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## EDITORIAL

Contributions are invited on the Natural History, Geology, Antiquities and Archaeology, including Industrial Archaeology, of South West Scotland or the Solway Basin, and preference is always given to original work on local subjects. Intending contributors should, in the first instance, apply to the Editors for 'Instructions to Contributors', giving the nature and approximate size of their paper. Each contributor has seen a proof of his or her paper and neither the Editors nor the Society hold themselves responsible for the accuracy of scientific, historical or personal information in it.

A list of Members, as at 1st May 1993, appeared in volume LXVII and a copy of the current Rules, dated 13th October 1995, appears in this volume.

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Enquiries regarding back numbers of *Transactions* - see rear cover - should be made to the Hon. Librarian, Mr R. Coleman, 4 Lover's Walk, Dumfries DG1 1LP. As many of the back numbers are out of stock, members can greatly assist the finances of the Society by arranging for any volumes which are not required, whether of their own or those of deceased members, to be handed in. It follows that volumes marked as out of print may nevertheless be available from time to time.

Payment of subscriptions should be made to the Hon. Treasurer, Mr John Neilson, 2 Park Street, Dumfries DG2 7PH, who will be pleased to arrange Bonds of Covenant, which can materially increase the income of the Society without, generally, any additional cost to the member. The attention of members and friends is drawn to the important Inheritance Tax and Capital Gains Tax concessions which are conferred on individuals by the Finance Acts, in as much as bequests or transfers of shares or cash to the Society are exempt from these taxes.

Limited grants may be available for excavations or other research. Applications should be made prior to 28th February in each year to the Hon. Secretary. Researchers are also reminded of the Mouswald Trust founded by our late President Dr R.C. Reid, which provides grants for work on certain periods. Enquiries and applications for grants should be made to Primrose and Gordon, Solicitors, Irish Street, Dumfries.

The Council is indebted to The Mouswald Trust for a substantial grant towards the publication costs of this Birrens Centenary Volume in particular Dr Keppie's and Mr Hunter's articles on Birrens inscriptions and Roman and post-Roman finds from Dowalton Loch respectively also Mr Cessford's two papers; and to the Irish Gas Board towards the costs of Dr Maynard's Report on Brighthouse Bay also to Shell Chemicals (U K) Ltd towards the costs of the Barnhill Report.

The illustration on the front cover is of the Wamphray cross- or grave- slab from the article The Early Church in Dumfriesshire by W.G. Collingwood, in volume XII, Series III (1926) of these *Transactions*. It is discussed afresh by Prof. Richard Bailey in Whithorn Lecture No. 4 (forthcoming).

*Apology: Dr. David Maynard and the Editors wish to apologise to Dr. Alison Sheridan in that her valuable contribution to the article 'Neolithic Pit at Carzield' in Volume 68 was not clearly stated. The Authors of the paper, both on the Contents page and in its title should have been more correctly expressed as Dr. Maynard with contributions by Dr. Sheridan and Sheila Boardman.*

THE OCCURRENCE of LUMINESCENCE in a SANDHOPPER,  
*TALORCHESTIA DESHAYESII* from the  
SOLWAY COAST, SCOTLAND

by

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*Luminescence, co-occurring with mass mortalities, has been recorded in a population of high shore sandhoppers *Talorchestia deshayesii* (Crustacea : Amphipoda) from the coast of the Solway Firth, Scotland. It is likely that the luminescence was caused by luminous bacteria.*

The sandhopper *Talorchestia deshayesii* (Audouin 1826) is a supralittoral crustacean which belongs to the Talitridae, the only amphipod family to contain truly terrestrial representatives (Spicer, Taylor and Moore, 1987). It is common on British shores and normally burrows in fine sand on sheltered shores, around the high tide level, although it can also occur beneath stones beyond the range of the tides (Lincoln, 1979).

On the evening of 7th. October 1993, a 'large number' of dead individuals of this species was found by Mr B. Whittaker, on the foreshore of Cardoness, Wigtown Bay on the north shore of the Solway Firth, Scotland (54°51'N 4°14'W). He noticed that some, although not all, of the dead animals were luminescent. A note on the occurrence, together with one individual, for identification, was sent to me at Sheffield.

I was able to visit Cardoness on 22nd. Oct. and 7th. Nov. 1993 and was able to confirm the observations made by Mr Whittaker. The sandy beach, at and above the level of high tide, was strewn with many hundreds of dead individuals (92 - 177 m<sup>2</sup>), so much so that the smell of decay was quite offensive. Some, but not all, of the carcasses were luminescent, irrespective of their degree of decomposition. There was no evidence that the source of light was localised on the body. About 20% of live individuals collected either from burrows in the sand or from beneath decaying wrack, were luminous. There were no obvious differences in locomotor or feeding behaviours between luminescent and non-luminescent individuals. Concurrent examination of three other sandy beaches in Wigtown Bay, found to support populations of *T. deshayesii*, failed to uncover evidence of either luminescent individuals or mass mortalities. Further visits to the foreshore at Cardoness and the other sandy beaches noted above (5th Feb, 12th Mar and 2nd Apr 1994), failed to uncover any luminescent amphipods or find evidence of mass mortalities.

This is the first time that luminescence has been recorded in this species and it is the first record of luminescence in any species of talitrid amphipod occurring on Scottish shores. The occurrence of luminescence in amphipod crustaceans has been known for at least two hundred years (Harvey, 1952), although there has been very little attention paid to this phenomenon. Giard and Billet (Giard 1889, 1890; Giard and Billet, 1889) were the first to demonstrate the bacterial origin of luminescence in another sandhopper *Talitrus saltator* (Montagu 1808). They inoculated non-luminous individuals with light producing bacteria from infected individuals and so induced luminescence. I found it possible to 'induce' luminescence in non-luminescent *Talorchestia deshayesii* by inoculating them with haemolymph from live luminescent individuals. It is almost certainly the case that luminescence in the

animals collected from Cardoness was caused by luminous bacteria. Clearly the occurrence, origin and pathology of luminescence in these high shore amphipods, and particularly the mass mortalities accompanying infection, warrants further study.

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## WINTERING HEN HARRIERS IN WEST GALLOWAY

by

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### Summary

All Hen Harriers observed in west Galloway in winter between 1965-94 were classed as grey (adult males) or brown (adult females or first-years). The two classes were distributed across many habitats. Observations and pellet analyses indicated that both classes fed largely on passerine prey in winter. The majority of harrier sightings were within 5kms. of their winter roosts.

### Introduction

Studies of habitat use and prey of wintering Hen Harriers *Circus cyaneus* have previously been described and documented at different localities in Scotland and North America (Craighead and Craighead 1956, Watson, 1977 and Marquiss 1980). This paper describes the winter food and habitat choice of Hen Harriers in west Galloway (the old county of Wigtownshire) between 1965-94.

### Methods

An equal amount of observational time was spent in all habitats where I recorded all sightings of Hen Harriers during the day, noting their plumage as grey (adult male) or brown (adult female or first-year), hunting methods and prey selection between September and March 1965-94. Pellet samples were collected at intervals at their roosts in 1966-68, 1972 and 1980-81, which were supplemented by observations on hunting harriers. I also recorded the number of harriers attending their communal roosts during the same period where the ratio of grey : brown averaged 0.7. Sightings of harriers on their way to and from roosts are generally omitted and sightings of harriers on upland moors in winter were further categorised as either occurring on breeding or non-breeding moors.

Table 1  
Numbers of grey and brown Hen Harriers seen in winter in different habitats in west Galloway, 1965-94.

Area			Grey No	%	Brown No	%	Totals No
Upland:	sheepwalk/ moorland	Breeding moors	35	9.5	99	16.4	134
		Non-breeding moors	43	11.7	20	3.3	63
		Conifer plantations	7	1.9	1	0.2	8
Lowland:	Farmland 'marginal'	Pasture/cultivation	94	25.6	113	18.7	207
		rough pasture/rushy areas	179	48.6	355	58.8	534
Coast		Merse/sand flats	10	2.7	16	2.6	26
Totals			367		604		972



### Habitat Choice

Table 1 gives the results of 972 sightings of grey and brown Harriers according to habitat. The majority of sightings (76.3%) of both plumage classes were on farmland and 'marginal' areas on low ground in open country, but 62.7% of these sightings were within 5 kms of their major roosts on low ground. Craighead and Craighead also found in the Northern Harrier that the highest percentage of birds occurred in the area containing the roost.

### Pellet analyses

232 prey items were found in 221 pellets collected at two roosts (Table 2) and the results are presented as proportion of total items (c.f. Picozzi and Cuthbert 1982). The proportion of pellets containing passerine remains was variable but constant (43-83%) as was the proportion of pellets containing small mammals (10-37%). Pellets containing lagomorphs was low (7%) and only found in one year and possibly taken as carrion. The proportion of pellets containing gamebirds and/or waders was also low and variable (0-5%). Thus the number of passerine remains was fairly constant over the years and consisted of species usually associated with low, open ground in winter: overall Sky Larks *Alauda arvensis*, Meadow Pipits *Anthus pratensis*, Starlings *Sturnus vulgaris*, finch and thrush spp. accounted for 80% of all species recorded.

Table 2:  
Percentage frequency of prey in pellets from winter roosts of Hen Harriers in west Galloway 1966-81 and ratio of grey:brown birds attending these roosts.

	1966/67 & 1967/68	Feb. 1972	Dec. 1980	Feb. 1981
No. of Pellets in sample	32	82	41	66
No. of prey items identified	41	84	43	64

Prey:

Percentage frequency

	1966/67 & 1967/68	Feb. 1972	Dec. 1980	Feb. 1981
% rabbit (lagomorpha)	0.0	0.0	0.0	10.9
% gamebirds (Galliformes)	2.0	0.0	0.0	0.0
% waders (Charadriiformes)	5.0	1.2	0.0	0.0
% small mammals	10.0	15.5	30.2	37.5
% passerines	78.0	83.3	67.5	43.8
% beetles	5.0	0.0	0.0	6.2
% unidentified birds	0.0	0.0	2.3	1.6
Ratio grey : brown Hen Harriers	0.96	0.39	1.00	1.00

### Choice of prey

From direct observation, Hen Harriers radiated out from their roosts in all directions to hunt. It was not possible to follow hunting harriers all day but the bird species seen to be selected and attacked were identified and scored accordingly (Table 3). Similarly, a harrier pouncing into vegetation was scored as 'mammal' predation depending on the length of time spent on the ground (less than 1-2 minutes were dismissed). The largest species seen to be attacked by both classes were Common Pheasants *Phasianus colchicus* but they are probably over represented in the analysis. (Table 3). Overall, however, grey harriers attacked more passerines than any other species (77.3%) and over twice as much as brown harriers (38.8%) suggesting that adult males may take more passerines than do adult females or first-years (males or females).

Table 3  
Percentage frequency of prey species attacked by grey and brown Hen Harriers  
in winter in west Galloway, 1965-94

Prey species attacked	No.	% grey	Success	No.	% Brown	Success
Small mammals	2	2.0	2	27	15.1	6
Large mammals	0	0.0	0	1	0.6	0
Gamebirds <sup>1</sup>	6	5.9	0	57	32.0	0
Waders <sup>2</sup>	6	5.9	1	14	7.9	1
Passerines <sup>3</sup>	78	77.3	8	69	38.8	6
Other species <sup>4</sup>	8	7.9	1	10	5.6	0
Totals	101			178		

Notes :

1. Includes : Pheasant (61), Red Grouse (1), Black Grouse (1)
2. Includes : Northern Lapwing, Common Snipe, Eurasian Curlew
3. Includes : Sky Lark, Meadow Pipit, Blackbird, Fieldfare, Redwing, Robin, Chaffinch, Brambling, Linnet, Reed Bunting.
4. Includes : Mallard, Common Coot, Moorhen, Wood Pigeon, Feral Pigeon

### Hunting behaviour

Two or more harriers were sometimes seen hunting together or within sight of each other, both in upland and lowland habitats (Table 4). Many sightings were in habitats where there were concentrations of bird species such as root crops or stubble (c.f. Dickson 1974). Some conflicts were seen in these situations between harriers but it was not determined if they were defending individual winter/hunting areas or not, although in North America, Northern Harriers were judged to have wintering home ranges averaging 1.5 square kilometres (Craighead and Craighead, Johnsgard 1990). Some harriers also returned to their roosts during the day which suggests that food could be quickly obtained, possibly by experienced adults.

Table 4  
Summary of sightings of two or more Hen Harriers seen together  
in habitats in winter in west Galloway, 1966-84

Habitat	No. of Harriers	No. of times	No. of Grey Birds	No. of Brown Birds
Lowland	2	38	26	50
	3	16	18	30
	4	7	9	19
	5	3	7	8
Upland	2	7	2	12
	3	4	3	9

### Discussion

Samples of pellets from roosts and observations on hunting harriers consistently showed that small and medium sized passerines figured largely as prey, and included species that are usually associated with low ground in winter even when the ratio of brown exceeded grey harriers. 63% of sightings of both classes were within 5 kms of their regularly used roosts on low ground. This is consistent with Watson's (1977) finding that distance travelled from roost to hunting ground was more restricted in the shortest winter days when the weather was particularly wet or stormy. Yet some harriers occurred on upland moors in west Galloway all winter even in bad weather. Why? Marquiss (1980) thought it likely that female harriers can winter on or near their upland breeding habitats while most cocks will have to travel great distances to find a suitable winter food supply. This is broadly consistent with observations in this study. Nearly three times as many brown harriers (although splitting them into brown or grey individuals separates them neither by sex nor age) occurred on breeding moors than grey while twice as many grey occurred on non-breeding moors (Table 1) which were more distant from roosts. It would also mean that there is some advantage in expending the energy to get there from low-lying roosts where they would not only have to feed better but better by a difference of, at least, the energy equivalent of the round flight.

### Acknowledgements

These observations would have been incomplete but for the work on the analyses of pellet remains by the late I.H. Lyster of the Royal Scottish Museum, Edinburgh and Dr. M. Marquiss.

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A ROMAN TEMPORARY CAMP AT BARNHILL,  
BEATTOCK, DUMFRIESSHIRE  
REPORT on an EXCAVATION and WATCHING BRIEF 1991  
by  
Tim Neighbour<sup>1</sup>, Ian Armit<sup>2</sup>, Bill Finlayson<sup>1</sup>, and Ian Ralston<sup>1</sup>

## Introduction

This report describes the results of an excavation and a watching brief carried out by the Centre for Field Archaeology (CFA) on part of one of three Roman Temporary Camps near Beattock, Dumfries and Galloway Region (NGR: NT 088 028, Fig. 1). This work at Barnhill, Beattock formed part the archaeological studies associated with the construction by Shell Chemicals UK Ltd in 1991 of their North Western Ethylene Pipeline from Grangemouth in Central Region to Stanlow in Cheshire.

The investigated camp lies in arable land on an alluvial terrace at approximately 95m O.D., N of the confluence of the Evan Water and the River Annan and E of the Roman road heading northwards into Clydesdale (Fig. 1). Immediately to its west lies a suggested Antonine camp of 11.6 ha, which intersects a possible Roman fortlet at its north-eastern corner: to the south of this at Bankend lies a third camp, at least 17 ha in area, with distinctive Stracathro-type entrances, indicating a likely first century AD origin (see Maxwell and Wilson 1987, including fig. 9, for further details of these other sites). The camp where work reported here took place is undated.

Few surface traces of the investigated site can be identified, although a slight depression marks its northern perimeter ditch where it runs adjacent to a modern field wall. No previous excavation is known to have occurred at the site. Aerial photographic coverage held by the National Monuments Record of Scotland (NMRS) reveals it to have a complex morphology apparently comprising three structural phases (Fig. 1; the rectified cropmark plot here was produced directly from aerial photographs, hence the slight differences in detail from Maxwell and Wilson 1987, fig. 9, who may have used different aerial photographs).

In its initial phase the camp appears to have been of regular rectangular form, measuring c.425m E-W by at least 300m transversely. The positions of four entrances, each guarded by a *titulus*, can be identified. The present excavation was located immediately E of the N entrance, which lies c.150m E of the NW corner of the camp. The S side of the camp has not been recorded, most probably owing to its erosion by the meandering of the Evan Water. However, Maxwell and Wilson (1987, 40) have argued that the camp faced W, and that the diametrically opposed gateways in the E and W sides can be presumed (as is quite reasonable) to have occupied roughly central positions on the sides. On this evidence the N-S dimension would have been approximately 350m, and the enclosed area of the camp thus around 15 ha.

The camp was later subdivided by a ditch running N-S, creating a narrow enclosure c.110m across within the western interior of the original camp. Subsequently this secondary narrow enclosure was subdivided by an E-W ditch which appears to spring from the W

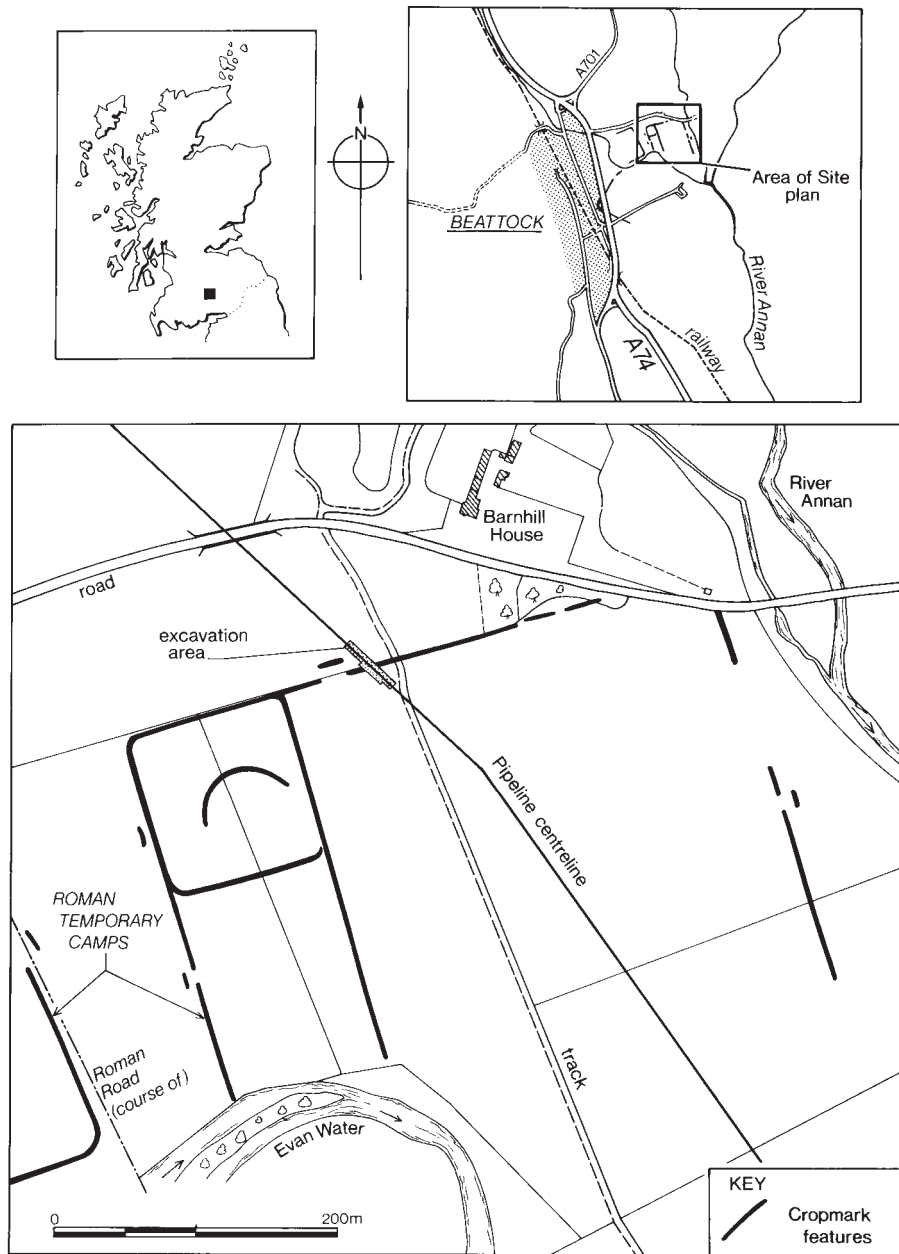


Fig. 1 Location map, showing cropmark features and positions of pipeline centreline and area of excavation.

perimeter ditch of the camp but which terminates before meeting the secondary partition ditch. This modification created a smaller enclosure measuring c.110m by 110m (1.2 ha) within the NW corner of the original camp. It is to this tertiary phase that the northern of the two *tituli* on the western side of the camp appears to belong. Aerial imagery shows the perimeter ditch to continue unbroken across the position of this *titulus*; however, if the entrance was created by backfilling a section of the pre-existing perimeter ditch with similar material to that subsequently deposited within the ditch to either side, the break would not necessarily be visible from the air. An extensive curvilinear cropmark can be traced within the tertiary enclosure; it is clearly of archaeological, although most probably not of Roman, origin.

### Working methods

The excavated area was determined by the position of the pipeline swathe as it passed through the defences of the camp. Using rectified aerial photographic imagery, the swathe was routed so as to avoid the N entrance itself, but due to non-archaeological constraints it could not miss the camp entirely. Resistivity and gradiometer surveys were conducted by Geophysical Surveys (Bradford) in an attempt to locate the position of the entrance on the ground and to confirm that the proposed pipeline route avoided it, but the results of these exercises were inconclusive (1990). In order to minimise the extent of damage to archaeological remains during pipeline construction, the topsoiled spread was narrowed at its intersection with the camp defences to 3m wide (instead of the standard 15m) and was flanked by a temporary road surface to limit ground disturbance by construction traffic.

