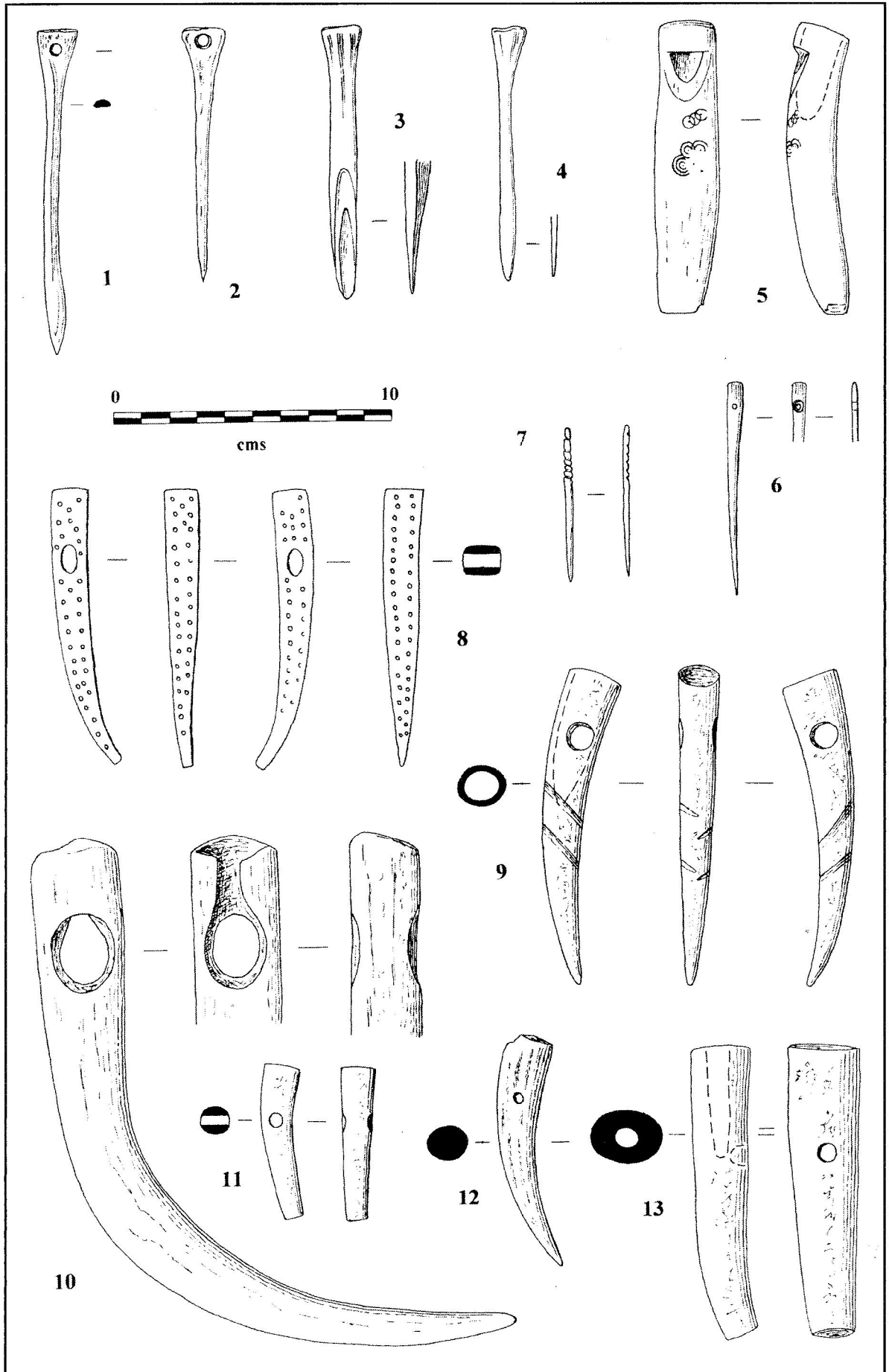


Fig. 4: Antler and bone.