Prior to pipeline construction a trench 21m long and 1.5m wide was excavated somewhat obliquely across the alignment of the N perimeter ditch (Trench 1). Removal of topsoil was conducted by earth-moving machinery under archaeological supervision. The defences of the camp were located immediately south of a drystone wall, which had to be dismantled to allow excavation to proceed. The trench was extended northwards sufficiently to confirm that the *titulus* and any other entrance features only known from oblique aerial imagery had been avoided by the pipeline. Excavation revealed a number of ambiguities associated with the perimeter ditch which could only be resolved by further investigation. Consequently a second trench 6m long by 1.2m wide was excavated across the line of the ditch 0.5m to the west to clarify the deposition sequence (Trench 2).

During subsequent pipeline construction all topsoiling of the 15m wide swathe across the interior of the camp was monitored, paying particular attention to the possibility of identifying internal features and the southern defences, in order to establish the N-S dimension of the camp.

### Fieldwork results

The perimeter ditch of the camp was revealed to be approximately 2m wide and cut into the orange gravel subsoil to a depth of about 0.8m. It had a U-shaped profile, with the sides sloping at c. 45° to a rounded bottom, and its northern lip lay beneath the drystone wall mentioned above.

Excavation of the ditch revealed no evidence for recutting, although a complex sequence of fills was present (Fig. 2). In Trench 1 a 0.3m deep, deliberately laid deposit of large

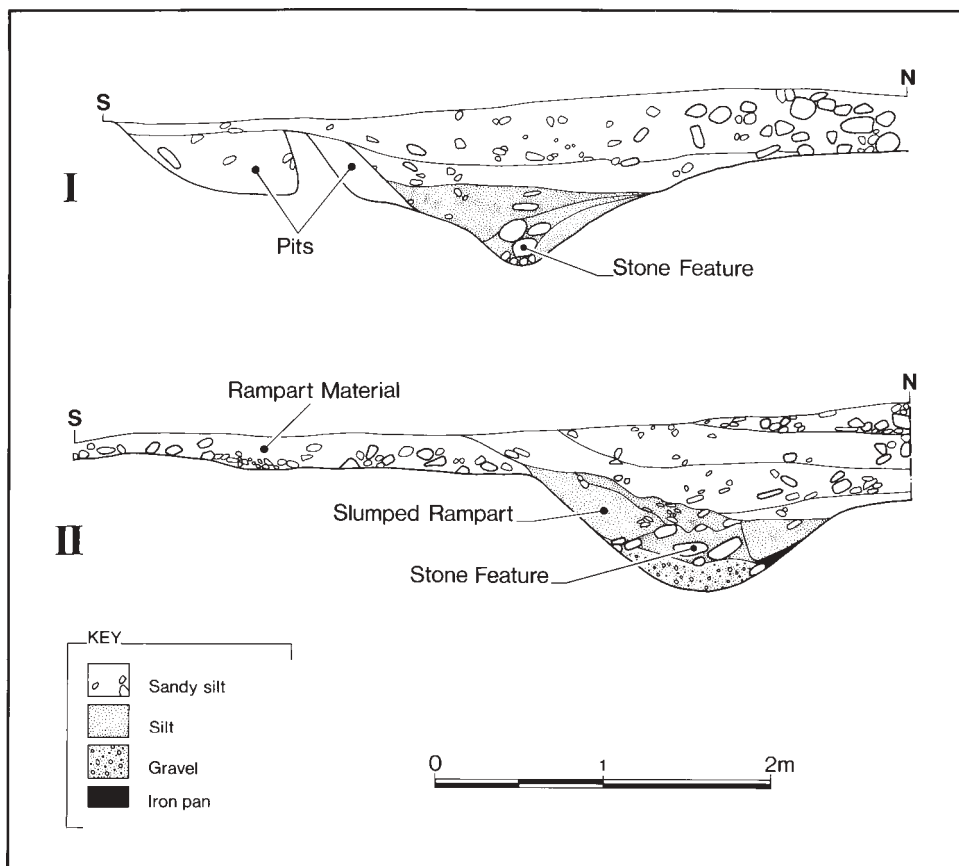


Fig. 2 Sections through the ditch. I. East-facing section of Trench 1; II. East-facing section of Trench 2.

stones within a grey silt matrix was revealed to run along the ditch towards its base. The stones forming this feature were noticeably larger than those naturally occurring in the subsoil, and their regular arrangement implies that they were not the result of collapse from a feature such as a stone kerb to the formerly adjacent rampart. In Trench 2 this feature overlay a 0.15m deep deposit of orange gravelly sand. This primary fill may represent inwash or slumping of the sides of the ditch, but it may also be material disturbed during the initial cutting of the ditch which was never removed. The stratigraphic position of the stone feature therefore suggests that it was deliberately emplaced soon after the excavation of the ditch. The stone feature was sealed beneath a series of silty deposits, most of which were greyish in colour, although a mottled silt deposit against the southern edge of the ditch in Trench 2 may have derived from the adjacent rampart. Succeeding deposits, which both filled the upper part of the ditch and sealed its preserved surface, comprised a series of mid-brown sandy silt layers containing quantities of stone.

A layer of orange and yellow sandy silt up to 4m wide and up to 0.10m deep, extending S from the S lip of the ditch, was identified as the residual plough-truncated remains of the

rampart. Its remains were clearly identifiable in Trench 2, where the base of the rampart material was defined by a layer of pebbles. Although visible in plan in Trench 1, this feature could not be defined in section.

The earliest recorded activity on site was represented by two pits which were located in the W section of Trench 1. One of these lay immediately south of the ditch cut, and was 0.90m across and 0.40m deep, whilst the other was of similar depth but truncated by the ditch. The similarities between their orange sandy silt fills and their preserved profiles, as well as their spatial proximity, suggest that the two pits were closely related. The date and function of these features is unknown, although they appear to have been filled prior to the cutting of the Roman ditch.

Monitoring of topsoil stripping was unsuccessful in locating either any internal features or the southern defences of the camp.

No artefactual material was recovered during the excavation or watching brief.

## Discussion

Although no dating evidence was recovered, a number of points of interest can be mentioned on the basis of the fieldwork results at Barnhill. Firstly, it was evident from the layered sequence of filling observed within the perimeter ditch that this feature had not been deliberately backfilled on the final abandonment of the temporary camp. The ditch appears to have been visible for long enough to become incorporated into later field systems. The drystone dyke which forms the current field boundary follows the line of the ditch closely, and lay above its N lip at the point of excavation. The quantities of stone present within the stratified layers sealing and filling the upper part of the ditch may have derived from periodic collapse and rebuilding of this dyke and any previous field boundaries constructed on this alignment. It may be that residual traces of the rampart survived at this point due to their proximity to the field boundary, where the deleterious effects of ploughing have been less sustained and severe than elsewhere within the field.

No evidence of recutting of the ditch was identified. The excavated sections of the ditch which, on the basis of aerial evidence, form part of the primary defences of the camp, do not appear therefore to have been reshaped when the western camp interior was later sub-divided.

The linear stone feature located towards the base of the ditch defies any convincing explanation. As the sand and gravel subsoil of this area is free-draining, this feature is unlikely to have been a stone drain, and it is difficult to see how it could have served a defensive function. A similar feature was located in a number of ditch sections excavated at Annan Hill Roman Temporary Camp (Keppie 1988). In a ditch terminus adjacent to the eastern entrance Keppie describes "...large stones carefully laid in the ditch bottom..." (*ibid*, 16 & fig. 4). No explanation was offered as to the function of this feature, although its presence is considered to have been localised (L.J.F. Keppie, pers. comm.). At Barnhill it is possible that this feature is also localised, and could be associated with one of the modifications of the camp visible on the aerial coverage. The discovery of further examples will hopefully lead to a better understanding of these features, although the lack of previously recognised cases suggests that they are not widespread elements of camp defences. The embellishment to the defences which the feature represents, suggests that the purpose of the



camp involved more than simply overnight accommodation.

The lack of features identified in the camp interior confirms in general terms the temporary and slight nature of its occupation. Although no substantial structures were present within the stripped areas, it is quite possible that former cultivation or machine topsoiling methods have either destroyed or obscured respectively the traces of minor features reflecting the occupation of the camp. Hand cleaning of topsoiled areas of camp interiors should be considered for future work as a means of more effectively assessing their archaeological potential.

### **Acknowledgements**

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*The Society is indebted to Shell Chemicals UK Ltd. for a substantial grant towards the publication costs of this report.*

### **Location of the Archive**

A full fieldwork report (Armit, Finlayson and Neighbour 1992), details of the desk-based stages of work relevant to the site (Ralston and Armit 1990, 124-25) and geophysical survey (Geophysical Surveys (Bradford) 1990), and the site records have been deposited in the National Monuments Record of Scotland (NMRS).

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# ARCHAEOLOGICAL DISCOVERIES IN THE DUNE SYSTEM AT BRIGHOUSE BAY

by

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with contributions by

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## Introduction

A watching brief and limited excavation work was carried out during the winter of 1992/3 at Brighthouse Bay as part of the Gas Interconnector Project for Bord Gáis Éireann. The construction of the landfall revealed evidence of a number of landscape changes in the area of the sand dunes and evidence of sea level changes within the beach and dune deposits. Associated with the buried soils were signs of Roman and earlier exploitation of marine resources and cultivation of the soils.

## Background to the Site ( Figs 1 and 2)

Brighthouse Bay is a long broad inlet of the sea, west of Kirkcudbright in the Stewartry District of Dumfries and Galloway Region. The bay is open to the south west with rocky sides leading to a sand beach backed by an area of dunes. The bay represents the lower end of a broad valley 2.5 km long by 400 metres running south west from Clauchendolly to the sea. The valley is flanked by relatively higher ground on either side rising gradually to around 50 metres O.D. The presence of thin soils and

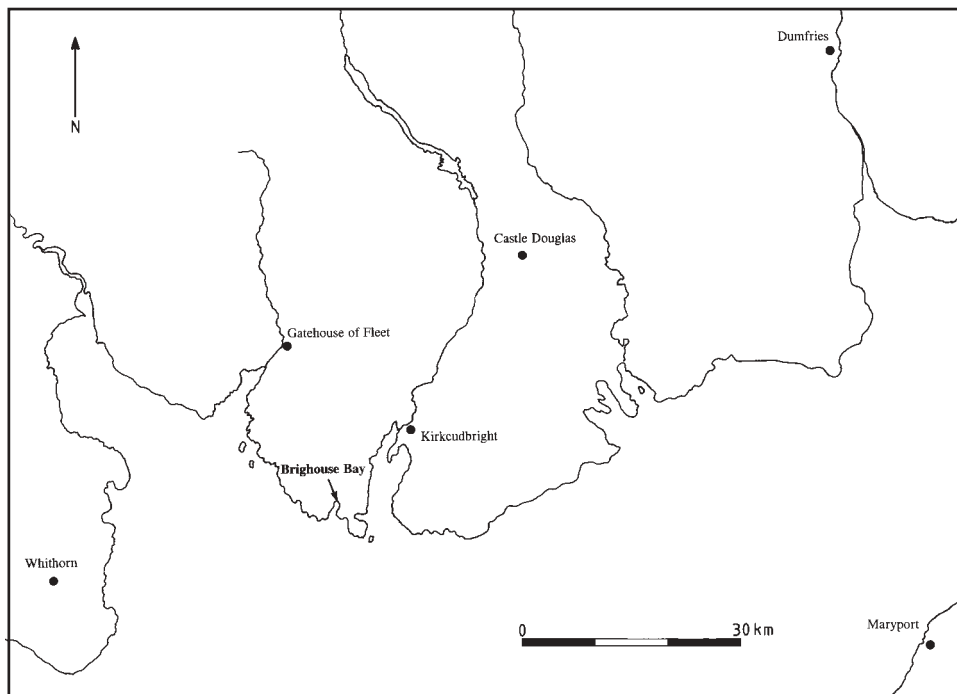


Fig. 1: Brighthouse Bay: Location.

1 National Museums of Scotland; 2 RSK Environment Ltd., Helsby, Cheshire.

rocky outcrops limits land use to permanent pasture. The Isle of Man and the Cumbrian coast are visible on clear days.

The majority of the area studied here lay within the sand dunes at the head of the bay and the field north of the present-day road. The dune system as such, occupies an area of 350 metres by 100 metres, between the road and the beach. However, there are signs that the sand covered much larger zones to the north and west in what is now permanent pasture. A small stream runs north to south through the dunes, before turning west and then flowing into the sea near the centre of the beach.

The area taken by the construction contractors was limited by the fact that the dune system is a Site of Special Scientific Interest. In the area from the road south, a construction easement of 26 metres was used, while a large area of the improved field to the north of the road was stripped and contours changed to accommodate the required services (Fig 3). The centre of the disturbed area lay at National Grid Reference NX 6378 4580. An area on the east of the stream was stripped of topsoil as were areas to the north of the field where the land pipeline entered the site. Archaeological observation and recording was conducted throughout all earthmoving operations.

### Peat Deposit Beneath the Beach

During trenching operations for the pipeline landfall through the beach at Brighthouse Bay, a deposit of peat was seen underlying the present day sands. This peat which has previously been reported (Gray and Lowe 1977) overlay deposits of grey till. The peat was approximately 1.5 to 2 metres thick and lay in a horizontal band along the length of the bay. At the head of the bay the peat was covered by up to three metres of sand and gravel deposits, while the peat was present on the beach surface near the point of low tides.

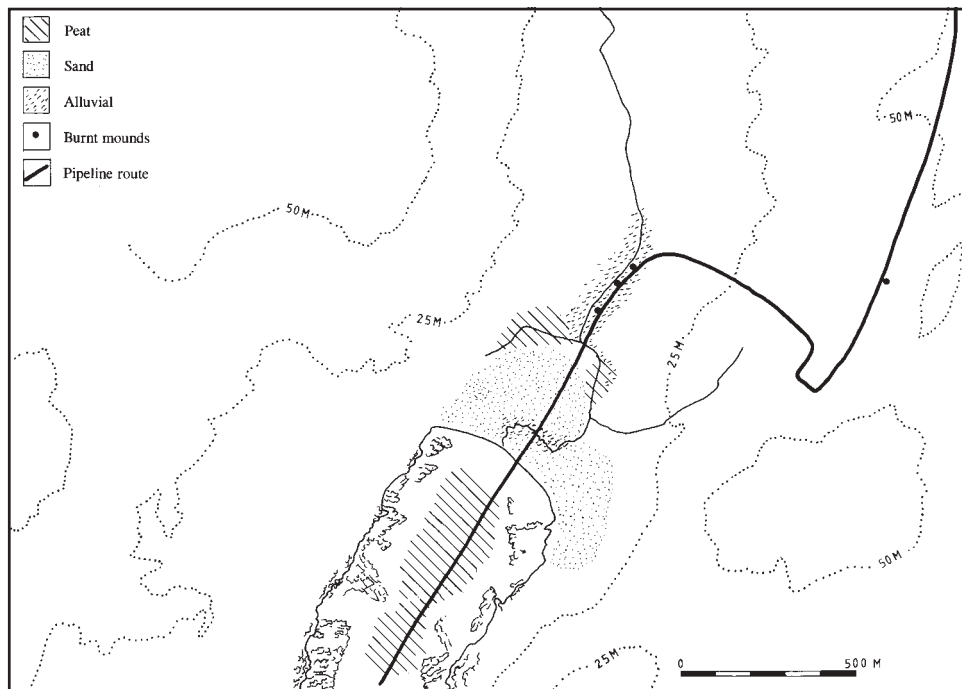
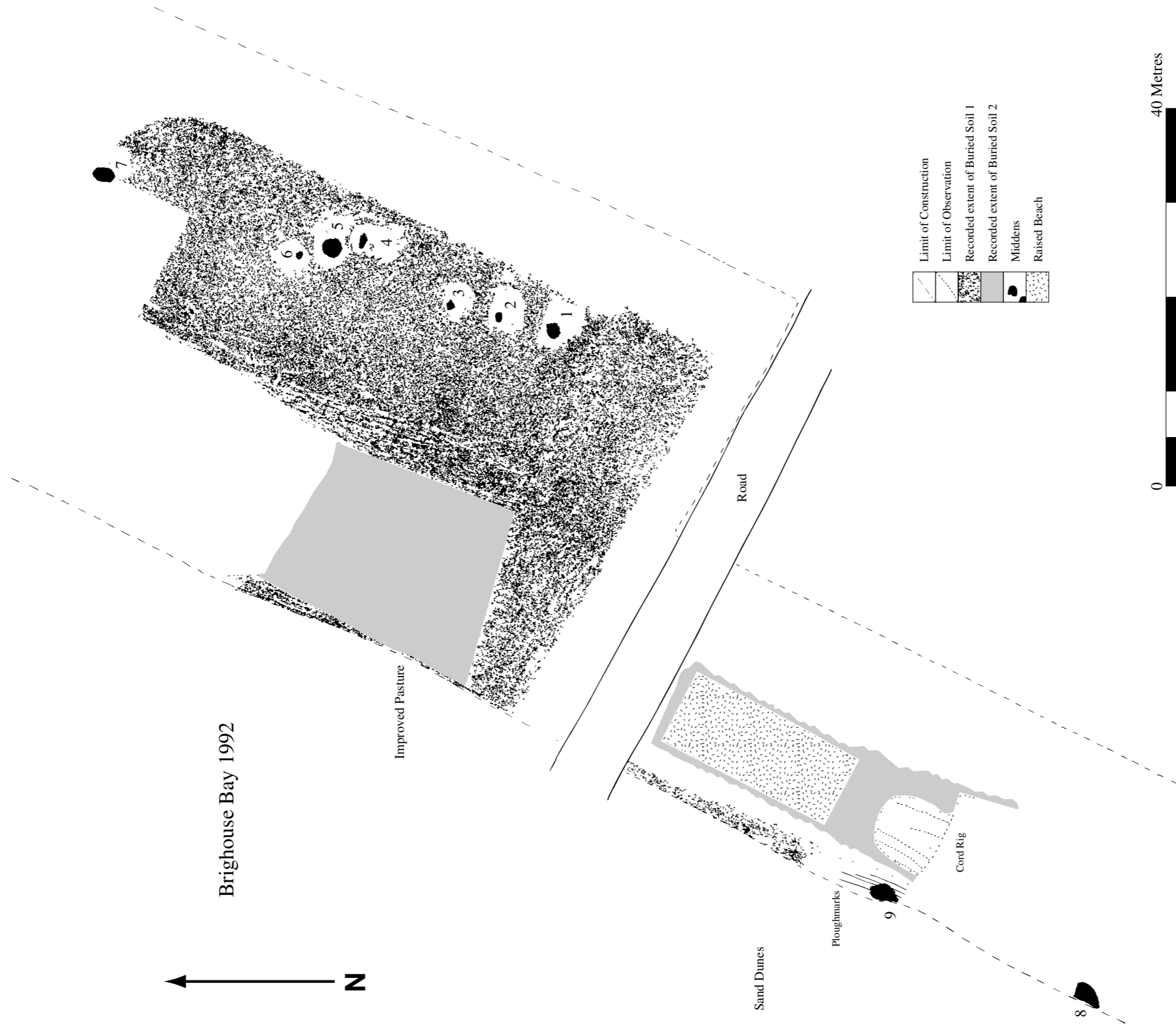


Fig. 2: Brighthouse Bay: Topography.



- Limit of Construction
- Limit of Observation
- Recorded extent of Buried Soil 1
- Recorded extent of Buried Soil 2
- Middens
- Raised Beach

0 40 Metres

Fig. 3 : Site Plan.

The peat deposits were observed during trench excavation throughout the beach, a length of over 500 metres (Fig 2). Observation could not continue below the tidal limits, but it appeared that peat continued to be dug up by the plant excavating the trench. Within the structure of the peat, twigs and timbers could be seen along with leaves and other macrofossils. The upper levels of this deposit had been removed and reworked to a level surface presumably by the action of the tides during the rise in sea level.

### **Discussion**

This peat deposit would have developed in a basin filling the area of the present-day bay, at a time sea level was substantially lower. This would have been during the Post Glacial and Pre-Flandrian periods. The upper layers of the peat were eroded and reworked during the rise in sea level around 7,500 bp.

### **The Raised Beach Deposit (figs 3 and 4)**

In the base of the trench excavated for the pipe, evidence was seen for the top of the raised beach deposits. These were gravels of rounded elongated pebble form 50-200 mm long with occasional larger boulders up to 300 mm long. Approximately 12 metres of the deposits were exposed to a depth of one metre. The top of the beach merged with the upper surface of the buried soil above it, but was predominantly covered by a sand of wind blown origin. The pebbles represented the upper portions of a beach. Unfortunately, the trench was not sufficiently deep to expose the shore line associated with this storm beach.

The line of soil horizons and beach deposits could not be traced south past the modern stream and beach, due to reworking of the deposits and working conditions within the confines of the construction area.

### **Discussion**

The top of the beach deposit lay around 10.3 metres AOD. The crest of the contemporary storm beach at Brighthouse Bay is about two metres above the high point for normal tides. Using this information it might be assumed that the storm beach represented here was the result of a sea level of about 8 metres above present day values.

Stratigraphically later than the raised beach is a deposit of wind blown sand. This as not unfortunately exposed in great detail, so that not much is known about it. It must date to the period after the maximum rise in sea levels and yet have remained in place sufficiently long for the well developed buried soil 2 to form above it. This means that the sand dune was created sometime in the late Bronze Age. The sand dunes at Glenluce appear to show similar wind activity around this time (McInnes 1964). Other sites on the western seaboard of Britain also show evidence of dune creation at this time (for example, Benson et al 1990).

### **Description of Buried Soil 2 (fig 3)**

This soil was formed on top of a wind blown sand of unknown date that had been laid over the highest levels of the post marine transgression storm beach. The soil was a fairly thick humic rich sand soil. There did not appear to be any differentiation within the horizon. The soil was a uniform mid brown throughout.