A major problem in identifying a Late Bronze Age occupation is that older conventional classifications of the period were defined by industrial phases and bronze types derived largely from hoards, rather than on the basis of dated domestic assemblages. One non-bronze type of Late Bronze Age origin which has been claimed for Dunagoil is the antler cheek-piece, a type first recognised among the Swiss lake-dwellings by Robert Munro (1890, 524-6 and fig.191) and subsequently discussed by Canon Greenwell in relation to Heathery Burn (1894, 108-9). An attempt at typological classification was offered in the Glastonbury report (Bulleid and Gray, 1917, 440ff and fig.155), and a modern re-appraisal was offered by Britnell (1976). The key issue of identification relates to the number of perforations in the cheek-piece, which ideally should be three, one centrally to anchor the mouthpiece and the reins, and one at each end to attach the cheek-straps. None of the Dunagoil examples of perforated antler artefacts (Fig.4, 8-13) has more than one perforation, and this not centrally but at the broader end of the tine. Admittedly, not all of the Glastonbury pieces have three perforations; some have two, and one variant has just one, again at the broader end. Whilst it is conceivable that attachments could have been made by loops rather than through perforations, the simple alternative explanation would be that these were for various domestic implements, some perhaps knife handles, rather than harness equipment. The one example from Dunagoil for which this explanation does not seem appropriate is the tine with solid squared cross-section and all-over dotted decoration (Fig.4, 8), which is certainly not a handle, but not conclusively a cheek-piece either. It may simply have been an ornamental pendant. The continental associations of the antler cheek-pieces are late Urnfield from the Carpathians westward, where they represent the immediate antecedent of Hallstatt C bronze horse-gear, so that if the Dunagoil examples were indeed cheek-pieces they would belong to a final Bronze Age cultural horizon.

By way of a postscript to this trawl for Later Bronze Age material it might be added that Dunagoil also produced one other type which, though hardly chronologically diagnostic, also occurs in a number of 'Ewart Park domestic assemblages', namely bronze tweezers, discussed by Needham in relation to Runnymede Bridge (Longley and Needham, 1980, 20) and by Coombs for the Breiddin in North Wales (Musson, 1991, 135). The Dunagoil example (Fig.2, 3) does not have quite as pronounced incurving terminals as some, but is otherwise comparable to those from later Bronze Age contexts. The form nonetheless has a long currency, and is far from diagnostic of the Late Bronze Age. Indeed, Hunter (1998) has argued that tweezers did not appear in Scotland before the Roman period. Like other potentially earlier Iron Age types, the existence of Roman associations and absence, by nature of the assemblages, of diagnostically pre-Roman associations prejudices the evidence in favour of a minimalist chronology. The Dunagoil example could easily be relatively late, but its apparent manufacture from tin-bronze does not yet preclude an earlier date (Heald, forthcoming).

Among types which have been regarded as diagnostic of the Early Iron Age, ring-headed pins are represented at Dunagoil by two complete and possibly two more fragmentary examples of iron, and two of bronze or copper alloys (Fig.2, 4-6). The iron examples had corroded or disintegrated by the time Leechman studied the group in 1962, and little can be said about their form in detail. Of the bronze or copper alloy pins, one has a cast ring-head which is not nearly as solid, in its proportions of ring-to-perforation, as in Dunning's drawing (1934, Fig. 7, 6), nor as broad in profile as the heavier example from Traprain Law with solid, unperforated ring, with which it has been compared. Furthermore, its faint ornamental dotting is hardly as distinctive as milled edging, such as that on the Traprain pin, and may not be chronologically definitive. The copper alloy pin is of simpler bent-wire form, which is also matched by the iron ring-headed pins from the site. Both varieties can be compared to English ring-headed pins of the two principal types, wire and cast, where on the basis of form alone they would not require a date later than the middle pre-Roman Iron Age, though it is possible that they continued to be produced in Atlantic Scotland into the early first millennium AD.

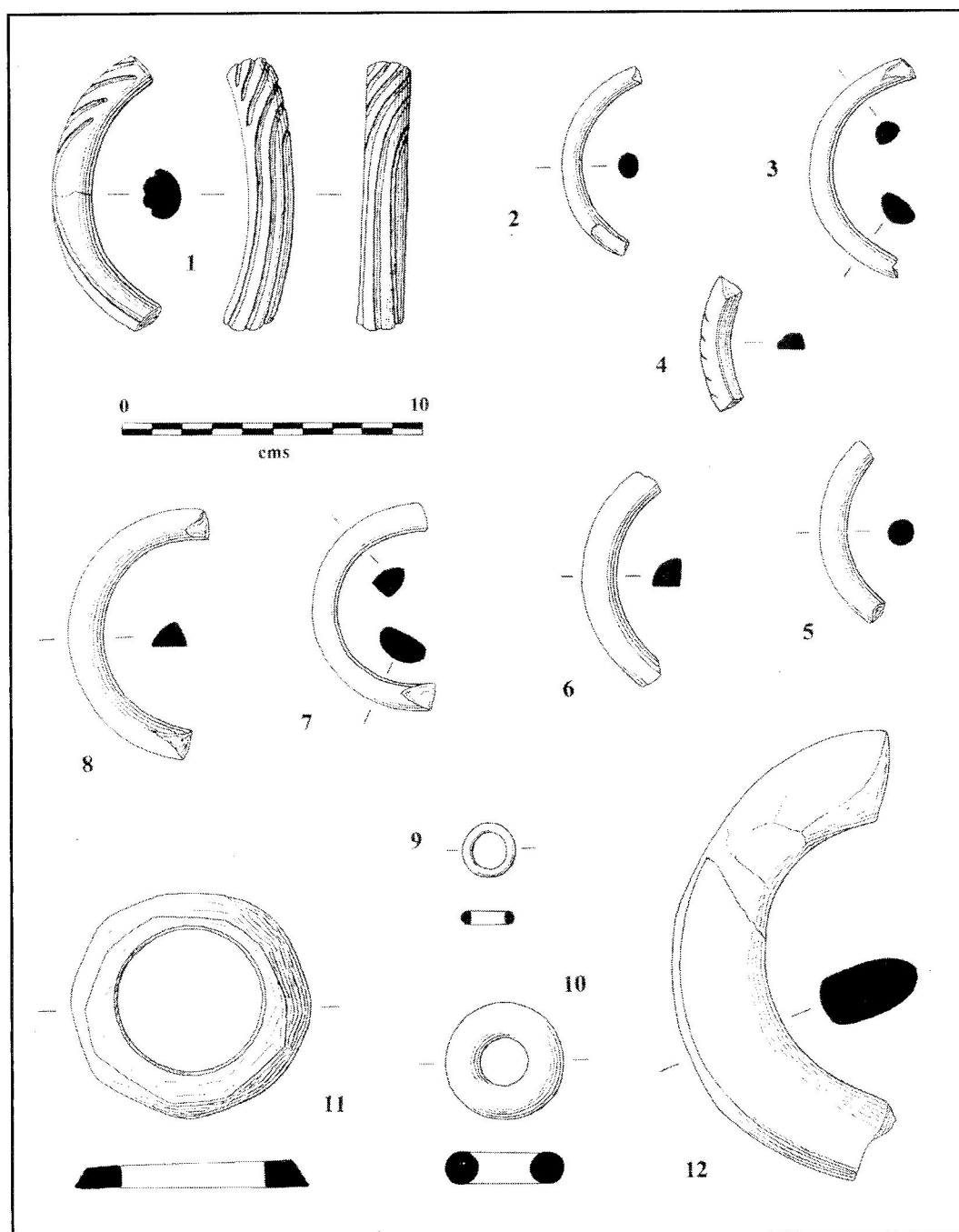


Fig. 5: Lignite and jet bracelets and rings.

More exotic in Bute, the single La Tène iron brooch from the site (Fig.2, 7) was described by Childe in 1935 as 'hopelessly corroded, but probably La Tène II in type' (1935, 231). Ten years later he appeared to have revised that identification to La Tène 1c (1945, 129), thus corresponding more closely with the currency of the brooches from Abernethy and Rahoy, an identification of the Dunagoil brooch in which Wheeler concurred (1943, 269). The object had disintegrated by 1962, but from Mann's published photograph (Mann, 1925, Pls 43, 44; RCAHMS archive C21878-9) it certainly appears as if the sloping foot originally rested upon the bow, rather than being cast in one with it, which would indeed make it a flat-bowed La Tène 1c brooch. As an indication of dating, of course, its value is limited as an exotic import, but its currency in southern Britain might have been around the third century BC or even marginally earlier. Hawkes (Hull and Hawkes, 1987, 130) regarded the slanting foot as indicative of a dating no later than 250 BC. His tentative identification from drawings and