The soil was 0.6 metres thick at the southern end of the exposure, becoming thinner to the north where it passed over the top of the storm beach. In this area, pebbles were frequently seen through the profile and were common on the surface. The soil remained fairly thin north of the storm beach where

it averaged around 0.2 metres thick. There were occasional stones throughout the soil horizon mostly being pebbles derived from the storm beach.

This soil could be traced for a distance of over 80 metres as a fairly level surface dipping towards the north before rising and becoming mixed with the present day surface. It was the most developed of all the soils, including the present day ones and also the thickest, averaging 0.6 metres thick, compared with 0.35 metres for the other soils.

No artefacts or other features were associated with this horizon. Locally, small fragments of charcoal could be seen, while there were occasional marine shell fragments throughout the soil. Three fragments of scallop shell were found on the upper surface of the soil at the south end of its exposure.

The most apparent feature of this soil was a set of furrows impressed into the upper surface of the soil and covered by wind blown sand (fig 5). These were aligned roughly north to south, and were visible as low rounded parallel depressions 0.6 metres wide and a maximum of 0.03 metres deep. Due to the depth of sand in the area, it was not possible to examine an extensive area of the features; however four of the furrows were recorded surviving to a length of around six metres. The furrows were approximately 1.3 to 1.5 metres apart. No trace of ploughmarks or other features that may have helped in creating the furrows survived.

## Discussion

The period of use of the upper part of this soil could not be directly dated. It developed on a wind blown sand sealing a raised beach and was in turn buried by wind blown sand above which a horizon of Roman date developed. The thickness of the soil might suggest that a long period of stability ensued after the first wind blown sand was deposited. During this time the soil horizon developed and was in turn, covered by windborne sand. This episode of besanding could not have ceased for long when Roman period shell middens were formed. In all the cases where they were examined, it was noted that they lay at the base of the soil above the sand.

Thus, although this horizon cannot be precisely dated, the onset of besanding that sealed the soil probably began in the late Pre-Roman or early Roman era.

The primary feature of this soil is the identification of the signs of cultivation using techniques that produced narrow ridges. This is another instance of the appearance of cord rig in a pre-Roman context - see Topping (1989) and Barclay (1989). The crests of the ridges averaged 1.3 to 1.5 metres apart, a dimension that is well within those given by Topping (1989, 161). The low height and insubstantial nature of the features may be a reflection of characteristics of the sandy soil or else a short period of use of the soil before it was covered by sand.

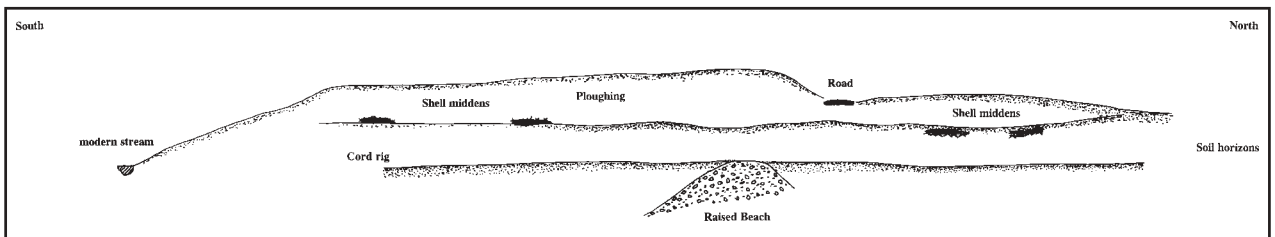


Fig. 4: Schematic section of the stratigraphy of the site.

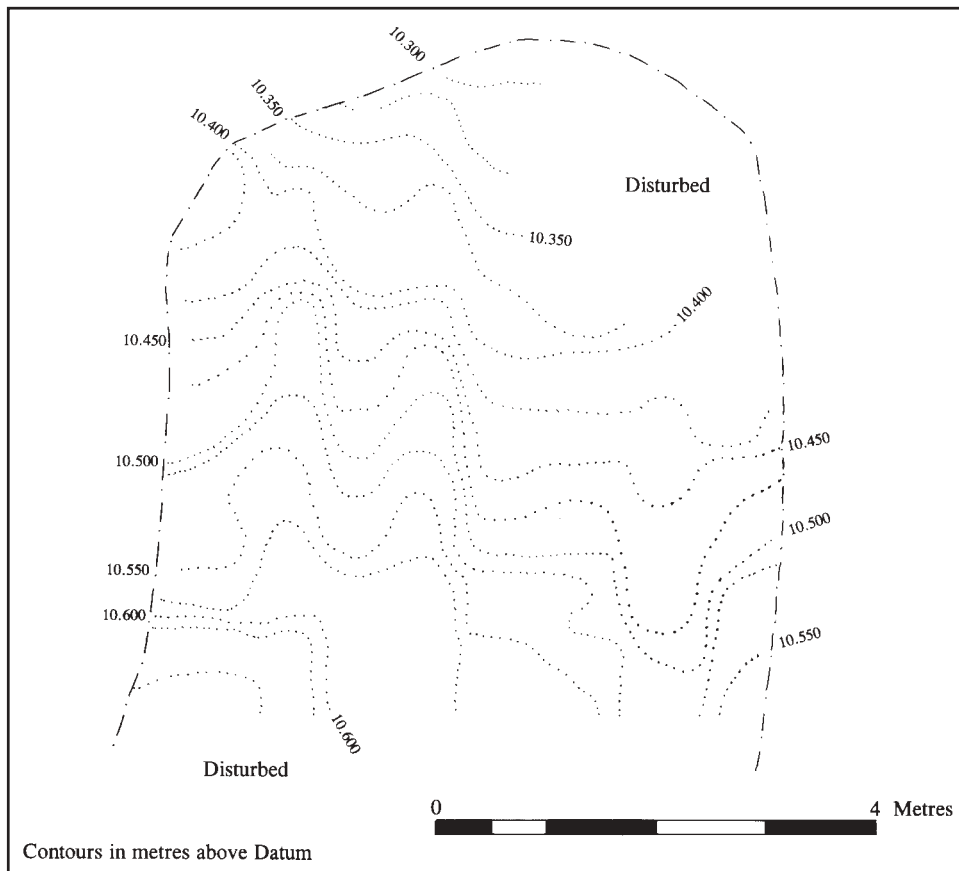


Fig. 5: Contour map of cord rig.

### Second Period of Wind Blown Sand

This soil was covered by up to a metre of clean sand, presumably of aeolian origin, that completely sealed the soil horizon. The extent to which this sand was carried to the north and west is not known. Sand must have begun to fill and block the drainage of the valley. It is possible that this sand may have begun the process of impeding the drainage which the later sand blowing completed.

The gradual accumulation of material across this valley, and the peat bog which it encouraged to accumulate, had the effect of silting up areas of the valley to the north. Within the pipeline route through the valley, north of the dunes, three small burnt mounds were located, completely buried beneath a sand silt. These are described in more detail elsewhere (Maynard 1994).

### Description of Buried Soil 1 (fig 3)

Above the wind blown sand, a developed soil formed along with the deposition of a number of shell middens. A detailed examination of the shell middens showed that they all appeared to lie at the lower point of the soil above the wind blown surface and to be subsequently covered by the soil as it developed.

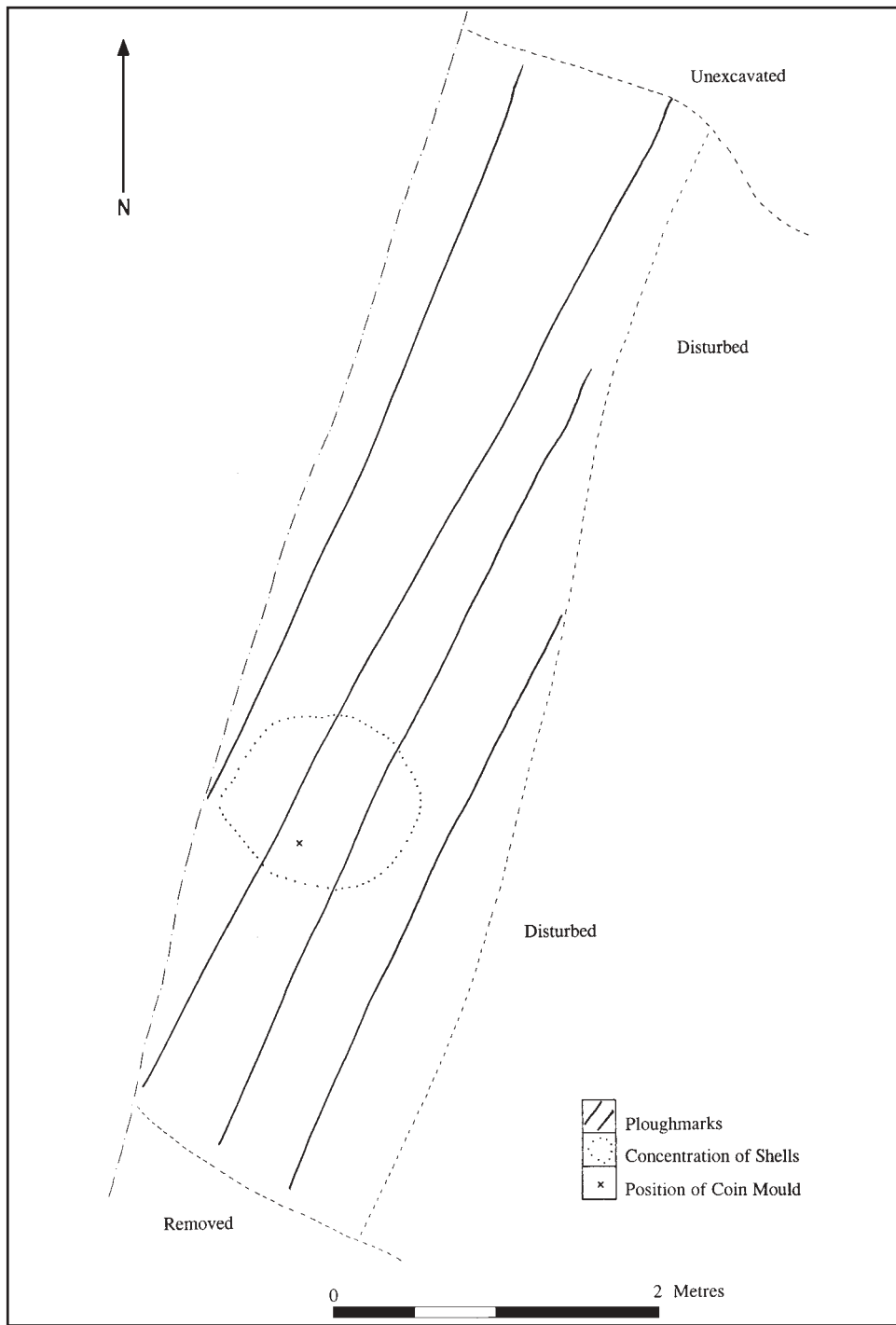


Fig. 6: Plan of shell midden 9, showing ploughmarks.



This soil was not uniformly present through the area. It was most prominent on the northern edge of the site where it dipped down towards the small valley, and on the ridge in the centre of the site. The soil became progressively thinner and more sporadic to the south. The southernmost midden (8) lay in an area of soil no more than 0.1 metre thick and separated from the area of soil to the north by a zone of about four metres where the horizon existed merely as a thin skin, that could only be followed with difficulty. South of the midden, no trace of any soils could be seen. In part, this could be attributed to reworking of the sands in this area by tidal action and movements of the stream. Similarly, the lower buried soil could not be followed past this point.

### **The Middens**

A total of nine areas of shell deposits, or associated dark soils and charcoals, were identified as having the characteristics of shell middens. Seven of these lay in the northern part of the site where they appeared to lie in a rough line along the flank of the valley, possibly to give some protection from the prevailing winds. None of these middens was fully excavated, as in most cases only the upper surfaces of the features were exposed by removal of soil above them. These features were then covered over and temporary offices erected in this area.

Despite the small area of middens exposed none appeared to be very extensive, averaging about two metres in diameter. The contents of each midden were fairly specific with one species of shell dominating each dump. This is consistent with the collection of shellfish over a short period of time. Limpets and winkles were the most common species collected.

Some of the features were only identified as areas of black soil and burnt sand, which contained little or no shells. Possibly these represented an area where food was prepared and processed.

### **The Two Southern Middens (fig 3)**

During the excavation of the pipeline trench through the dunes south of the road, a number of features were recorded on the western edge of the trench. They were not continuous and were only seen on the west side for a width of around five metres. Despite close monitoring of the earthmoving on the east edge of the trench, no archaeological features were seen, except for some development of the Roman period soil horizon at the extreme northern part of this area. The surface of the dune system dips by around a metre from west to east and the present day land use changes from rough dune grasses to a hay meadow. It is possible that in the past, there has been some human disturbance to this area which has resulted in the creation of the hay meadow. This could have involved soil disturbance that might have affected the survival of the archaeological features.

### **Shell Midden 8**

This was composed of a loose spread of limpet shells associated with burnt stone and some animal bone set in a matrix of dark brown soil. Most of the midden lay in the undisturbed dunes to the west of the pipe easement. The excavated portion of the midden was three metres long and 1.5 metres wide aligned roughly north east to south west and dipping to the west. The maximum thickness of the midden material was 0.1 metres. A thin, stone free, mid brown layer separated the midden from the wind blown sand below, which may represent an incipient soil horizon formed prior to the deposition of the midden.

The associated soil horizon was not easily followed from areas to the north. The diffused and scattered nature of the midden could be due to disturbance caused by ploughing related to the marks to the north. However, there were no sign of ploughmarks to be seen in this area.

The upper portion of the midden was completely covered by wind blown sand. Cleaning off the sand to fully expose the midden revealed an iron spearhead (SF 1) lying on the surface of the midden directly covered by the sand. Within the midden was a stone pestle (SF 2).

### Shell Midden 9

This midden was represented as an area of dark brown soil containing much midden material. Marine shells and burnt stones were present, but were not predominant. To the north of the concentration of shells was a soil that equated to the buried soil recorded in the north of the site. In this area, it consisted of a brown sand with two different horizons. The upper horizon was a light to mid brown sand with low humic content. The lower horizon was a dark brown sand containing frequent charcoal flecks and fragments. Shells and portions of burnt stone were common throughout this zone. The soil horizon averaged 0.2 metres in thickness.

The main feature of the soil where it was examined was a set of ploughmarks running north to south. There were four marks in total, 0.4 to 0.6 metres apart, which could be traced for up to 7 metres, between areas where they had been destroyed and the unexcavated portions.

The ploughmarks had a V-shaped cross section 100 mm wide at the top and up to 150 mm deep. The marks penetrated both the upper and lower horizons of the soil and mixed together the two sets of material. Marine shells and flecks of charcoal were common throughout the horizon together with fragments of pottery. The coin mould was found to the south of the midden.

### Discussion

The shell middens over the site all have the same stratigraphic relationship with an extensive area of buried soil. This would show that there was a period of extensive, low scale, collection and processing of the marine shell resources in the Brighthouse Bay area.

In so far as any of the features can be dated, the period of use could be in the second and third centuries AD. The general absence of artefacts from the group of middens on the north east of the site suggests that either they are of a different date from those within the dunes or else that the focus of activity was somewhere to the west of the pipeline route.

The material associated with middens 8 and 9 mostly suggests that they derive from manuring of the area to increase the fertility and structure of the sandy soils. The deep ploughmarks recorded in this area all run in the same orientation and seem to be the result of one episode of ploughing, which might suggest that this activity was designed to assist in mixing the midden material with the sand. However, many of the objects in this area are not abraded. The coin mould in particular is undamaged. These factors might suggest that close by, to the west of the features, is some form of occupation or settlement. The nature and date of the artefacts suggest that the use of this site was sharply focused towards the Cumbrian coast and the Roman settlements to be found there.

### Third Period of Wind Blown Sand

The soil that formed over the Roman shell middens was covered by an episode of besanding that gave the dune system at Brighthouse its present appearance. It is probably this episode of besanding that placed material in the small valley which drains into Brighthouse Bay. Here the sand blanketed a peaty mire with up to 0.5 metre of material. The sand also partially covered an area of peat 200 metres to the north west from which column 1 was taken.

The soil horizon was covered by to 0.5 metre of sand, although locally this was over a metre in places. Above this, the modern soil horizon formed.

There is no strong evidence for the date of this episode of wind blown sand. It occurred after the deposition of Roman period objects, but must have been separated from them by some considerable

period in time. A possible date for this is suggested by Luce Sands where there appears to be activity in the eighth and ninth centuries AD in dune movements.

## The Finds

### Mould for false denarii (fig 7)

George C Boon

Terracotta mould, discoid, 25 mm diameter, 4 to 5 mm thick, burnt grey, with the impression of a Severan denarius on either side. This was an element in a composite mould consisting of columns of such discs encased in clay, with provision for the access for the molten metal, often a white bronze devoid of silver. This mould was therefore the middle of a group of three or more, a missing disc to either side completing the impression of the two coins, of which one side only is in evidence. The ancient chip at one point, where the metal entered, would have been caused when the mould was broken open to obtain the casts.

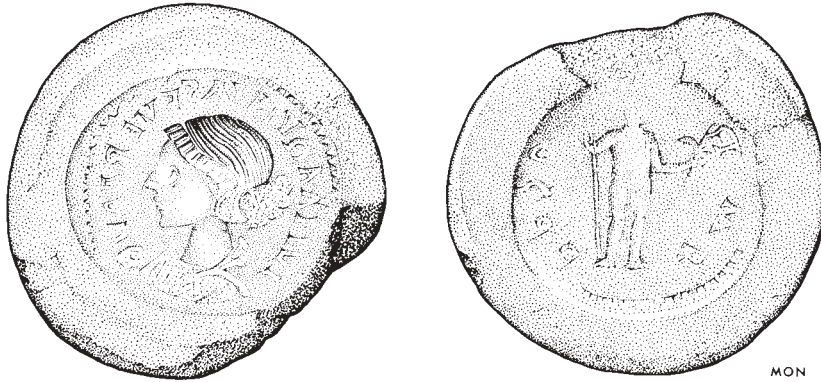


Fig. 7: Coin mould: scale x 2: drawn by Marion O'Neil.

SIDE A bears the impression of the obverse of a denarius of Aquilia Severa, with her bust to right (described from a cast); she was a Vestal Virgin made his empress by Elagabalus in AD 220. Coins of Aquilia Severa are extremely rare as British site-finds. This one was in mint condition.

SIDE B bears the impression of the reverse of a denarius of Severus Alexander, with his abbreviated titles P M TR P COS P P ('High Priest, in Tribunicial Power, Consul, Father of his Country') around a figure of Mars standing left, holding a spear reversed in his left, and a flower, emblem of hope, in his outstretched, right hand. The original, of AD 222, is common and is listed in *The Roman Imperial Coinage*, vol iv 2, as no 7 (Mattingly et al 1938).

The mould belongs to the main period of denarius-counterfeiting, associated with the reintroduction in AD 238 of the double-denarius (antoninianus), when the restriking of old denarii as antonianiani shows that a premium attached to the former. Nearly 20 instances of mould-debris of this period are recorded from Britain alone (Boon 1988, 107-10, 125-7). The findspot, so very remote, is intriguing, but is not unparalleled, and should most probably be understood in relation to affairs on the south side of the Solway, rather than its own hinterland, which is almost devoid of Roman material nearer than Glenloch, let alone anything of late Severan date.

**Metalwork**

Fraser Hunter

SF 1 (Fig 8)

Iron spearhead with a long split socket and an angular kite-shaped blade, lenticular in section and lacking a mid-rib. The split of the socket extends slightly onto the blade. On either side of the split, 6 mm from the base, is a channel some 2 mm wide: the two parts run round to the opposite side of the socket but do not appear to join up. There are faint traces of one or two shallow encircling grooves above and below the channels. These features probably derive from fixing the shaft more firmly in the socket by some kind of clamp in the channels, bound with wire in the grooves. The socket is circular at the base, becoming more quadrangular further up. Overall length 98 mm; blade length 48 mm, width 29 mm; socket length 50 mm, external diameter at base 19 mm, internally 12 x 13.5 mm.

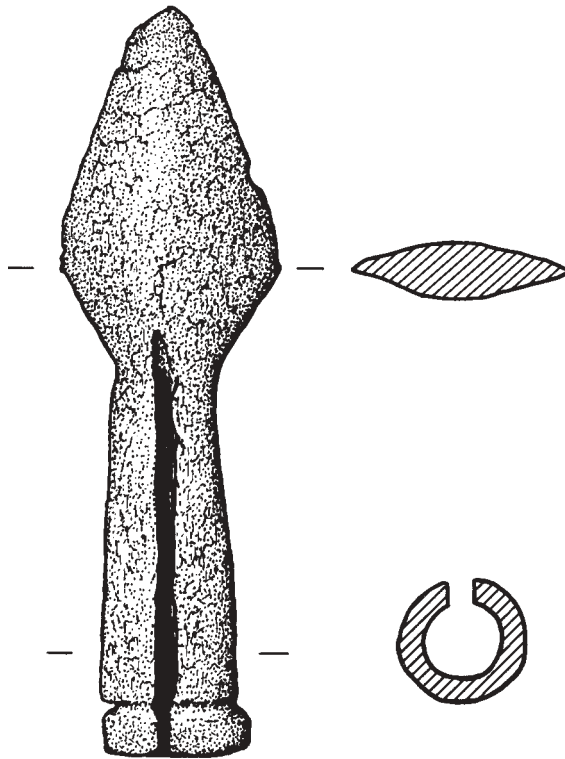


Fig. 8: Iron spearhead: natural size: drawn by Marion O'Neil.

This is an all-too-rare example of an Iron Age / Early Historic spearhead. Closer typological dating is currently impossible, since many forms remained current from c 400 BC to c 800 AD, and this is compounded by the paucity of material from Scottish Iron Age and Early Historic sites. Surviving examples illustrate the diversity of spearheads in use, seen most clearly in the wide range from Roman Iron Age levels at Traprain Law, East Lothian (Burley 1956, nos. 384-398, fig 6). This diversity makes it hard to quote exact parallels, but angular blades are known from Traprain, and split sockets from both here and Dunadd, Argyll (Christison et al 1905, fig 57). None of the above examples is certainly

earlier than the 1st century AD, but the earlier occurrence of this general type is seen in East Yorkshire cemetery material (Stead's type A3: 1991, 75), dated to c. 3rd-1st century BC.

The evidence for binding is very unusual, since a rivet through socket and shaft was the normal method used.

#### SF 5

Two iron holdfasts, each consisting of a square-headed iron nail with a square-sectioned shank, the end passed through a rectangular metal plate (rove) and hammered over to form a more solid joint than a simple nail. The earliest examples from Scotland known to the writer are from Roman Iron Age levels at Traprain Law (Burley 1956, 531 [rove only], 516b [rove and nail]). Such objects have a wide date range, from the Roman period onwards (Manning 1985, 132-4).

The Brighouse examples have dimensions as follows:

- (1) head max. 22 mm (damaged); shank 8 mm in section; rove 29.5 x 19 mm, 6 mm thick. It held a join 32 mm thick.
- (2) head 16.5 mm x 19.5 mm (damaged); shank 8 mm in section; rove 25 x 22 mm, 5 mm thick. It held a join 22 mm thick.

Both holdfasts have twisted shanks, implying that the planks they were joining were twisted, perhaps in an attempt to dismantle them.

#### SF 6

Copper alloy tube fragment, c. 2.5 mm diameter, formed from a rolled metal strip, with one end solid. The fragment has snapped off a larger object: towards the broken end it had been flattened, perhaps by hammering, before breakage. Length 10 mm. Function and date uncertain.

### Ceramics

Fraser Hunter (assisted by Colin Wallace)

#### *Roman*

#### SF 4

Wall sherd from large oxidised-fabric coarse ware vessel. 63 x 51 x 11 mm.

#### SF 7/1

Wall sherd from large oxidised-fabric coarse ware vessel. Very similar to SF 4. 50.5 x 31 x 8.5 mm.

#### SF 7/2

Wall sherd from grit-tempered grey fabric coarse ware vessel. Soot deposits externally. 44 x 31 x 8.5.

#### SF 7/3

Wall sherd from Black Burnished Ware 1 (BB1) vessel. 21 x 17.5 x 7 mm.

#### SF 35.1/1

Samian wall sherd, heavily abraded: traces of red glossy slip and two parallel grooves. Central Gaulish? 21 x 17 x 6 mm.

The most chronologically diagnostic sherds are the BB1 and Samian, both of which are probably 2nd century AD in date. The other sherds would fit with such a dating. This is a significant addition to

the few non-Roman sites in the area known to have received Roman goods: the nearby caves at Borness and Torrs also contained Roman material of probable 2nd-century date (Robertson 1970, 207-8, table V). Although based on a very small sample, the presence of at least three coarse ware vessels on the site compared to one of fine ware (Samian) is unusual, as the natives tended to prefer higher-quality pottery.

*Other*

SF 35.1/2

Highly abraded potsherd, surfaces lost. Oxidised fabric with mixed small-grit temper. Character and date uncertain. 20 x 15.5 x 5.5 mm.

SF 35.1/2

Amorphous friable burnt daub chunk. 17 x 11 x 7.5 mm.

**Stone**

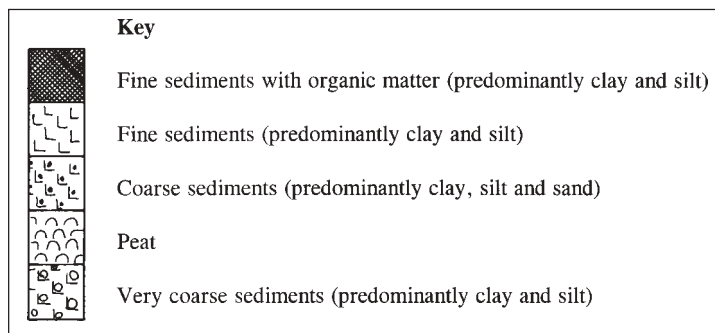
Alison Sheridan

SF 2

Pestle. Length 122 mm, width at one end 44 mm, at the other 50 mm; thickness at ends 35 and 46 mm respectively. Body slightly flattened cylinder, tapering towards one end; slight faceting along one of the broad sides (which, whether naturally or humanly formed, would have aided the grip). Ends smooth and domed from use in (presumably stone) mortar. No traces of any staining which might suggest any specific grinding purpose; could well have been used for general purpose food grinding.

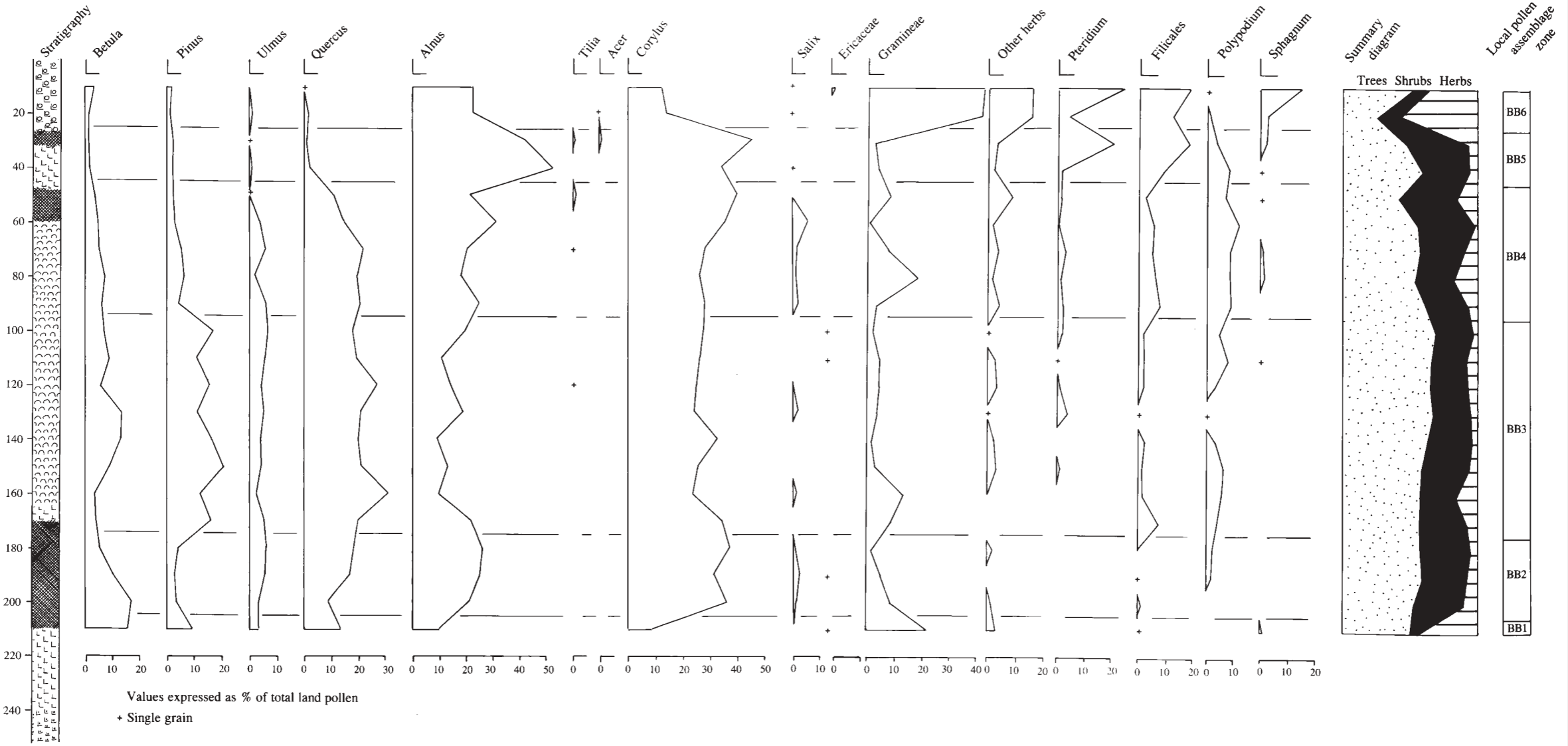
Hard, fine-grained grey stone, almost certainly a beach cobble; minimal shape modification.

Because of their simplicity of shape and function, these artifacts tend not to vary greatly over time, and have been found in contexts spanning several millennia. Individual finds are therefore hard to date. Within the context of the other Brighouse Bay finds, there is no reason why this should not be contemporary with the other Roman period objects.



Key to stratigraphy of Core 1 pollen diagram (opposite).

BRIGHOUSE BAY 1992  
Core 1  
Percentage pollen diagram



**POLLEN ANALYSIS at BRIGHOUSE BAY**

Sheila Rapson

Peat columns were examined for pollen in three locations around Brighthouse Bay. Core 1 was extracted in August 1992 as an augur core from the bog to the north west of the construction area. Core 2 was taken from a mire deposit sealed by silt in the valley north of the dunes. This was revealed in a section of the pipeline trench in March 1993. Core 3 was obtained from a machine dug profile to examine peat sealed beneath wind blown in the valley north east of the construction area.

Core 1 was the most informative as the pollen grains were well preserved. The other cores had varying amounts of sand and silt which militated against good preservation of pollen grains.

**PRESENTATION OF RESULTS****CORE 1****Stratigraphic sequence**

The stratigraphic sequence found during coring is shown below.

0-3cm	Turf and roots.
3-27cm	Mid grey-brown sandy organic silt, with occasional gravel.
27-32cm	Darker, more organic, softer silt without sand or gravel.
32-48cm	Sudden change to grey, soft silty clay. No sand or gravel. Occasional plant remains.
48-60cm	Grades into increasingly organic, more brown soft silty clay with wood remains at 54-48cm. Some sedges present (fen deposit).
60-90cm	Dark brown fibrous soft peat with silt. Sedges in the bottom (fen deposit).
90-120cm	Peat, becoming reddish-brown at the top. Quite large sedge remains. Wood fragments. almost completely organic.
120-156cm	Poorly humified, fibrous peat throughout. Sedges near the top. Wood in the middle.
156-165cm	Peat with increasing silt content.
165-170cm	Greenish-grey marly material with shells
170-180cm	Shell fragments in fibrous light olive matrix grades down to brownish-grey organic silt with sedges.
180-192cm	Fibrous organic silty greyish matrix with sedge remains ( and a shell).
192-195cm	Wood fragments. Matrix becoming more grey.
195-198cm	?
198-210cm	Marked change to sticky light grey clayey silt with some organic remains. Thin organic layers are possibly present.
210-240cm	Bluey/pink clay with occasional sand grains and increasing gravel.
240-252cm	Pink-grey clay with increasing sand and gravel.

**Zone BB1 (205-210cm) Grass, birch, oak, hazel, alder**

This zone comprises only one sample, as the silts and clays below 210cm do not contain pollen. Thus it could be that the pollen at 210cm is anomalous; however, the dramatic contrast with the sample above at 200cm means that it justifies close scrutiny and so has been defined as a separate zone.

The zone is dominated by grasses (22%), with lesser amounts of birch (16%), oak (14%), hazel (9%) and alder (9%). It is the high values of grass that differentiate it from the zone above so distinctly. Values of herbaceous plant (except grass) and ferns are low.



**Zone BB2 (175 -205cm) Hazel, alder, oak**

At the base of this zone values of hazel increase substantially from only 9% to 36%. Above this it maintains values in the region of 32-37% and is the most dominant pollen type throughout the zone. Values of alder and oak increase also. Alder reaches 21% at the base of the zone and 26% at the top. The rise in oak does not begin at the very base of the zone, but by the top it has achieved 18%. Grass pollen comprises, for the most part, less than 10% of total land pollen.

**Zone BB3 (97-175cm) Oak, alder, pine**

In this zone hazel values are consistently high, and lie between 24 and 34%. Values of oak have increased and, with the exception of the bottom-most sample in the zone (at 170cm) lie within the range 18-31%. Alder values are generally slightly lower than in the previous zone, ranging from 9-22%. Pine reaches its peak representation, with values between 11 and 21%. Birch generally accounts for less than 10% in the zone whilst non tree pollen is also low. The exception to this is at 160cm where grass values unexpectedly rise to 14%. That is not perhaps an irrelevant anomaly is shown by values for grass of 8% in the sample below (170cm). Associated with this is a relatively high percentage of fern spores (8%).

In this zone pollen was found to be relatively sparse, and several slides had to be counted at some levels in order to get meaningful results. At 100cm, 110cm and 130cm only 100 dry land pollen could be found on a total of three slides, although at most of the other levels it was possible count at least 200 dry land pollen on three slides.

**Zone BB4 (45-95cm) Hazel, alder, oak**

In this zone values of hazel are still very high (26-42%). Alder becomes more important than oak once again, having values of 18-31%. Oak begins to tail off at 70cm; below this level it attained values around 20%, but above this level it drops to only 13% at 50cm. Values of pine fall suddenly at the BB4/BB5 boundary and thereafter are generally between 2 and 5%. Percentages of birch also decline, but in a much more gradual manner from around 6-7% at the base of the zone to 4% at the top. Elm values, which have generally been consistently between 4 and 7% throughout the pollen diagram suddenly decline to less than 1% at 50cm and do not recover. For the first time willow is consistently present in the assemblage, with values up to 5%. There are sporadic occurrences of lime pollen.

Non tree pollen and spores both increase slightly in Zone BB5. The percentage of grass pollen is erratic, with values ranging from less than 10% to 19%. There is a noticeable increase in the percentage of other herbs, at the top of the zone (50cm) where they reach 8%. Finally, the proportion of ferns increases at the base of the zone, with polypodium representing 7-10% of the dry land pollen and other ferns between 3 and 7%.

**Zone BB5 (25-45cm) Alder, hazel**

This zone is represented by only two samples, but is very distinct from that above and below because of its very high values of alder. Alder reaches 43% at 30cm and 53% at 35cm, whereas in other zones the maximum value is 21% (60cm). Hazel values also reach their peak (46% at 30cm) but the change is not so dramatic as in the case of alder.

The very high proportions of alder and hazel may have had the effect of depressing values of other pollen types: birch, pine, elm and oak are now all well below 5%. Grass and other herbaceous pollen types remain fairly low (less than 5%) but are not dramatically changed from the zone below. One change that is noticeable is the increase in spores, particularly bracken and other ferns (excluding polypodium). They both exceed values of 10% for the first time, with bracken reaching 20% and other ferns 19%. In contrast, values of polypodium decrease slightly from their maximum in zone BB4.

**Zone BB6 (10-25cm) Grass, alder, herbs, hazel**

In this zone values of grass increase dramatically to 43% and other herbs to 16%); there is a corresponding decrease in alder (to 23%) and hazel (to 12-14%). Values of bracken and other ferns generally remain high, whilst polypodium decreases to 2% or less. In contrast, values for sphagnum moss increase substantially in the uppermost sample, reaching 14%.

## POSTGLACIAL ENVIRONMENTAL CHANGE AT BRIGHOUSE BAY

## The Carse Clays and Zone BB1

The lowermost sediments laid down at Brighthouse Bay are non-organic silts which do not, for the most part, contain pollen in a sufficient quantity to be counted. It is likely that these silts represent sediments which were laid down during the Main Postglacial Transgression, a period when sea levels on the Solway coast, and in many other places, were higher relative to the level of the land than today. During this time the sea overran the coastal land, carrying with it the clayey/silty estuarine deposits of the Solway Firth.

The Main Postglacial Shoreline occurred around 6500 to 7000 bp. Exact dating of this shoreline is uncertain. Radiocarbon dates ranging between 9620 and 6800 bp on peat and wood buried beneath deposits (known as carse clays), associated with the transgression in South West Scotland, indicate low sea levels during the early Postglacial (Dawson, 1984). The oldest date from peat lying on top of the carse clays is ca. 6650 bp. From this Sissons (1974) suggested that the culmination of the transgression in the Solway Firth occurred between 6650 and 6800 bp. However, other workers have produced both slightly older and slightly younger dates for the culmination of the transition. For example, Jardine (1964) dated the base of the carse clays from Redkirk Point to be ca. 8135 bp. At Lochar Moss the upper face of the clays was dated by Jardine to 6645 bp.

Further evidence that the clays date from this period can be gained from examination of the pollen samples immediately at the top of the clays. Most important is the change in the proportion of tree pollen to non tree pollen at the zone BB1/BB2 boundary, and especially in the importance of the change in alder and pine. At the boundary there is a sudden increase in the amount of tree pollen. In Zone BB1 alder, hazel and birch are low compared with Zone BB2 and birch and pine are high compared with Zone BB2. Such a rise in alder pollen and fall in pine pollen have long been associated with the beginning of what has traditionally been known as the Atlantic period.

The rise in alder pollen which has always been evident in British Postglacial pollen diagrams (assuming that the deposits date back far enough) has been extensively radiocarbon dated. Birks (1989) has examined 135 pollen diagrams from all over Britain and has concluded that alder arrived in the south east of Britain first, about 8000 years ago and gradually moved north, not reaching the far north of Scotland until 5500 years ago. Birks concludes that on the Solway coast alder began to invade at or slightly after 7500 bp. Tallantire (1992) suggests, however, that it may have been somewhat later, around 6800 bp.

If the rise in alder at the base of the Brighthouse Bay pollen sequence does represent the alder rise which occurred some time between 6800 and 7500 bp then one is provided with an approximate age for the base of the peat found there. In addition, given that the clays begin at approximately 6.5 metres above sea level it is likely that they are the carse clays which represent the Main Postglacial Shoreline. Assuming both are so, the situation at Brighthouse Bay is very similar to that found at Racks Moss. Only if the carse clays at Brighthouse Bay could be penetrated and any peat found below sampled, would it be possible to be more definite about the location of the alder rise.

Immediately after the end of the formation of the Main Postglacial Shoreline, when sea levels began to fall relative to the level of the land, Brighthouse Bay was likely to have been dominated by

brackish lagoons which covered the carse clays. It may well have been colonised by plants such as phragmites. This reed swamp phase is reflected in the Brighthouse Bay pollen diagram by the high grass levels at 210cm, a feature which is also seen in the work of Oldfield (1960) on Silverdale Moss and the work of Nichols (1976) at Racks Moss and Aros Moss.

Also growing in the area, possibly on higher land clear of the carse clays, were alder, pine, birch, hazel, oak and elm. Alder would have been growing on the wetter sites. Pollen profiles showing similarly dominated sites are found at Aros Moss (Nichols, 1967), Nick of Curleywee and Bigholm Burn (Moar, 1968), Loch Dungeon and Snibe Bog (Birks, 1972). The Racks Moss site (Nichols 1967) shows much lower percentages of hazel and birch than the other sites and is more likely to have been dominated by oak and alder.

### **Zone BB2**

This zone shows a marked rise in alder and hazel pollen, and it is possibly only at this stage that trees become well established in the area, the salt marsh having dried out. Birch and pine become less important components of the forest, whilst elm is still constantly present. Values for grass pollen decline throughout the zone, and representation of other herbs and ferns are low, further lending support to the idea that the forest was closing in. Similar pollen profiles are found at Aros Moss, Nick of Curleywee, Snibe Bog and Loch Dungeon. Bigholm Burn has relatively high birch and alder components, but quite low values for oak and hazel. Racks Moss has lower values for hazel and in the lower part of the zone, lower birch values.

### **Zone BB3**

The transition between Zones BB2 and BB3 is quite gradual, with the main changes being a move towards higher levels of oak and pine, with slightly lower levels of alder and hazel. The relatively high levels of pine pollen compared with many sites in South West Scotland (for example Little Lochan and Bigholm Burn) may be related to the coastal location of Brighthouse Bay. Walker (1966) states that pine counts are likely to be higher at coastal sites where coastal sands and gravels give it a competitive advantage. At inland lowland sites it is unlikely to have ever been an important component of the forest, although at highland sites it may have been.

Associated with the changes mentioned is a rise in grass and other herbaceous pollen and a rise in the proportion of ferns. These changes are probably local in origin and, as they are short-lived cannot easily be correlated with other pollen diagrams without detailed and accurate radiocarbon dating. It may be that these increases were brought about by Neolithic communities living in the Brighthouse Bay area.

### **Zone BB4**

This zone shows that the Brighthouse Bay area was still forested, largely with hazel, alder and oak, although there are still significant quantities of birch, pine and elm. That forests comprising hazel, alder and oak dominated much of South West Scotland in the middle of the Postglacial period is also shown by pollen assemblages from Snibe Bog, Loch Dungeon, Bigholm Burn, Moss of Cree, Racks Moss and Aros Moss, although at Aros Moss and Bigholm Burn birch is a more important element of the forest cover. Near the base of the zone there is another short-lived rise in grass pollen similar to the one in zone BB3, which may indicate renewed clearance by communities living in the immediate area.

At the very top of zone BB4 can be seen a sudden drop in the percentage of elm pollen. This fall could well represent what is traditionally known as the elm decline. It is dated, in most instances, to approximately 5000 bp and is often taken to herald the emergence of Neolithic farmers. The nature and possible causes of the elm decline in North West Europe have been the subject of much discussion (Birks, 1972). Most agree that the decline in elm in pollen diagrams is owing to a decline in pollen

production by elm trees because of disease, pollarding, reduced vigour in unfavourable ecological conditions or removing of elm trees by felling or ring-barking. A purely climatic cause such as a spell of cold winters (Iversen, 1960) has been much discussed and rejected by many, for example Walker (1966). It seems generally accepted that human interference with the forest had some part to play in the elm decline. Walker (1966) pointed out that the elm decline was often particularly severe near sites of known Neolithic activity. It is known from the work of Clark and Godwin (1962) that the coast of Western Britain saw some of the earliest known Neolithic settlement; Brighthouse Bay would have been ideal for such a settlement.