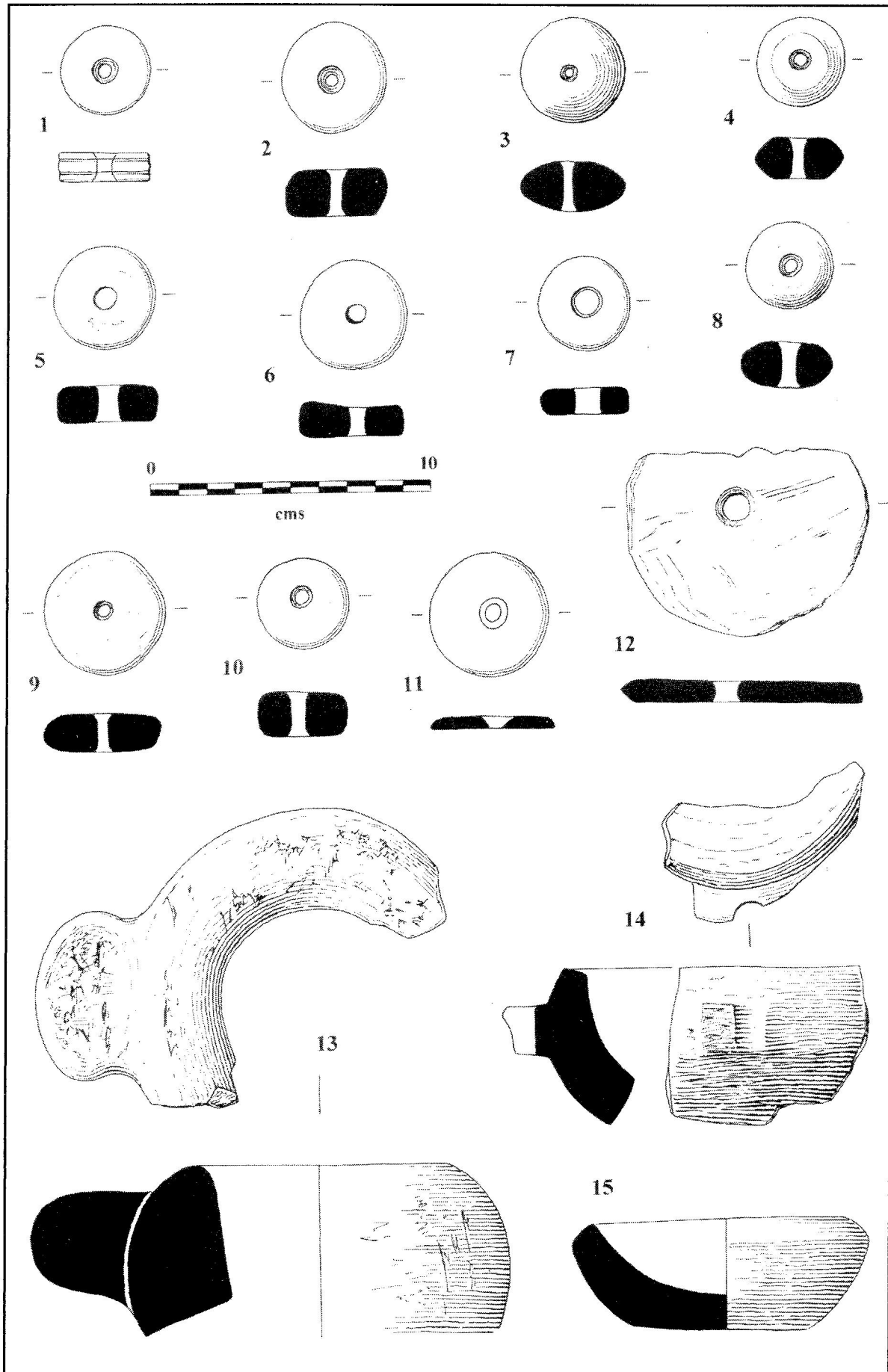


Fig. 6: Spindle-whorls, discs and stone vessels.

photographs of the corroded artefact, itself since disintegrated, of its spring as being possibly a mock- spring hinge, however, seems to be without sound foundation.