There is a rise in grass and other herbs at the elm decline, suggesting that there may have been some forest clearance associated with it, but this is short lived and in the sample above the percentages fall again. Robinson and Dickson (1988) in their discussion of a pollen diagram from Machrie Moor on Arran, state that a decline in Neolithic agriculture after the elm decline is quite widespread.

#### **Zone BB5**

In this zone there is a substantial decline in oak pollen, suggesting that it has become a much less important component of the forest in the Brighthouse Bay area. Elm pollen frequencies remain low, and in addition there is a substantial rise in the importance of alder, and the number of spore-bearing plants, particularly bracken and other ferns, increases.

At Brighthouse Bay the spread of bracken and other ferns is likely to indicate an opening of the forest canopy, although the main indicator of the opening of the canopy, the expansion of grasses, does not occur until later. This delay is not, however, unusual; at Racks Moss, Aros Moss and Snibe Bog the rises in grass pollen does not occur until some time after the elm decline. It would therefore appear that the decline in elm pollen did not coincide with the large scale clearance of forest; it must have come later, as suggested by Robinson and Dickson (1988).

#### **Zone BB6**

This zone is the uppermost of the six zones. Here there is much evidence of human activity, with dramatic falls in all types of tree pollen and equally dramatic increase in grasses, other herbs and mosses. The grass pollen includes isolated cereal grains, whilst other herbs present include plantains, Compositae, Chenopodiaceae, Umbelliferae and Rumex, all indicators of the clearance of the forest by prehistoric communities and the expansion of farming. In addition, the proportion of ferns generally remains high. These changes indicate the widespread adoption of farming are typical of the upper zones of Postglacial pollen assemblages and can be seen at Snibe Bog, Loch Dungeon, Moss of Cree, Bigholm Burn, Aros Moss and Racks Burn. The exact nature of the composition of each varies quite substantially owing to variations in local site conditions. Lowland sites are likely to have been exploited most and to have suffered the greatest depletion in the forest, whilst upland sites will have been affected less.

An unusual aspect of Zone BB6 is its short duration; only 25cm, 10cm of which was turf and soil which was not sampled for pollen. If the elm decline at Brighthouse Bay is coincident with the elm decline which is dated elsewhere to approximately 5000 bp, then 5000 years are represented in a total of only 45cm of sediment. Below the elm decline only ca. 2000 years are represented in a total of 165cm. There are several possible explanations for the apparent change in the rate of peat formation:

1. Peat formation slowed down dramatically at or soon after 5000 bp. However, workers at other sites have not generally found this to be the case, and there is no visible change in sediment composition; this might be expected in the case of such a sudden change.
2. Peat stopped forming at the top of zone BB6, perhaps because of farming activity, which clearly increased substantially at the zone BB5/BB6 boundary.

- The area from which the core was taken has been cut for peat in the past, and thus the most recent peat has been removed. This is perhaps the most likely of the three explanations.

## Conclusion

Deposition of peat at Brighthouse Bay began approximately 6500-7000 years ago after sea levels, which had reached their maximum level relative to the level of the land, began to fall in relation to the land. The pollen in the peat shows evidence of initial salt marsh development and then a fairly stable forest cover comprising predominantly hazel, oak and alder. Pine, birch and elm were also significant elements of the forest. Prior to the elm decline at, it is thought, approximately 5000 bp, two possible small-scale Mesolithic clearances are indicated by rises in herbaceous pollen and ferns. However, lasting clearance of the forest did not begin until at least 5000 bp, and did not gather speed until later still. This picture of high sea levels in the Mid Postglacial, cover of the land with mixed deciduous forest and subsequent clearance by prehistoric communities is found elsewhere in South West Scotland.

## CORE 2

### Stratigraphy

Metres

O.D.

9.60		Ground level
	Column	
9.32	0-4cm	Dark brown silt with organic content
	4-10cm	Brown grey silt with little organic matter
	10-20cm	Light brown grey silt with very little organic matter
	20-40cm	Dark brown silt with organic matter
	40-50cm	Light brown-grey silt with some organic matter
	50-60cm	Light brown-grey silt with a little organic matter
	60-70cm	Light brown-grey silt with some sand
	70-75cm	Light brown-grey sandy silt
8.56		Clay

### Results

cm	Betula	Pinus	Ulmus	Quercus	Alnus	Corylus	Salix	Poly-podium	Filicales	Total land pollen counted
5	No pollen									
15	No pollen									
25	No pollen									
35	4.5%	3.2%	5.2%	8.4%	54.1%	24.5%		18.7%	21.9%	155
45	3.3	4.9	3.0	8.2	27.0	26.3	0.3	11.8	16.8	304
55	4.1	5.4	4.8	15.6	39.5	30.6		8.8	10.2	147
65	No pollen									
75	2.0		2.0	6.2	43.7	45.8		12.5	20.8	48

The core was composed largely of silt and yielded little pollen. The pollen that was present was badly degraded. Eight samples were taken at regular intervals and prepared for pollen counting. The samples at 5, 15, 26 and 65cm revealed little or no pollen. Samples at 35, 45, 55 and 75cm yielded

between 26 and 80 grains on a slide. It was decided that further samples should be prepared for the sediments at 35, 45, 55 and 75cm. These were treated with hydrofluoric acid to help remove the silt. Counting of the new samples did reveal more pollen. Pollen was not counted to the normal total of 300 because of the poor quality of the information.

### Interpretation

The pollen assemblages from the middle and base of the core all contain high percentages of alder. This suggests that the base of the core post-dates the postglacial rise in alder dated to 6800-7500 bp in the Solway Firth area. The total dominance of the pollen spectra by tree pollen and associated lack of herbaceous pollen suggest little human activity. The significant element of elm cannot be ignored and it is likely that the sediments at, and below, 35cm all predate the elm decline, commonly dated to 5000 bp.

### CORE 3

#### Stratigraphy

Metres

O.D.

9.50		Ground level
	Column	
9.00	0-5cm	Sand
	5-25cm	Dark brown clay with organic matter (peaty clay)
	25-40cm	Mid to dark brown clay with organic matter (peaty clay)
	40-75cm	Very dark brown peat with clay (clayey peat)
8.11		Clay

Pollen samples

No	Depth	Pollen counted
1	5cm	50 grains
2	15	50
3	25	52
4	35	56
5	45	150
6	55	67
7	65	87
8	75	325

#### Pollen counting and identification

In all but sample 8 pollen was very scarce. Normally 200 grains are counted per sample. Therefore there is some statistical unreliability in the counts. The core does have several similarities to the analysis of core 1, although it does not cover such a long period of time.

#### Analysis of Core 3

##### Zone 1 (75-550cm)

This zone is dominated by oak, alder and hazel with birch, pine and elm also present. The zone would appear to equate with BB4 of Core 1. The vegetation cover is typical of the forest that dominated southern Scotland in the mid post glacial. Grasses are present in significant quantities, especially at 65cm and they may indicate local clearance of the forest by Neolithic communities. A similar expansion of grasses is seen in BB4 of Core 1.

The age of the base of zone 1 is difficult to estimate. The presence of significant quantities of elm pollen suggest it is at least 5000 years old. However, it is unlikely that the sediments date to before 7,500 bp as there is no sign of the rise in alder pollen dated to the period 6800-7500 bp in the Solway Firth.

#### **Zone 2 (50-10cm)**

Alder and hazel dominate this zone, oak becomes a less important component of the forest, whilst birch and pine decline rapidly in importance and elm declines completely. This sudden drop in elm pollen at the zone 1/2 boundary is likely to represent the elm decline dated in most cases to 5000 bp.

The almost continuous presence of grasses in zone 2 suggests that the forest was not entirely closed and it is likely that there was some Neolithic clearance. The zone appears to correlate with BB5 in core 1.

#### **Zone 3 (10-0cm)**

This zone is dominated by non-tree pollen, especially grasses, plantains and compositae. Total tree pollen falls to less than 20%. The zone is likely to represent the clearance of forests in recent centuries, although the absence of coniferous pollen suggest that the most recent sediments have not been sampled. The zone appears to correlate with BB6 in Core 1.

### **MARINE SHELLS**

Two samples of shells were obtained from the site. These were taken from a shell midden 7, the other came from the buried soil of Roman date containing shell midden material and ploughmarks, 9.

Both samples were collected with sand and soil and were treated by wet sieving through 4mm and 1mm sieves. The marine shells were identified by looking at the contents of the larger sieve. Total numbers of each species were then counted and the results presented below.

Sample	Periwinkle	Limpet	Dog Whelk	Scallop
9	1468	10	1+2 frags	1 frag
7	108	84		

The analysis of the contents of the two middens bears out the visual impression from the surface of the other middens located at Brighouse Bay. That is individual middens were dominated by one particular species of shell collected and deposited in that location. There is a strong possibility that the shell middens recorded on site are the result of single episodes of shellfish collecting and processing. The small size of the middens and limited range of species present would support this interpretation.

No evidence of other signs of human activity such as hooks or fish bones were seen in the sieved samples. The calcareous environment of the midden should have protected such evidence, if present.

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# ROMAN INSCRIPTIONS AND SCULPTURE FROM BIRRENS: A REVIEW

by  
Lawrence Keppie

## 1. Introduction

Birrens has yielded a rich array of inscribed and sculptured Roman stones, more than any other Roman site in Scotland. Some 40 out of 172 entries in the Scottish Fascicule of the *Corpus of Roman Sculpture* (Keppie and Arnold 1984) come from the site, as do 32 out of some 150 inscriptions on stone reported in the Scottish section of *The Roman Inscriptions of Britain*, vol. 1 (Collingwood and Wright 1965) and a supplementary paper (Keppie 1983).<sup>1</sup>

There are a number of reasons why Birrens could have yielded such a relatively large number of stones: the length of occupation (probably longer than any other known Roman site within the modern political boundaries of Scotland), with use in the Flavian, Hadrianic and Antonine periods; the fact that all the internal buildings in the Antonine period were of stone, as were some buildings in a substantial west annexe; the alertness of local antiquarians; and pure chance. In fact all these factors have contributed.

Many of the antiquarian accounts of the site from the 18th century include references to inscribed and sculptured stones (Gordon 1726, 18; Horsley 1732, 114; Maitland 1757, vol.i, 192; Pococke 1887, 6, 33f; Pennant 1776, vol. 2, 92f). By the 1770s their number was already considerable (*RIB* 2091, 2093, 2094, 2096, 2097, 2102, 2103, 2108, 2114-16). More stones were recovered in 1810-12, perhaps in the course of agricultural operations (*RIB* 2098, 2100, 2104, 2107, 2109). The excavations of 1895 added to their number (*RIB* 2092, 2099, 2110-12), though the work in 1937 and 1962-69 made only modest additions to the total (*RIB* 2105; Keppie 1983, 399, nos. 1-3). Birrens has yielded stones in all three main categories of inscriptions found in Scotland: commemorative slabs, or fragments thereof, testify to building work and identify its authors; altars and sculptured reliefs honour a variety of Roman and Celtic deities - the dedication to Brigantia is especially well known (*RIB* 2091; Keppie and Arnold 1984, no. 12); and there is at least one tombstone to a soldier who died while posted to the northern frontier (*RIB* 2115; see also Keppie and Arnold 1984, nos. 22-24; below, p.44). There must surely have been extensive cemeteries along the roads leading away from the fort.

## 2. Birrens and its garrisons

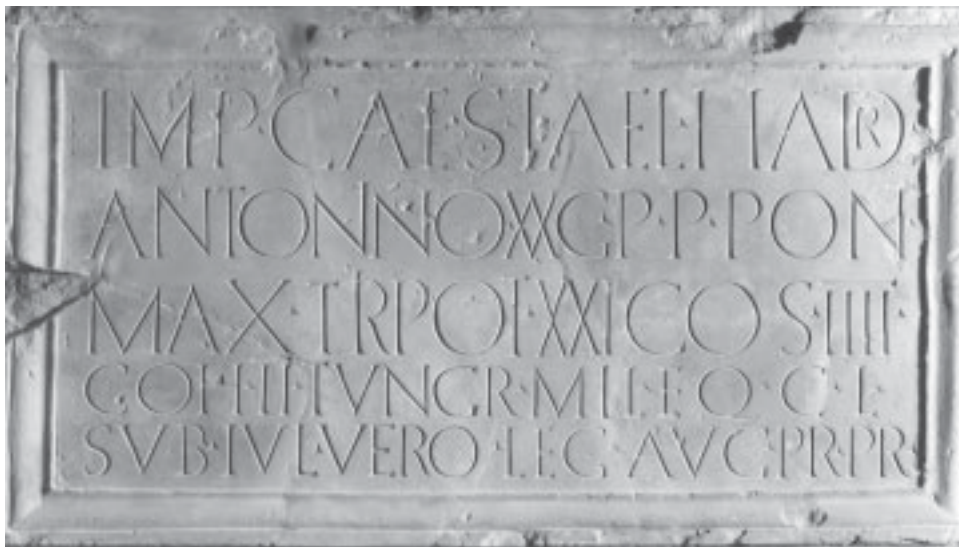
The site at Birrens, the Roman *Blatobulgium*, was first occupied in the Flavian period, from c. AD 79 onwards (Robertson 1975, 277ff). Little is known about its layout at that time, but the internal buildings were presumably of timber, and so would not rate commemoration in stone. Under Hadrian, presumably in or soon after AD 122, a new fort was constructed on the site; its central buildings seem likely to have been of stone. However, the visible fort and its internal buildings all date from the Antonine period. High quality workmanship characterised those buildings erected in AD 142 (Antonine 1); they were destroyed, perhaps by enemy action, c. AD 155. The replacement stone buildings in the Antonine 2

1 There is necessarily some overlap between the two assemblages.

period, datable to AD 158 onwards, were of a much poorer quality. Occupation lasted until about AD 180-84. A Severan reoccupation in AD 208-211, and indeed later occupation down to the 4th century, were advocated by Professor Eric Birley (1938, 293f, 345) who excavated at Birrens in 1936-37, on both epigraphic and ceramic evidence; but his arguments were rejected by Sir George Macdonald (1939) and received no confirmation from the work of Professor Anne Robertson, the excavator in 1962-69. Finds later than the Antonine period were manifestly lacking (Robertson 1975, 286).

We do not know the garrison of Birrens in the Flavian or Hadrianic periods, but in the Antonine 1 phase the garrison seems likely to have been the *cohors I Nervana Germanorum* (RIB 2093, 2097; Robertson 1975, 95, no. 1 = Keppie 1983, 399, no. 2); and in the Antonine 2 phase it was the *cohors II Tungrorum* (RIB 2092, 2094, 2100, 2104, 2107-10, 2115; below, p.46). Legionaries are also attested at Birrens: soldiers of legion VI *Victrix* were involved in the construction of stone buildings (RIB 2112-13); but their work, which presumably belongs in the second century, cannot be precisely dated. Pennant noted a building stone at nearby Hoddom Castle (see below), recording work by *legio XX Victrix* (1776, vol. 2, 407, no.1); it has since disappeared, and the reading of the text is disputed (RIB 2114). Another stone listed by Pennant at Hoddom was a building record in honour of Hadrian, erected by the *legio II Augusta* (Pennant 1776, vol. 2, 409, no. 10). Normally considered identical to a slab from Netherby (RIB 974), its attribution to Birrens was supported by Birley (1960, 143f), so identifying the builders of the Hadrianic fort there.

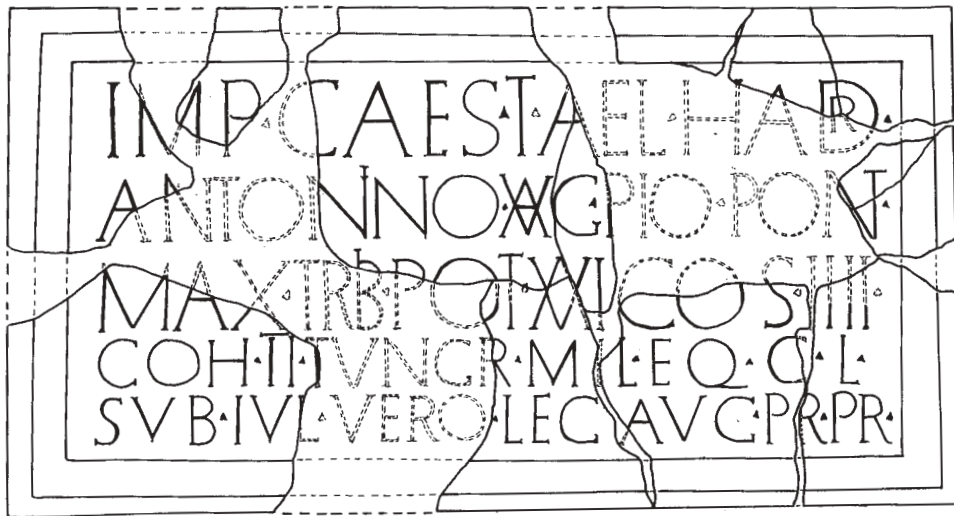
A fragmentary slab found during excavation of the *principia* in 1895 (RIB 2110) is perhaps the most historically important of all the inscriptions from the site; certainly it is the most closely dated (Fig. 1). Macdonald and Barbour (1897, 23) give an account of the discovery of the fragments: ‘the most important outcome [of the excavation of the internal buildings] was the discovery of a finely built well, situated within the court of the praetorium, which yielded first a beautiful altar ... dedicated to the military discipline of the Em-



1. Inscribed slab from Birrens (RIB 2110), as restored 1979-80. Photo: National Museums of Scotland.

peror [RIB 2092], and next a number of fragments of a historical tablet. Other fragments of the tablet were found within the praetorium, as was also another but uninscribed altar.....The disciplina altar, weighing upwards of half a ton, was brought up out of the well, with the aid of block-and-tackle, by the united efforts of twelve workmen, and immediately conveyed to the railway station for transit to Edinburgh lest injury be done to it. The rumour of its discovery, however, got abroad, with the result of an inconvenient influx of visitors. The fragments of the inscribed tablet were carried up the ladder used at the well, one after another, and laid out in their order by one of the workmen, whose face expressed the intelligent satisfaction which he took in the discovery. The panel was found to furnish a date; and the name of an otherwise unknown Roman governor of Britain had appeared upon it, but his family name was, unfortunately, wanting. With the view of supplying this, much earth was turned over a second time, resulting in the discovery of another small fragment, without, however, securing the piece specially desired.'

The slab was presumably set into a wall of the *principia* itself, most obviously above the entrance-way from the *via principalis*. Sir George Macdonald, in his very valuable discussion of the stone and its findspot (1939, 254-72), draws attention to the relative sharpness of the lettering, which cannot have been long exposed to the elements. The slab, or at least the lettering, might perhaps have been painted, or shielded from the elements by an overhanging roof; no evidence of paint in the lettering can be seen on the surviving fragments. The findspots suggest that when occupation ended, the slab fell, or was levered from position, during demolition work by Roman troops, with the well serving as a convenient repository of unwanted material, as at Bar Hill (Robertson, Scott and Keppie 1975, 12ff).<sup>2</sup>



2. Inscribed slab from Birrens (RIB 2110). Scale: 1/10. Drawn by L Keppie, from a photograph in Macdonald & Barbour 1897, and with reference to the stone on display in the Royal Museum of Scotland, Edinburgh.

2 The uninscribed altar referred to in the text was found at Birrens on the steps leading down to the underground strongroom below the *aedes principiorum* (Keppie & Arnold 1984, no. 17).

The fragments were promptly placed in a wooden frame and the missing letters restored, on the authority of James Macdonald (Macdonald and Barbour 1897, 65, no. 22). The slab can presently be seen on a wall of the Roman Room in the Royal Museum of Scotland (formerly the National Museum of Antiquities of Scotland), Queen St., Edinburgh; shortly it will be transferred to the new Museum of Scotland, Chambers St. Rather different readings were proposed by Haverfield (1903, no. 1230; 1904, 455), and by the editors of *RIB* I (Collingwood and Wright 1965, no. 2110). The present writer has scrutinised the text afresh in the Royal Museum, with the aid of a photograph taken soon after the excavation (Macdonald and Barbour 1897, plate 1), and has prepared a new line-illustration (Fig. 2). Given the numerous, often quite unusual instances of the linkings or ligaturings of letters, it is impossible to be certain of the restorations, but the following seem to me most probable: *Imp(eratori) Caes(ari) T(ito) A[el(io)] Hadr(iano) / An[to]nino Aug(usto) [Pio po]nt(ifici) / Max(imo) [tr]ib(unicia) pot(estate) XXI co(n)s(uli) IIII / coh(ors) II [Tung]r(orum) m[i]ll(ia) eq(uitata) c(ivium) L(atinorum) / sub Iu[l(io) Vero] leg(ato) Aug(usti) pr(o) pr(aetore)*. 'For the emperor Caesar Titus Aelius Hadrianus Antoninus Augustus Pius, chief priest, holder of tribunician power 21 times, consul four times; the Second Cohort of Tungrians, one thousand strong, with a cavalry attachment, Latin Citizens, under Julius Verus, the emperor's legate with powers of a praetor.' The text given here follows *RIB*, except that in line 5, the name of the governor must be abbreviated to IVL VERO rather than IVLIO VERO. The only uncertainty is in line 2, where one element in the standard titulature of Antoninus has been omitted. The normal sequence would ordinarily include both PIO and PP (for *patri patriae*); there is clearly room here for only one of these two. I prefer to read PIO, given that, on many other inscriptions of the period, PP can appear much later in the sequence of titles, and may have been intended to appear in line 3.<sup>3</sup> The reading PP was preferred, on the advice of R.P. Wright, when the slab was restored in 1979-80, at the Royal Museum of Scotland.<sup>4</sup>

The slab was erected while the emperor was holding the tribunician power for the 21st time (i.e. Dec. 157-Dec. 158), that is, in effect, during the 21st year of his reign; and in the governorship of Cn. Julius Verus (Birley 1981, 118-21). Effectively this text dates the beginning of the second Antonine occupation at the site, and identifies the authors of the rebuilding work as the *cohors II Tungrorum*, which subsequently garrisoned the fort. The precise dating of an inscription by citation of the emperor's *tribunicia potestas* can be found on important civic inscriptions (*RIB* 288), on milestones (*RIB* 2244, 2286), and on military inscriptions erected by the legions (*RIB* 667, 1149). Its use by auxiliary regiments in Britain is, the Birrens example excluded, attested only from the early 3rd century onwards (*RIB* 1205, 1235, 1278-80, 1705, etc.). The Birrens slab is the only inscription in Scotland to be precisely datable in this way.

Uncertainty has surrounded the interpretation to be placed on the letters CL which follow the name of the cohort in the penultimate line. Thomas Hodgson, as long ago as 1832,

3 See *RIB* 2200, 2205 for the omission of PIO; *RIB* 1147 for the omission of PP; for PP in different positions, see *RIB* 665, 397, 330, 739, 2265.

4 In line 3, the RMS reconstruction has TRI POT. The ligatured letters partially visible on the stone most obviously represent IB (in that order), thus allowing the reading TRIB, though *RIB* 2195 offers a parallel for RI. It may be wondered, on the reconstruction drawing offered as Fig. 2, whether the letters TR should also be ligatured.

proposed an expansion to *Civium Latinorum* ('Latin citizens'), an honour conferred on members of the cohort (Hodgson 1832, 86). This was a unique designation (Holder 1980, 50f); reference to an award of full Roman citizenship is much more common, in the form *Civium Romanorum* ('Roman Citizens'). Such titles reflected an award made to a regiment, perhaps after bravery on the battlefield, by which all its current members gained citizenship ahead of the grant normal at the conclusion of their service.

The letters C L recur on other inscriptions from Britain naming the *cohors II Tungrorum* at Birrens itself (*RIB* 2092, 2104) and at Castlesteads (*RIB* 1981-83). Some years ago H. Wolff proposed an alternative expansion, to the phrase *coram laudata* (Wolff 1976 with *AE* 1956, 124), to be translated as 'praised personally' (i.e. by the emperor). This however would surely have been incomprehensible even in Roman times. The traditional explanation seems preferable, if not wholly convincing.<sup>5</sup>

### 3. The Hoddom connection

It is clear that not all the Birrens material reported by early antiquarians was seen at the fort itself. A few stones were to be met with at adjacent farms and country houses, to which, it is clear, they had been carried upon discovery: Middlebie village (*RIB* ?2106, 2116); Springkell (*RIB* 2098); Burnfoot (*RIB* 2095, 2104; Keppie and Arnold 1984, no. 20); Land farmhouse (*RIB* 2101; Keppie and Arnold 1984, no. 24).

Several are first reported at Hoddom some 4 miles (6 km) to the south-west, their number recently augmented by fresh discoveries (below). The Anglian monastery complex near Hoddom Bridge, 6 kms (4 miles) to the west-south-west of Birrens, was unknown until the 1990s, though many Anglian monumental sculptures had come from the site; the ruin of the associated church was the site of excavations in 1915 (RCAHMS 1920, 93, no. 271). In 1609, with the amalgamation of the parishes of Hoddom, Luce and Ecclefechan, a new parish church was built in a more centrally convenient position at Hoddomcross, 2 km further north-east (Yorstoun 1845, 289). This second church had become ruinous by 1760 (Pococke 1887, 34), and was demolished in 1817 (Yorstoun 1845, 289), to be replaced by a new building on the same site, itself destroyed by fire in 1975. There were thus three churches; material from Birrens has been seen at, or recovered from, all of them (Radford 1953; Lowe 1991).<sup>6</sup>

An altar to Jupiter erected by a prefect of the *cohors I Nervana Germanorum* (*RIB* 2097) was preserved at the 17th century church (Yorstoun 1845, 292; Wilson 1962, 353); we could perhaps suppose that it was transferred from the original church at Hoddom Bridge. Subsequently it was moved to the porch of the 19th century church, and after the disastrous fire in 1975 what remained of it was taken into the safekeeping of Dumfries Museum.

In 1915, an inscribed building stone recording building work by legion *VI Victrix* (*RIB* 2113) was found built in to the south wall of the original church at Hoddom Bridge during excavation (RCAHMS 1920, 94, no. 271 with fig.). There was a third stone, assuming that

5 Had the designation C L occurred only once, and without interpuncts between the letters, a case might have been made for supposing they were the numerals CL, i.e. 150, the size of the cavalry contingent within the cohort!

6 I am very grateful to W.F.Cormack for clarifying the building sequence, which is often presented confusingly in the secondary sources, and thus saving me from serious error.

neither of those just mentioned is to be identified with the ‘pieces of an imperfect Latin inscription, which is so much defaced that I could make nothing of it’, which Pococke saw at the ‘ruined Church of Hoddam’ (sic), i.e. the early 17th century church, in 1760 (Pococke 1887, 34).

Hoddom Castle, originally a substantial tower house of the mid 16th century, was much enlarged in the early 19th century (RCAHMS 1920, 38, no. 90, figs. 33-34; Maxwell-Irving 1987). In 1760, one part of a substantial commemorative slab, on which winged victories held a large laurel wreath (below, p.42), was observed built into a wall at the Castle (Pococke 1887, 33 with fig.); interestingly, two other fragments from the same slab were found during excavation in the courtyard of the headquarters building at Birrens in 1895 (see Keppie and Arnold 1984, no. 26). Pococke also mentions an altar ‘with an inscription on it, which has not been published’, but fails to provide any details (Pococke 1887, 34). A tombstone, several altars and a dedication to Fortuna, ‘found in the station at Burrens’ (sic), are recorded by the traveller Thomas Pennant at Hoddom Castle in 1772 (Pennant 1776, vol. i, 93; vol. ii. 407ff; Birley 1960), some of them built into its fabric (see *RIB* 2093, 2094, 2096, 2108, 2114, 2115, 2116). Though a suspicion could now arise that for many of the Hoddom Castle items the actual findspot was the nearby church at Hoddom Bridge, or the then unsuspected monastic buildings (below, p.44), the correctness of Pennant’s information is confirmed, in one case at least, by the fact that one of the altars was seen at Middlebie (i.e. Birrens) in 1757 (Lukis 1887, 435; *RIB* 2093). Professor John Anderson, writing in 1773, refers in passing to an altar, probably *RIB* 2096 or 2108, as being then “at Mr. Sharp’s of Hotham” (sic) (Roy 1793, 203).

Towards the middle of the 19th century, one of the altars reported by Pennant (*RIB* 2093), and three more then displayed at Hoddom Castle, but found at Birrens c. 1812 (*RIB* 2100, 2107, 2109) - in fact the pick of the collection at the Castle - were taken to the Edinburgh residence of Charles Kirkpatrick Sharpe, the then owner of Hoddam (Wilson 1851, 398f; Chambers 1875, 340f). On his death in 1851 they passed to the University of Edinburgh, and in 1866 to the Society of Antiquaries of Scotland. They are now on display at the Royal Museum of Scotland, Queen Street, Edinburgh. Some material was preserved for a time at Knockhill House near Hoddom Bridge (*RIB* 2094, 2115; RCAHMS 1920, 102, fig. 76.), in a summerhouse, together with Anglian cross-slabs.<sup>7</sup> In 1951 the remainder of the Hoddom collection, including two further altars and a gravestone, was placed on loan in Dumfries Museum (*RIB* 2108, 2115, 2096).

The Church and the Monastic site at Hoddom Bridge have also yielded uninscribed building stones, some with diamond broaching, channelled stones for drainage, and flat slabbing, which must also have come from Birrens (RCAHMS 1920, 94; C. E. Lowe, pers. comm.). Very clearly there was a major transfer of building materials from Birrens to Hoddom when the Anglian complex was being constructed.

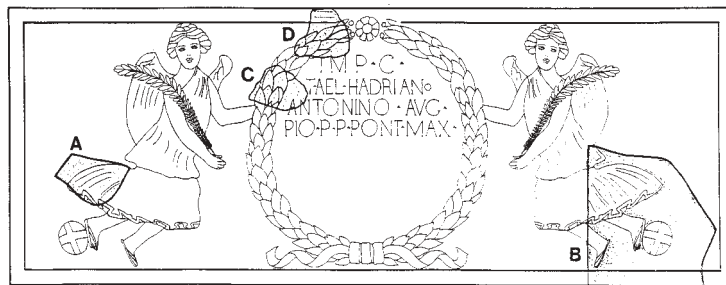
7 ‘They have now been released from this position by E. J. Brook, Esq. of Hoddom and, whatever their final destination, are meantime carefully preserved’ (RCAHMS 1920, loc.cit). The transfer to Hoddom led to the destruction of the Anglian slabs, and seemingly also *RIB* 2094, during wartime in 1943.

#### 4. Restoration of fragmentary slabs

One feature of the Birrens corpus, immediately apparent in the plates appended to *Birrens and its Antiquities* (Macdonald and Barbour 1897) and in the *Corpus of Roman Sculpture* (Keppie and Arnold 1984), is the number of fragments, often very small, deriving from much larger slabs. Many cannot be assigned to a particular category, whether grave-stones, altars or commemorative slabs. However, several fragments show the curving *pelta* motif, pairs of which served to flank the text on a commemorative slab and emphasise its central position (Macdonald and Barbour 1897, plate IIIA; Robertson 1975, 97ff; Keppie and Arnold 1984, nos. 29-30, 32). Part of a *pelta*-ornamented panel was picked up on the site of Birrens fort in 1941 (Keppie and Arnold 1984, no. 31); the motif also appears on one of the newly discovered Hoddom fragments (below, p.47).

The *pelta* motif represents the view in profile of a crescentic shield used by Thracian mercenaries in Greek and Hellenistic times, and was popular among Roman sculptors, especially in friezes of weaponry. The use of a pair of *peltae* to flank an inscribed panel was particularly popular in the second century AD, during the Antonine age and after (Thompson 1968). It appears frequently on the distance slabs from the Antonine Wall (Keppie 1979), and elsewhere in North Britain. Often the *pelta* horns terminated in bird-heads, the latter being normally identified as griffins.

The preparation of the Scottish fascicule of the *Corpus of Roman Sculpture* in the early 1980s encouraged the present writer to attempt some restorations based on the fragmentary material. Four of the fragments belonged to a large commemorative slab (Fig.3), on which Victory figures supported a laurel wreath (Keppie and Arnold 1984, no. 27, plate 10). Fragment A shows some part of the lower draperies of a female figure and Fragment B shows a pair of legs and feet, wearing sandals, and the edges of similar drapery, where it is clear that the figure is facing towards the left. The right foot rests upon a globe on which crisscross bands can be seen. The left hand edge of this fragment is neatly dressed, suggesting that the slab, when complete, was made up of several panels. The imagery is fairly common, and other examples can be cited from Northern Britain (Phillips 1977, nos. 44, 94, 96, 295, 299; Coulston and Phillips 1988, no. 272; *RIB* 1093, 1227, 1234, 2208). The normal representation is of Victory, winged, with one foot astride a globe, the symbol of her dominion.



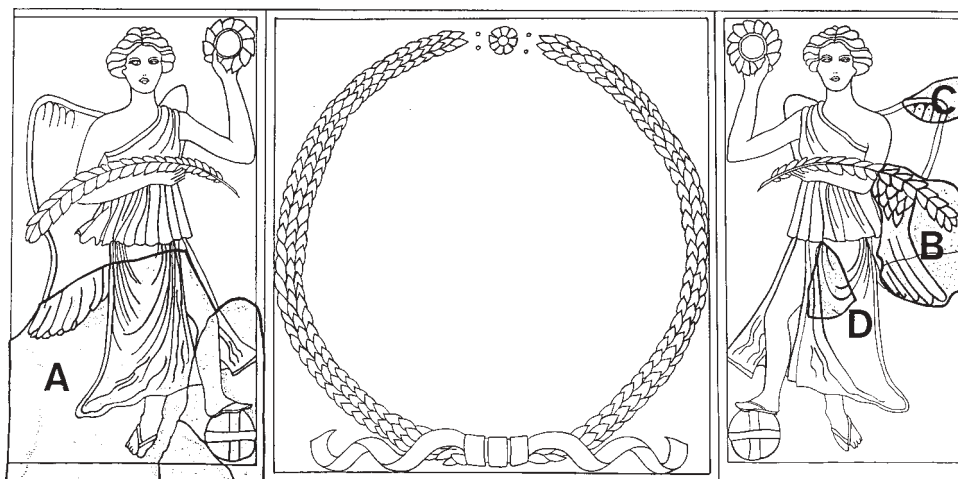
3. Sculptured slab from Birrens showing two Victories supporting a laurel wreath (Keppie & Arnold 1984, no. 27). Scale: 1/20.

Drawn by Avril Mackenzie (Hunterian Museum). Reproduced by permission of the British Academy.



Belonging with these two pieces are an inscribed fragment (C on Fig. 3), published as *RIB* 2111, where the letter M was read. Closer inspection suggests that a better reading would be AN (Keppie 1983, 391, no. 1). There a second fragment of the same wreath preserved in the Royal Museum of Scotland (Fragment D on Fig. 3) on which the upper serifs of a single letter, perhaps M, can be made out, along with part of the outer moulding of the slab. All four fragments were found during excavation in 1895: the two sculptured fragments of Victory (A and B) were found ‘in cleaning out the foundations of one of the buildings next to the central roadway, towards the west side’ (Anderson, in Christison et al. 1896, 196); the two inscribed fragments (C and D) are given no provenance. Fig. 3 offers a reconstruction. When complete the slab must have been just over 1.9 m long and about 0.77 m high. The inscription can be restored to show a dedication in honour of the emperor Antoninus Pius: “For the emperor Caesar Titus Aelius Hadrianus Antoninus Augustus Pius, father of his country, chief priest.....”. It is likely that another four or five lines have been lost.

A very similar, but much larger relief (Fig. 4) is represented by a separate group of fragments of which the first (A), already referred to (above, p.40), was first reported in 1760, built into a wall at Hoddom Castle (Pococke 1887, 33 with fig.; Macdonald in Christison et al 1896, 122, fig. 5), and two other fragments (B and C) were recovered from the courtyard of the headquarters building during excavation in 1895. A fourth fragment (D) was found during the same excavation without a precise findspot being reported (Keppie and Arnold 1984, no. 26; plate 9). Fragment A preserves the lower part of a winged female figure, evidently Victory, facing towards the right with flowing draperies and one leg bare. On her feet a simple pair of sandals is held in position by thongs. Her left foot rests upon a globe bearing the familiar crisscross bands. Below is a plain broad moulding with rather narrower mouldings to the right and possibly to the left. Fragments B and C preserve parts of the wing of a similar Victory figure facing towards the left, and fragment D seems to be



4. Sculptured slab from Birrens showing two Victories supporting a laurel wreath.

(Keppie & Arnold 1984, no. 26). Scale: 1/20.

Drawn by John Callan (Hunterian Museum). Reproduced by permission of the British Academy.

a portion of her draperies. Across the wing is the stem of a palm frond, held at breast height. The fragments derive from a large commemorative slab, probably in three separate panels. No part of the inscription itself survives. When complete, the slab must have been just over 2.5 m wide and 1.2 m high.

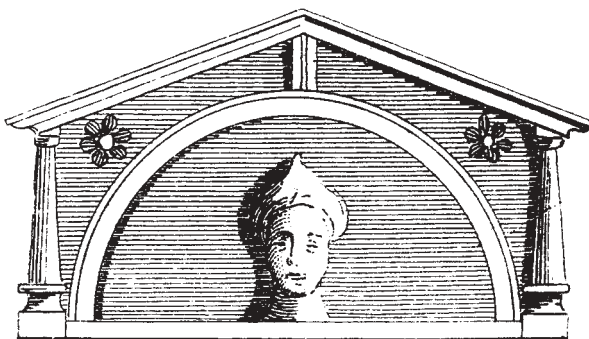
We cannot tell from the surviving fragments which military unit or units had been responsible for the dedication of either slab, but, given that they must be likely to belong in the fort's final phase, attention might well be directed towards the Second Cohort of Tungrians, already attested many times at the site. If this were the case, the slabs would date to the beginning of the Antonine 2 phase of occupation of the site, i.e., from AD 158 onwards. However, they are certainly the work of two different craftsmen.

A number of the fragments from Birrens are likely to belong to monuments of a religious significance. Parts of what is a human head, apparently female, perhaps to be identified as Minerva, in high relief within a gabled niche, were found during excavation in 1895 (Macdonald and Barbour 1897, plate IIIA, fig. 22). The head is tilted upwards and to the right with full lips, protruding eyes and wavy hair (Fig. 5). The figure wears a helmet with



5. Sculptured panel from Birrens (Keppie & Arnold 1984, no. 10).  
Reproduced by permission of the National Museums of Scotland.

a crest falling away to the left. To the right, at an awkward angle, is the top of what may be the shaft of a spear or torch. This description, which is taken from the entry in the *Corpus of Roman Sculpture* (Keppie and Arnold 1984, no. 10), assumes that the gable angle at the top of the fragment is a sure guide to its overall orientation. But some may feel that the fragment may better be interpreted if what is preserved here is the top left corner of a rectangular slab, with the female head angled sharply upwards.



6. Sculptured panel from Birrens (Keppie & Arnold 1984, no. 23). Now lost.  
Reproduced from Pennant 1776.

The fragment calls to mind a stone known only from a drawing by Pennant, which he reports as being at Hoddom Castle in 1772 (Pennant 1776, vol.2, 407, pl. xlv). Within a gabled niche a human head, perhaps helmeted, has its neck set directly on the lower moulding (Keppie and Arnold 1984, no. 23). Whether this should be seen as a religious item, or a gravestone commemorating a member of the Birrens garrison, is unclear (Fig. 6).

### 5. The new fragments from Hoddom

Two inscribed fragments, recovered in 1991 during excavations of the Anglian monastic site at Hoddom, are welcome additions to the corpus of epigraphic material (Lowe 1991, 21ff, figs. 7, 8). There can be no real doubt that they derived from Birrens. A full description



7. Fragment of slab from Hoddom Bridge. Scale: 1/4. Drawn by L. Keppie.  
Reproduced by permission of AOC Scotland, Ltd.

and discussion will appear in due course, as part of a monograph on the excavation. Dr C.E. Lowe, director of the excavations, has kindly allowed me to offer a synopsis here.

The first fragment is part of a religious dedication, not from an altar, but rather a building record which may well have commemorated the construction of a temple or shrine (Fig. 7). The inscription reads: .....n]umin[i...../.....]gentē P[...../.....]RIO[...../..... i.e. ‘To the divine spirit .....’. The fragment measures 0.305 x 0.37 m, and is 0.1 m thick, of local red sandstone. The lettering is extremely well cut; guidelines for the stone-cutter can be seen above and below lines 1 and 2, and above line 3.

The surviving letters in the first line disclose a dedication to the *numen Augusti*, the ‘divine power’ of a living emperor, or the *numina Augustorum*, the ‘divine powers’ of several emperors, either living or dead. The dedication in full would thus be *numini Augusti* (or *numinibus Augustorum*). In inscriptions both words are frequently abbreviated, often to NVM AVG (singular) or NVM AVGG (plural). The vertical stroke on the left hand edge of the fragment can be easily restored as the right-hand upright of the letter N. Such dedications are frequent among military garrisons and indeed in civilian contexts. The precise significance and variations in phraseology employed have been much discussed (Fishwick 1969; Birley 1986, 34ff; Fishwick 1989; Mann 1991; Fishwick 1994). Often such a dedication is joint, with the *numen* being venerated together with a god, e.g. Jupiter (*RIB* 1584-88, 1983, 2042), Vulcan (*RIB* 1700), and Fortuna (*RIB* 2217).

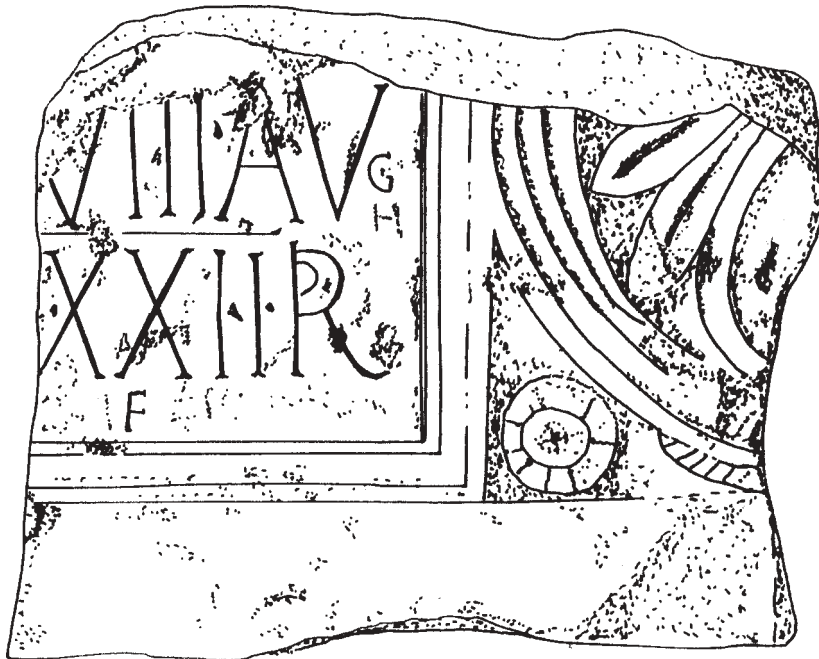
Although most dedications to the *numen* or *numina* take the form of altars, some are (as here) rectangular or square tablets which clearly fall into the category of ‘commemorative slabs’, recording building work. The context in all but a few cases is clearly religious or likely to be so (*ILS* 7051, 7053; *RIB* 193, 656, 919, 949, 1056, 1227, 1786, where the text commemorates the construction of a shrine or the dedication of a statue within it, or the renewal or improvement of facilities). In a few cases the context is not overtly religious, but appears to commemorate some general construction work, e.g. of a bath-house, a kitchen or a theatre (*ILS* 314, 5372, 5646, 5682, 7056, 7058b; *RIB* 707). In such instances the dedication to the *numen* seems little more than an alternative to the traditional dedication to the emperor himself under whose auspices or in whose honour the work has been carried out.