One indication of Later Bronze Age or Early Iron Age occupation at Dunagoil is the presence of saddle querns, as well as later rotary querns. The so-called 'quern transition' (Caulfield, 1977; 1978) from saddle to rotary is generally ascribed to the second century BC or thereabouts in Atlantic Scotland, and whilst we might question how co-terminous chronologically was the transition to rotary technology from region to region, it is generally supposed to have been a fairly radical and comprehensive change. Leechman catalogued three saddle querns and four rotary stones that she believed were from Dunagoil, though there is some question over their identification. Mann certainly referred to saddle querns from the site, and Childe (1935, 223) claimed that saddle-querns predominated at Dunagoil. So, notwithstanding possible questions over their identification among the surviving collections, there is no doubt that saddle querns were found at Dunagoil, though perhaps not in the numbers known from Duntroon. This would therefore endorse the belief that the site was in occupation from Late Bronze Age and through the Early Iron Age, even if other finds are more appropriately dated to the Middle Iron Age and the early first millennium AD.

The bronze spiral ring (Fig.2, 2) has sometimes been regarded controversially as a type indicative of contacts with southern Britain in the Early and Middle Iron Ages (MacKie, 1971; Clarke, 1971; Lane, 1987). Unfortunately its chronological currency extends from the Middle Bronze Age to post-Roman times, and as yet there is no basis for close dating or cultural attribution of the type, though in this instance the use of a gunmetal alloy almost certainly indicates contact with Roman technology (Heald, forthcoming). Likewise blue glass beads (Fig.2, 8-10) are not closely dateable, though they could well derive from an Early Iron Age occupation. The dumb-bell shaped bead (Fig.2, 11), on the other hand, on the basis of Scottish and Irish parallels, is more likely to belong to the opening centuries of the first millennium AD than earlier. Activity in the early first millennium AD is equally attested by the fragment of glass bangle of Kilbride-Jones/Stevenson type 2, assigned by them a date of manufacture around the second century AD (Stevenson, 1956, 219; here Fig.2, 12 after Stevenson).

Amongst the metalworking evidence for the Iron Age occupation of Dunagoil, the mould fragments of spear-butts (Fig.3, 1,2) have excited a good deal of interest, again evoking comparison with Traprain Law. Unusually, both Lisnacrogher and door-knob types appear to be represented, which conventionally have been regarded as distinctively Irish, even though the only known moulds, indicative of production itself, are from Scotland. Current research by Andrew Heald (2001) and others may contribute to a better understanding of the regional origins and chronology of these enigmatic artefacts, which have now been recognised on later Roman settlements in Southern Britain. On the evidence of recent discoveries in west Lewis door-knob spearbutts were apparently in production there from as late as the third or fifth centuries AD, overlapping in currency bronze hand-pins, considerably later than the turn of millennia dating to which they have generally been assigned in Ireland. It may be that the two variants could prove to be consecutive rather than concurrent, but if so the presence of both at Dunagoil would further underline the longevity of industrial production on the site.

One class of artefact which stands curiously at odds with this image of a high-status settlement is the pottery from Dunagoil (Fig.7), perhaps the crudest, thickest, most coarsely-made and poorly-fired wares from any prehistoric site in Scotland. Among coarse pottery, 'Dunagoil ware' represents the nadir of ceramic achievement, and one is bound to ask why, since it is inconceivable that a community capable of considerable sophistication in its defensive architecture and material culture otherwise should have been incapable of producing or acquiring finer ceramics. In fact, as was pointed out in discussion at the lecture, Bronze Age

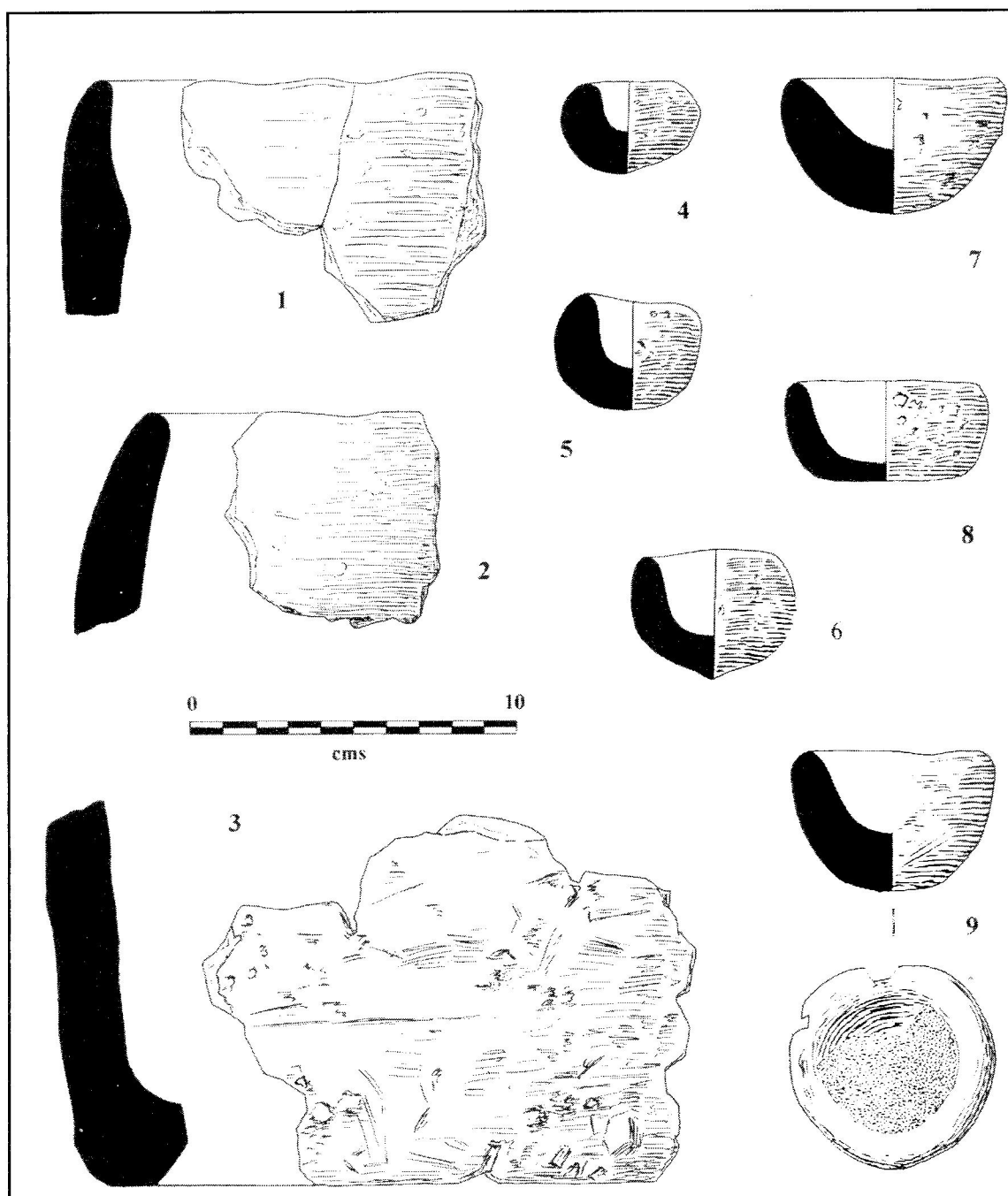


Fig.7: Pottery: 'Dunagoil Ware' and miniature vessels.

wares on Bute are of considerably better quality, so that there is no inherent reason for the poor quality of Dunagoil ware. It might be noted that the crucibles stand testimony to the fact that local specialists were quite capable of producing good quality ceramics when necessary. Several small, hand-modelled vessels were almost certainly not themselves crucibles, since unlike the latter, they show no traces of metallic deposits adhering to them, nor any spout for pouring. Within the group there is some variation in size, but they were nonetheless all probably for specialised functions. One in particular shows a sooty deposit on its inner surface with a clear 'high-tide' line (Fig.7, 9, stippled). It would be tempting to think of these as vessels for cosmetic, culinary or similar purposes. In fact, the inevitable conclusion must be that pottery was not regularly used for normal domestic and household purposes, and that crude Dunagoil ware was for some specific utilitarian or industrial purpose that required no better. The parallel that springs to mind is the first millennium BC Very Coarse Pottery ('VCP') from Cheshire and

the Welsh Marches, now recognised as briquetage from vessels connected with salt production (Morris, 1985). Mainland Argyll in this regard affords a striking contrast with the material assemblages of the Western Isles, or even the Inner Hebrides, where coarse fabrics are complemented by very fine, decorated wares.