Birrens has already produced a dedication to the *numen* of a single emperor on a ‘statue base’ recovered in 1731 outside the fort to the west (*RIB* 2103). The dedication is a joint one, *num(ini) Aug(usti) deo Mer(curio)*, i.e. ‘to the *numen* of the emperor (and) to the god Mercury’. The latter is honoured alone on a second base from Birrens (*RIB* 2102; Keppie & Arnold 1984, no.8). These were both erected on behalf of a *collegium*, a guild of worshippers, and were found, along with with the well known sculptured relief of the goddess Brigantia (above, p.35), inside a substantial stone building, west of the fort (*RIB* 2091; Macdonald and Barbour 1897, 8f; Salway 1965, 107f). ‘It was built of squared stone, and was thirty-six feet in length and about twelve in breadth. The situation was somewhat marshy, and lay outside the fortifications of the camp, as if it stood in need of no protection from man, being committed to the care of the gods of the Romans’ (Sir John Clerk, writing in 1733, quoted in Macdonald & Barbour 1897, 9). The building lay inside the fort’s west annexe (Prevost and Birley 1960, 132; Frere and St Joseph 1983, 122f, fig. 73). A large ‘statue’, located in 1733 as a result of deliberate search, was immediately identified by Sir John Clerk as Mercury (see Keppie and Arnold 1984, no. 22). Other inscribed and sculp-

tured pieces came from the same field (*RIB* 2104; Keppie and Arnold 1984, nos. ?20, 21).

While the object of the dedication on the newly found fragment is clear, uncertainty surrounds the reading and interpretation of the surviving letters of lines 2-3. They could conceal a further dedication, or provide the name of the dedicator and, it may be, the Roman army unit to which he belonged. The only certainty here is a word ending in *-gente*, which is in the ablative case, not a dative, and evidently written out in full. It is likely to be the end of a longer word, either a surname, or a noun, or a present participle, and thus conceals the name of the dedicator, his office or rank, or an associated phrase. One restoration comes quickly to mind, but it is only superficially attractive: that *GENTE* is part of the word *AGENTE*, present participle of the verb *agere*, so allowing the restoration *CVRAM AGENTE*, i.e. 'seeing to the task' of erecting the slab. (For this phrase, see *RIB* 360, 1265; *AE* 1971, 226; *RIB* 1880, 1724, 1733, etc.). The phrase *curam agente* (and variants) would normally be followed by the name of the responsible individual, often a centurion or prefect, also in the ablative case. However, this phrase, which designates the person who had to 'see to the task', in place of a more senior official, or an army unit already mentioned, generally comes towards the end of a text.

The fine lettering closely matches, in style and quality, the text on the altar *RIB* 2092 and, less closely, *RIB* 2100, 2104, 2110. All these were erected at Birrens by the *cohors II Tungrorum*. The Hoddom text, inscribed on a commemorative slab, recorded the construction, refurbishment or repair of some building. Though it is impossible to be quite certain,



8. Fragment of commemorative slab from Hoddom Bridge. Scale: 1/4.  
 Drawn by L. Keppie. Reproduced by permission of AOC Scotland, Ltd.

it is most likely that the building was the extra-mural shrine from which other dedications were recovered in 1731. If the link with *cohors II Tungrorum* is accepted, this fragment may therefore have reported its construction (or reconstruction) at Birrens by members of this cohort in AD 158 or later.

The second fragment recovered at Hoddom in 1991 was part of a building inscription recording construction work at the fort. Of red sandstone, it measures 0.36 m x 45 m, and is 0.18 m thick (Fig.8). Badly chipped and worn, it was possibly reshaped after being carried to Hoddom for re-use.

The inscription, of which parts of the last three lines survive, was set within a plain flat moulding, and flanked to the right (and presumably also to the left) by a *pelta*-ornament (cf. above, p.40) with superimposed petal design; there is a rosette below. The horns of the *pelta* terminated in a griffin-head, of which only part of the 'mane' survives. The surviving curvature of the *pelta* suggests a vertical measurement of about 0.72 m for the slab, from which we can deduce that the inscription comprised of a total of five lines. We cannot determine the overall length of the slab, but its massive dimensions, especially its thickness, could betoken a substantial block.

The inscription reads: .....*J*[.....*leg(ionis)*] *VIII Aug(ustae)* / [.....*leg(ionis)*] *XXII Pr(imigeniae)* / *f(ecerunt)* i.e. '.... of the legion *VIII Augusta*, (and) of the legion *XXII Primigenia*..... built (this).'

The fragment thus preserves the lower right hand corner of a substantial slab naming two Roman legions, *VIII Augusta* and *XXII Primigenia*. It is most probably a record of construction work by detachments (*vexillationes*); numerous Latin inscriptions record work of this type, so that the phraseology is well attested (Saxer 1967). Neither of these two legions ever formed part of the permanent garrison of Roman Britain. The view that legion *VIII Augusta* took part in the Claudian invasion of Britain in AD 43 is now discredited (Keppie 1971). From the late first century AD onwards, legions *VIII* and *XXII* jointly constituted the legionary garrison of the Roman province of Upper Germany, with bases at Strasbourg and Mainz respectively (Ritterling 1925, 1653, 1801). Indeed the overall design of the Hoddom slab recalls an inscribed stone from Obernburg in Upper Germany, erected in AD 162 by an auxiliary regiment (Hock 1922; *AE* 1923, 80; Thompson 1968, plate XXIIb).

On the assumption that two lines of text are lost before the naming of the legions, the following restoration seems probable:

V E X I L L  
A T I O N E S  
L E G V I I I A V G  
L E G X X I I P R  
F

'Detachments of the legion *VIII Augusta* and the legion *XXII Primigenia* built (this)'.<sup>8</sup>

8 For the format, cf. *RIB* 2146.



9. Fragment of commemorative slab from Hoddon Bridge (see Fig. 8): suggested restoration.  
Scale: 1.8. Drawn by L. Keppie.

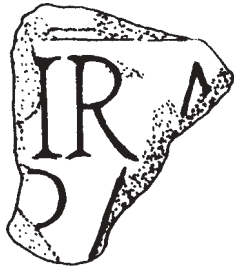
This restoration forms the basis of Fig.9. It would also be possible to offer a restoration which incorporated the titles of Antoninus Pius: IMP C HADR ANTO / NINO AVG PIO P P / VEX LEG VIII AVG / ET LEG XXII PR / F. 'For the emperor Caesar Hadrianus Antoninus Augustus Pius, Father of his Country, detachments of the legion *VIII Augusta* and the legion *XXII Primigenia* built (this)'. It is not possible, from a study of the text alone, to offer a close dating. The lettering itself, not of any high quality, recalls many of the distance slabs recovered from the line of the Antonine Wall (Keppie 1979). A dedication to Antoninus Pius (reigned AD 138-161) is, on general grounds, quite likely.

Legions *VIII* and *XXII* are known to have sent detachments to Britain on a number of occasions, when an increase in army strength was required, for example under Hadrian (*ILS* 2726) and Caracalla (*RIB* 1022, 1026). It is not difficult to identify other occasions when detachments from Upper Germany might have been needed in northern Britain: the building of the Antonine Wall in the early 140s, troubles in Britain around AD 155-57, the arrival of Calpurnius Agricola in c. 161-62, a known emergency on the northern frontier c. 180, the recovery of the province by Virius Lupus after Severus' victory in the civil war of AD 193-97, and Severus' own expedition to the island in AD 208-211.

Scotland has already yielded a slab commemorating work carried out by legion *XXII*: a stone now at Abbotsford, but seemingly from Falkirk on the Antonine Wall, records work by a *vexillat(io) leg(ionis) XXI[I] Primig[en(iae)]* (*RIB* 2216). If genuinely from Falkirk, it may have recorded construction or repair work on the Falkirk fort, or on an adjacent stretch of the Wall in the Antonine period. The name of legion *XXII* recurs on *RIB* 782 from

Brougham near Penrith; this slab, now lost, is usually interpreted as a dedication by an officer, but could in my view be a tombstone. Junius Dubitatus, a soldier of *VIII Augusta*, lost his shield in the River Tyne at Newcastle (*CIL* VII 495). These records are undated, except that they clearly belong in the second or third centuries AD. The Hoddom fragment nevertheless constitutes the first direct evidence from Britain itself for the two legions operating together in the province.

Professor Anne Robertson proposed, in her excavation report (1975, 280, 284), that the fine quality of masonry in the Antonine 1 phase indicated legionary workmanship, in contrast to the slapdash quality of the Antonine 2 buildings which could be ascribed to the *cohors II Tungrorum*. Paradoxically, inscribed stones, especially the altars, erected by the *cohors II Tungrorum*, are the finest from the site. The Hoddom fragment with the *numen* dedication belongs with them. Conversely, the poor quality lettering of the second slab records building work by legions.



10. Fragment of inscribed slab from Hoddom Bridge.

Scale: 1/4.

Drawn by L. Keppie.

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A further discovery can also be noted here. In 1994, during field walking in the vicinity of the original church near Hoddom Bridge, W.F. Cormack picked up a small inscribed fragment of red sandstone, c. 45 m east of the east churchyard wall (Fig. 10). Measuring 0.14 x 0.115 m, and 0.06 m thick, the fragment preserves part of the first and second lines of an inscribed slab, with the remnant of a border above. The following letters can be made out: ....IR A...../ .....P A..... No interpuncts are visible, but there seems to be a gap between the second and third letter of line 1, and (less certainly) between the first and second surviving letters of line 2. The nature of the dedication is quite unclear. The titles of an emperor seem an improbable restoration of what remains in line 1, and the lettering seems rather small for a gravestone. Perhaps therefore this was part of an altar or a religious dedication. A restoration [*Vi*]*r*(*tuti*)*A*[*ug*(*ustae*)], ‘to the Valour of the Emperor’, is just one of several possibilities, from a preliminary examination (cf. *RIB* 845, 1466, 2200).

## 6. Conclusion

Birrens has yielded a highly significant and important assemblage of Roman inscriptions and sculptured stones, over many years. Recent discoveries have added to their number. It can reasonably be expected that further discoveries will be made at the site, and in the vicinity of Hoddom, in due course.

## Acknowledgements

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#### Abbreviations

AE	<i>l'Année Epigraphique</i>
CIL	<i>Corpus Inscriptionum Latinarum</i>
ILS	<i>Inscriptiones Latinae Selectae</i>
RIB	<i>The Roman Inscriptions of Britain</i> , vol.1 (Oxford, 1965; vol.2 (Gloucester, 1990 onwards)

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## DOWALTON LOCH RECONSIDERED

by

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with illustrations by Marion O'Neil

and an Appendix by Katherine Eremin & Paul Wilthew

### Introduction

Dowalton Loch has a key position in Scottish archaeology, since it was one of the first crannog sites to be systematically investigated (Munro 1885, 76-77). The loch was drained in 1863, an event which excited considerable curiosity, and in the summer of that year Lord Lovaine (later the Duke of Northumberland) investigated a number of the crannogs thus revealed. This work seems to have been continued by the local landowner, Sir William Maxwell, although his results were never published (Munro 1885, 100). The site was visited the following year by John Stuart, secretary of the Society of Antiquaries of Scotland, and formed the basis of an extensive account of Scottish crannogs (Stuart 1866). Further excavations were conducted in 1884 by a group which included Robert Munro and Sir Herbert Maxwell (Munro 1885).

The lowering of the water in 1863 revealed some five crannogs and six smaller stone heaps surrounded by piles. Of these, four crannogs (fig 1c, nos 1-4) and some of the piled structures (fig 1c, no 5) were excavated to an unknown extent. Artefacts were recovered both from excavation of the crannogs and as loose finds on the loch bed.

Dates from other Scottish crannogs suggest that the complex as a whole could date from c. 500 BC into the Early Historic or Medieval period (Barber and Crone 1993, fig 1), but it is the finds from the Roman Iron Age which are most germane to the current work. As well as a range of Iron Age / Romano-British material, such as glass beads and glass armlets (Munro 1885) and a copper alloy triskele mount (MacGregor 1976, no 253), there was a limited quantity of Roman goods: from crannog 3 came Samian pottery (a sherd of a first-century Dragendorff type 37 bowl) and a melon bead (Munro 1885, figs 19 and 21), while a magnificent first-century Roman skilnet was found on the loch bed. The decorated leather shoe from crannog 2 has been published as Roman (Scott 1976, 37, fig 3), but this is no longer certain, since recent excavations have shown there was a comparable native tradition of decorated shoes in the Early Historic period (eg Dundurn - Alcock et al 1989, 217, fig 16.50; Iona - Groenman-van Waateringe 1981, figs 22, 24, plate 20)

The above assemblage is relatively rich compared to other local Iron Age sites, such as the hut circle at Moss Raploch, Kirkcudbrightshire (Condry and Ansell 1978). Current interpretations would see the Dowalton crannogs as high-status settlements during the Roman Iron Age, since it seems that access to Roman goods was restricted to only a segment of the indigenous population (Hanson & Macinnes 1991, 89-90). These Roman goods probably had a role as exotic prestige goods in Iron Age society, being used to display the owner's status.

Evidence from elsewhere in the southern Machars confirms that the area supported a

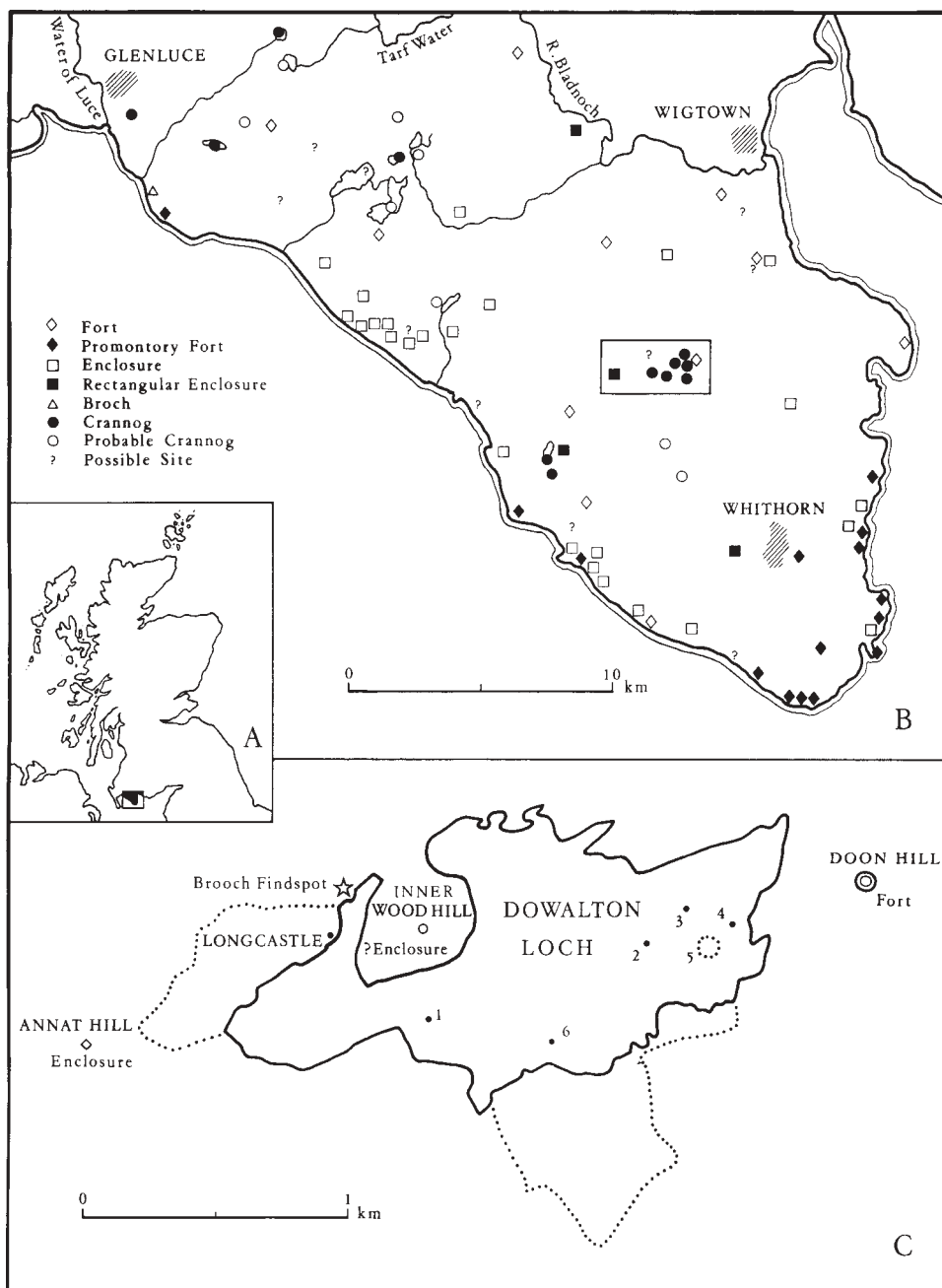


Fig 1

Location of Dowalton Loch.

B shows sites of probable Iron Age date in the area (see note 1 for details).  
 On C, 1-6 are crannogs, while the dotted line indicates the extent of marshland today,  
 a pointer to the loch's possible previous extent.

complex Iron Age society (fig 1b). There was a range of settlement forms, from crannogs to enclosed farmsteads, promontory forts, and hillforts, and we should probably imagine a series of unenclosed settlements which have not left such prominent physical traces. That Roman goods were in circulation in some of the postulated high-status settlements is confirmed by the Roman bow brooch excavated in the promontory fort at Cruggleton (Ewart 1985, 64-66). Roman stray finds of a figure of Mercury from Stelloch, Monreith (Curle 1932, 376-377) and a scatter of coins (Robertson 1970, fig 3) are more difficult to interpret, but may well indicate native access to Roman goods<sup>2</sup>. The enamelled bronze fragment from Rispain (Close-Brooks 1983) suggests that high-quality native metalwork was also in circulation, although unlike other areas of southern Scotland it was not being hoarded. This complex Iron Age society provides a suitable backdrop for the emergence of the religious, industrial and trading centre at Whithorn in the following centuries.

There are a number of sites around Dowalton itself which may be contemporary with the Late Iron Age (LIA) phase of the crannogs (fig 1c). The rectangular enclosure on Annat Hill is superficially similar to the LIA farmstead at Rispain (Haggarty & Haggarty 1983), and there is a bivallate circular enclosure on Doon Hill to the east. On a former island on the north-west side of the loch sits the Long Castle, the surviving remains of which are from a medieval towerhouse or similar structure, but which could well overlie an older settlement<sup>3</sup>. Understanding the LIA political geography of the immediate area is complicated by a lack of knowledge of the above three sites.

The size of the loch has varied over time. The date and extent of its previous incarnations are unknown, but the shrunken state recorded in 1866 may have been relatively recent (Stuart 1866, plate XI (incorrectly numbered XII)). At some times it must have extended west as far as Annat Hill (fig 1c), and several relict shorelines are visible around the former loch margins. Stuart (1866, 121-122) discusses the matter in more detail.

This paper will report a recent find from the Dowalton area, and look again at some of the older finds. From this a new interpretation of Dowalton Loch will be proposed.

### A dragonsque brooch from Boreland of Longcastle

In 1989 Mr Jim Kirk found an enamelled copper alloy object while metal-detecting near a track on the farm of Boreland of Longcastle, close to the former NW shore of Dowalton Loch (fig 1c; NGR

NX 395 470). The find was reported to the Archaeology Department of the National Museums of Scotland, where it was identified as the body of a Romano-British dragonsque brooch. It was claimed as Treasure Trove and subsequently acquired by Wigtown District Museum, Stranraer (registration number WIWMS 1993.1), with the finder being rewarded.

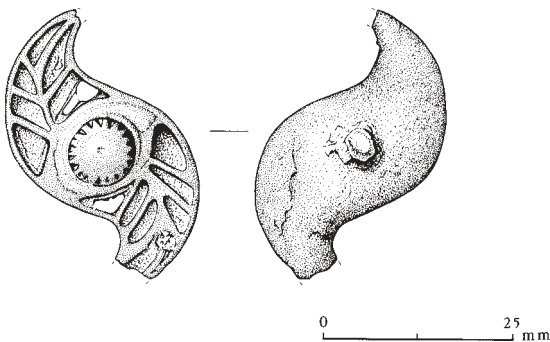


Fig 2  
Dragonesque brooch, Boreland of Longcastle.

The object (fig 2) is the body of an unusual dragonsque brooch of Feachem's (1951) class i (brooches with a central circular device). The few well-

dated examples suggest a date in the later first and second century AD (Mackreth forthcoming). Their distribution is far-flung, including a few Continental examples, but shows a concentration south of the Forth and north of the Humber (Feachem 1968, fig 1), although evidence of manufacturing sites is scanty.