The obvious alternatives to pottery vessels for domestic use are perishable materials for the most part, such as wood, leather or wickerwork. At Dunagoil there is evidence for stone cups (Fig.6, 13-15), but these would have been labour-intensive in production and cumbersome in use, and possibly also served only a limited specialist function. It has often been suggested that they were lamps, though relatively few, including in fact one of the Dunagoil examples, show traces of sooting. Reliable associations for stone vessels are lacking for the most part. Childe (1935, 246-7) favoured a later Bronze Age (pre-'Castle Culture') date; Steer (1956, 243-6) offered a currency from pre-Roman Iron Age to the second or third centuries AD.

The later occupation of the Dunagoil complex, focusing on Little Dunagoil, was amply demonstrated by Dorothy Marshall's excavations of 1956 to 1961. Prompted by the expectation that Little Dunagoil might have been the secular contemporary of the monastic settlement at St Blane's, the excavations did indeed yield evidence for occupation from the sixth to twelfth centuries AD, including imported pottery, bronze artefacts and a tiny fragment of glass. At the same time there were signs of earlier occupation, reinforcing the belief that in its Iron Age heyday the occupation of the Dunagoil complex extended beyond the confines of the vitrified fort alone.

Conclusion

The 1990s re-survey certainly demonstrated that the later prehistoric and early historic settlement at Dunagoil was even more complex than was appreciated hitherto, endorsing the probability that it was a high-status centre from an early date. Its strategic location would certainly have offered the potential for controlling access to the Firth of Clyde and external maritime connections via the Western Seaways. For too long it has simply been known as a fine example of a vitrified fort, which is not in any case a meaningful archaeological classification any more than 'ruined castle' might be, since vitrification is only the product of destruction of a fort with timber-framed walls. In fact it represents an important and insufficiently-recognised class of *terrain forts* or *terrain oppida*, sites of more than local importance in which a variety of functional areas might be brought within the overall enclosed circuit, even if the focal point was a particularly prominent citadel fortification. In some respects such terrain forts of the Early Iron Age anticipate the segregated structure of the nuclear forts of the early historic period. The rich material assemblage from Dunagoil is currently under review, and it can only be regretted that no contextual information survives to assist in the ordering of finds from what was doubtless a protracted, but not necessarily uninterrupted, occupation. The continuing importance of the site into the early historic period is demonstrated, not only by Dorothy Marshall's excavations at Little Dunagoil itself, but also by the proximity of the key ecclesiastical site at St Blane's which partly prompted her excavations.

It would be simplistic to say that the site warrants further investigation; plainly it does, if only to assess the extent of earlier excavations and the location and depth of possible surviving deposits. To what extent this could be achieved by non-intrusive techniques is questionable in view of the local geology, though it might be possible to define more accurately the location of previous excavation trenches. As regards a new programme of excavation, the site as a Scheduled Monument would require a fully-funded research strategy, with provision for extensive post-excavation specialist analyses, in order to obtain the necessary consents, even if this was initially with the limited objective of providing some contextual commentary upon the earlier finds.

The conclusion from this review must be to underline the outstanding nature of the Dunagoil complex, with its evidence for occupation, even if not demonstrably continuous, spanning a

period of two millennia. Its artefactual assemblage from limited investigation is immensely rich and varied, further endorsing the site's importance in later prehistoric and early historic times. Further fieldwork would be necessary in order to realise the full archaeological potential of Dunagoil, and we can only hope that an opportunity for such a programme will arise before other factors result in the deterioration of the structural and material evidence of this prime example of Scotland's archaeological heritage.

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