The cultural and technical background of dragoesque brooches (as with other “Romano-British” artefacts such as glass bangles and button-and-loop fasteners) is poorly understood. There are hints of an Iron Age background, as yet not clearly defined, in a few iron “S” or “Proto-dragoesque” brooches (Hull and Hawkes 1987, type 2D): the earliest known example, from Wetwang Slack, East Yorkshire, is probably third century BC in date (Dent 1982, 446, fig 4.236; J S Dent, pers comm). However any subsequent development into the copper alloy examples is unclear. The pattern of dateable associations shows the earliest examples in the south of England with later examples in the north (Mackreth forthcoming), but there are grave dangers in suggesting this is the true picture of the type’s development. There is a major methodological problem, recurrent in much later Iron Age and Romano-British archaeology, whereby non-Roman artefacts can only be accurately dated by association with Roman objects. Since the pattern of earliest Roman contact is from south to north, this imposes an inherent dating straitjacket which is too often interpreted as a cultural fact. Until more refined approaches to such problems are developed, perhaps via the study of their manufacture through metal analysis, any claims of a south-to-north trend in artefact development (and the resulting picture of a receptive, non-innovatory north) must be treated with considerable reserve.

The Boreland of Longcastle example is in fairly poor condition, with quite heavy surface patination. The elaborate terminals, which gave the object its zoomorphic form, and the pin, which once looped over them, are missing; the enamel has been lost from most of the cells. The brooch’s body is convex rather than flat. Qualitative surface analysis of the metal by X-ray fluorescence (XRF) indicated it was a low-zinc brass, suggesting it was made from remelted Roman brass. In the centre is a lenticular cell defined by two joined trumpet-motifs, rising above the general level of relief, with a hollowed centre containing a serrated-edged boss of yellow enamel. This is held in place by a rivet through the centre of the boss and the body of the brooch. Qualitative XRF analysis showed this rivet was a gunmetal, a copper-tin-zinc alloy, with lead and arsenic also present. The enamelled boss must have been cut and shaped from a lump of solid enamel and then riveted to the brooch: microscopic examination revealed traces of file-marks in the serrations around the edge, indicating it was abraded to the desired shape before attachment.



Fig 3

Dragoesque brooch from Castledykes, Lanarkshire. Maximum length 40 mm.

The enamelling on each “arm” consists of a number of trapezoidal cells on either side of a central metal spine. Corrosion products obscure the details in places. Two cells retain yellow enamel insets. In several of the cells which have lost their enamel, channels can be seen in the base, around the perimeter of the cell. These would provide keying to hold the enamel in place. Such brooches typically have two or three enamel colours (Bateson 1981, 34). The central boss and one of the blocks were analysed by qualitative surface XRF in an attempt to identify the colourant and opacifier of the enamel. Lead (Pb) and antimony (Sb) were colouring and opacifying the block, perhaps in the form of lead antimonate. The boss was covered in copper corrosion products which distorted the analysis, but Pb and Sb were present, suggesting it was the same kind of enamel.

The fragment is closely paralleled by a recent find from the Roman fort at Castledykes, Lanarkshire, which has a

similar enamel pattern (in red and ?yellow) on the arms and a trumpet-defined lentoid area with central circular device (fig 3)<sup>4</sup>. However the central boss on the Longcastle example is an unusual feature. Romano-British enamel is invariably of the inlay or *champlevé* type (Bateson 1981, 111), while this boss is an “uplay” enamel, rising above the level of the metal base and being held in place by a rivet (Bateson’s type 2 (1981, 89 and fig 10A)). This is an Iron Age tradition, found on objects such as the Battersea shield, and more locally on a strap junction from Easter Eildon Hill, Roxburghshire (MacGregor 1976, no 18). However, it is also found on button-and-loop fasteners from Newstead, Roxburghshire, and the Perth area which are clearly Roman in style, and a Roman-period terret ornamented with a native horned god from Aldborough, N Yorks (MacGregor 1976, nos 254, 256 and 61; all have lost their enamel). This suggests the continuation and adaptation of Iron Age craft traditions in north Britain which were abandoned in the south around the time of the Roman conquest. No other dragonesque brooches known to the writer have this feature, although applied rivets are known on such brooches both for decorative purposes (eg an example from South Shields, Allason-Jones and Milet 1984, no 3.131) and to replace defective parts of the casting (eg one of the snout knobs on the brooch from Edinburgh Castle; personal observation - see Selkirk 1992, 463 for *illus.*).

The Boreland of Longcastle brooch may be a classic “stray find”, an isolated accidental loss, but may equally be from an unidentified settlement around Dowalton Loch. The hillside to the north of the loch where the brooch was found has a flat area, just above an old shoreline, which is slightly scarped back into the hillside. This could well be the location for a contemporary settlement. Alternatively it could have come from an earlier site under the Long Castle (see above), which is only 200 metres away.

## The Dowalton bowls

Among the objects recovered from the loch bed in the 1863 investigations were three copper alloy bowls. Two were illustrated in the original account (Stuart 1866, plate X, figs 1 & 2), but they have never been fully considered. They will be published in detail here since they are of considerable relevance to the interpretation of Dowalton Loch which is advanced below. The bowls are in the collections of the National Museums of Scotland, and are referred to by their registration numbers, HU 2 - 4. Details of the metal analyses can be found in Appendix 1.

### **HU 2 Two-piece bowl with simple folded rim**

(fig. 4)

*Dimensions* 262 x 252 mm diameter, max 89 mm height

*Composition* high-zinc brass

#### *Description*

This bowl is in general poorly finished, with a crude base join and rim, and many irregular hammer-marks and dents. It has been extensively repaired.

The wall is a single strip c. 90 mm wide joined at the ends in an overlap some 17 mm wide held by four rivets, apparently rolled copper alloy strips with the ends hammered flat (c.f. Gregory 1978). Cuts 4 - 6 mm deep were made in the top of the wall, and these sections were hammered over to form a crude outward-folded rim. The strip is joined to the base to form a sloping wall, straight or slightly convex. The bottom of the wall is bent inwards and the edges of the base curve up, creating an overlapping join which was soldered. A pronounced series of oblong hammer-marks 10 mm above the foot of the wall indicate where it was hammered firmly against the base.

There are two diametrically opposed pairs of pierced holes in the wall, c. 20 mm below the rim. Three of the holes have diameters around 5 mm, but one has ripped and enlarged extensively. The three smaller holes have had metal run in around the hole and subsequently pierced, presumably as a repair. Some flashing remains around the perimeters on the external surface of three of the holes. These holes would have supported mounts for a carrying handle or handles: differential corrosion on the external surface around one pair indicates a sub-rectangular mount



stretching 38 mm below the rim, a maximum of 50 mm wide. There is a hint of a similar mount around the other pair.

The base and external sides of the bowl have heavy soot encrustations, indicating use suspended over a fire as a cooking vessel.

#### *Modifications*

The bowl has been extensively repaired due both to heavy use and to flaws in the metal, which apparently ripped easily, perhaps because of insufficient annealing during manufacture. One patch shows considerable sophistication, using a lapped joint: Trotzig (1991, 55-57) has studied this technique, and the earliest example he has encountered is c. 5th century AD in date, from Hungary. The others are much cruder, and have either rolled strip (see above) or “paper-clip” rivets: the latter are found from the Iron Age (eg on the Elvanfoot cauldron, Burns

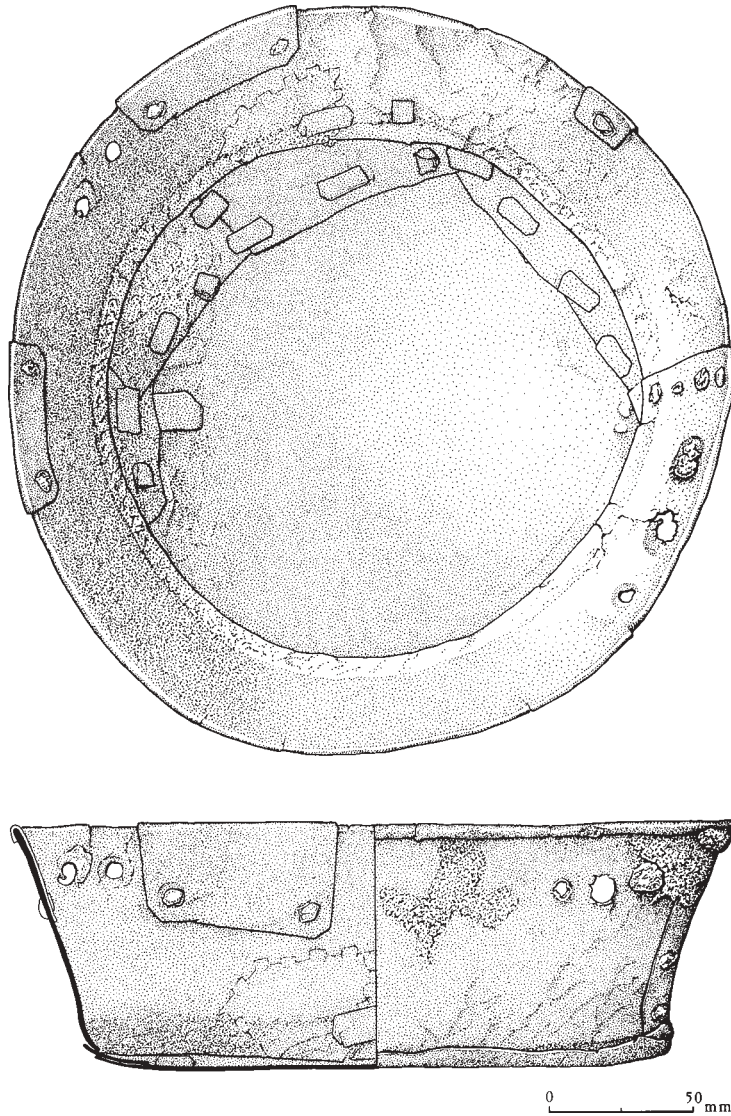


Fig 4  
Bowl HU 2.

1969) to the Medieval period (eg in late 14th- and 15th-century contexts from Luce Sands and Perth: Jope & Jope 1959, 270; Holdsworth 1987, 129, nos 39-41, fig 63). See fig 5 for key to patch numbering.

**Wall:**

- 1 A trapezoidal patch c. 45 x 35 mm was fitted near the foot of the wall. The join was effected by cutting a series of laps 5 - 6 mm long and 2 - 4 mm deep, overlapping them with the prepared edges of the rip, and soldering. This was probably one of the first patches on the vessel.
- 2-3 50 mm clockwise from one carrying handle mount is a hole, with another one 25 mm anti-clockwise from the other mount. Each is filled with the remains of an iron object, apparently a plug to fill a hole in the wall. X-rays suggest that in both cases the hole was trimmed to a regular sub-rectangular shape and the plug inserted. The better preserved example (3) has a square head on the inside, with the shank hammered over externally to hold it. Patch 2 has been less successful, with subsequent ripping requiring a sheet copper alloy patch (5).
- 4-6 Three approximately rectangular patches in the upper half of the wall repair rips and holes. Each is held by one or two rolled-strip rivets at its lower edge and by folding the upper edge round the rim. Patch 4 covers two holes and a horizontal rip - one hole may have been an earlier rivet hole for the patch; patch 5 covers a hole and also replaces patch 2; patch 6 covers a vertical rip. Further incipient rips (developing from some of the initial cuts made to facilitate folding the rim) had not been repaired when the bowl was deposited.
- 7 A paper-clip rivet in a vertical edge of wall patch one, presumably repairing an area where the lapped and soldered join had not held. This patch was affixed after the extensive base repairs, since it overlaps them.

**Base:**

- 8 A paper-clip rivet towards one edge repairs a rip in the base.
- 9-12 Extensive repairs were made to almost two-thirds of the edge of the base. Problems must have been encountered with the base-wall join, since the base was detached from the wall, the original edge was trimmed back over about a third of its circumference, and four overlapping patches held by paper-clip and rolled-strip rivets were attached to replace the original edge before the base was reattached, slightly offset from its previous position. The lower edge of the wall was also folded slightly in on itself in the area of the repair. This seems to be a single event, since the patches share common rivets.

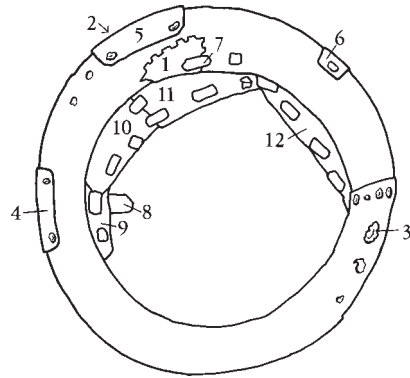


Fig 5

Key to patch numbers on HU 2.

**HU 3 One-piece bowl with everted sides**

(fig. 6)

*Dimensions* 303 mm diameter, height 104 - 117 mm.

*Composition* high-zinc brass

*Description*

The slightly domed base curves sharply into a fairly steep-sided wall which, just above half its height, flares outwards. The rim terminates in a straight unmodified edge. There are two diametrically opposed pairs of pierced holes in the wall, 6.5 - 8 mm in diameter, one pair 15 mm below the rim and the other 25 mm. Some flashing remains around the holes on the outside. Internally there are marks around them from circular washers 25 - 30 mm in diameter. Externally, differences in patination imply the former presence of mounts around the holes, roughly rectangular around one pair, less clear around the other. These would provide support for a carrying handle.

There is a marked difference in finish between the rim and the rest of the vessel. Externally it has been carefully plished to create a regular series of circular hammer-marks, giving a decorative appearance. However

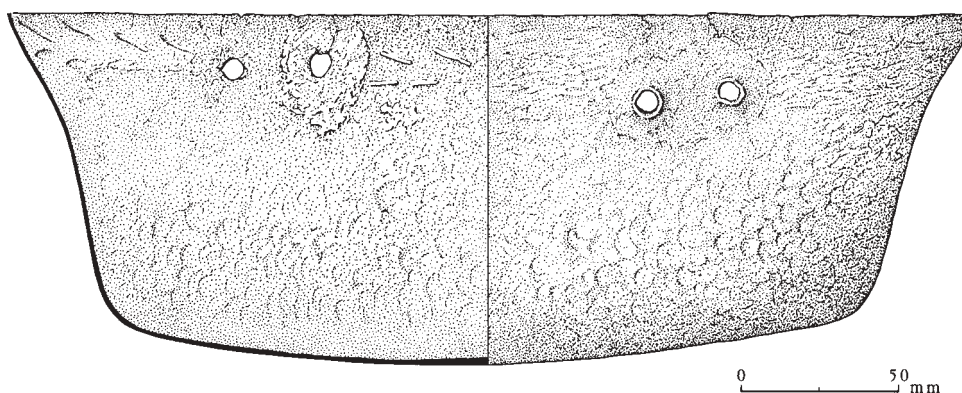


Fig 6  
Bowl HU 3.

the flaring rim does not have such marks: externally and internally a band some 20 mm wide has oblong hammermarks from raising and shaping. This strongly implies that the edge was originally covered, perhaps by an iron rim crimped over it and welded or shrunk on, which may either have corroded during burial or been removed before deposition.

The patination also varies. Internally the base and lower part of the walls are less patinated than the upper walls. This could stem from only partial submersion in mud, or may be an effect of its original use or contents. The external patina is much rougher than that internally, although again it is unclear whether this stems from use (such as the effect of fire) or burial.

The vessel has not been repaired or seriously damaged, apart from one rip in the rim.

#### **HU 4 One-piece flanged bowl**

(fig. 7)

*Dimensions* Internal diameter 272 x 252 mm, height 88 - 95 mm. Flange width 25 mm.

*Composition* low-zinc brass

#### *Description*

A gently rounded base grades into the smoothly convex curve of the wall. The wall terminates in a flanged rim, which points slightly downwards. The upper edge of the rim has been rounded off for ease of handling.

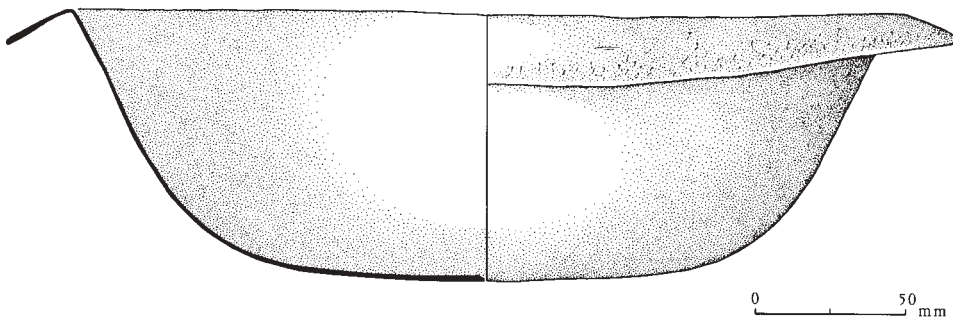


Fig 7  
Bowl HU 4.

Although now oval, it is likely the bowl was originally round and has been distorted by subsequent damage. On one of the long sides of the oval the flange is broken and has split away from the bowl for a distance of 180 mm. On the opposite side the flange is missing for 120 mm and split for a further 30 mm.

In the centre of the bowl is a small sub-circular depression, c. 1.5 mm deep and 4 - 5 mm in diameter, which just perforates through to the external surface. It could be a centre mark for raising or a centre-point from lathe-finishing. Elongated hammer-marks from shaping the flange are visible on the underside of the rim, but otherwise the planishing marks are very subtle. Although there are no clear signs of lathe-finishing, the smoothness of the finish and the central depression suggest this. If so, the bowl must originally have been circular.

There are some dents and incipient cracking on the bowl, and quite extensive scratching through the patina, probably from post-excavation attempts to clean it. Otherwise it is in very good condition.

### Parallels and dating

Dating the Dowalton vessels is problematic, and opinions have varied. Stuart (1866, 124) drew parallels between HU 3 and 4 and Roman vessels in a hoard from Rodingfield in Essex (normally known as the Sturmere hoard). However these are more angular and have omphalos bases (Kennett 1969, 124-128 - "bassins uni"). Robertson (1970, table III) interpreted them as Iron Age, although MacGregor (1976) clearly did not agree, as they are not included in her survey of Iron Age metalwork.

HU 4 is the easiest to parallel, although it cannot be closely dated. It is unlikely to be Roman, since Roman flanged bowls tend to be more complex, either with omphalos bases or foot-rings, and often with decoration (eg Kennett 1969, figs 2 and 4). The flanged bowl tradition emerges properly in the Norse and Medieval periods, when they are relatively common, although generally with flatter bases than the Dowalton example. For example, there is an example from a mid-11th - 12th-century context at Facombe Netherton, Hampshire (Fairbrother 1990, 431, fig 9.15), while Scandinavian examples include a mid 10th-century example from Hørning, Denmark, and a 12th-century one from Rantala, Finland (Roesdahl and Wilson 1992, nos 46 and 223), both datable by the decoration they bear. A Medieval example from Åker, Sweden, has a runic inscription indicating it was a hand-basin (Trotzig 1991, 132), and illustrations in 15th- and 16th-century paintings show a range of flanged basins used in conjunction with ewers for hand-washing (Theuerkauff-Liederwald 1975); the decoration inside some examples also supports a use in holding a clear liquid such as water.

The Dowalton example therefore falls into an extensive class of post-Roman flanged bowls, starting around the 10th century and running through the Medieval period<sup>5</sup>. It is not currently possible to be more specific, either from morphology or technology, although with more study or further examples the presence of rounded rather than flat bases or downward-angled rims may prove more diagnostic.

HU 2 and 3 are much more difficult to pin down. The use of brass demonstrates they are not pre-Roman (Bayley 1990, 13); Iron Age traditions are in any case far more round-based (MacGregor 1976, nos 292 - 310). There are no good Roman parallels in Eggers's classic study of Roman imports, nor in his later work on Roman bronze vessels in Britain (1951, 1966); other standard references, such as Den Boesterd's Nijmegen catalogue (1956) or Tassinari's study of the French National Museum's collection (1975) contain no similar vessels. Parallels are also elusive in the Early Historic, Norse and Medieval periods (c.f. Youngs 1989, nos 123, 127; Bruce-Mitford 1983, 507-510, 740-752; Trotzig 1991; Ward-Perkins 1940, 202-7). However, for HU 3 we may note a morphologically similar vessel from the 6th-7th century Merovingian cemetery of Barbing-Irlmauth, Germany, although it is lathe-spun rather than hand-beaten (Roth 1978, 496, Abb 150e). This suggests an Early Historic date is plausible for HU 3.

To throw light on the problem of HU 2's date, a sample of the soot encrustation from its external surfaces was removed and <sup>14</sup>C-dated in the Oxford accelerator mass spectrometer system. The result (1245 ± 60 bp, OxA-4508) calibrates at 2σ to 665 - 950 AD, with the most likely date being mid-7th - late-9th century (at 2σ (95%) probability and 96% confidence)<sup>6</sup>.

The problems in typological dating of these vessels reveal a methodological difficulty. We are dealing with the lower end of the spectrum of copper alloy vessels, particularly in the case of HU 2. This leads to two problems. The first is the lack of intact vessels for comparative purposes. It is primarily higher-status vessels which were deposited in hoards and graves, and the fragments encountered in settlement excavations are rarely diagnostic unless from a high-status vessel; other vessels tended to end up in the melting pot when they were no longer required, and it is only in exceptional circumstances as here that the lower end of the vessel spectrum is represented. The second is the conservatism of these vessel-making traditions, as seen in the flanged bowl example above - any chronological shifts, for example in base or rim shape, cannot yet be clearly detected, and it is only decoration which has so far proved diagnostic.

The analytical work (see Eremin and Wilthew, Appendix) has thrown up some intriguing results. The two Early Historic bowls, HU 2 and 3, are very pure brasses, and represent the use of newly produced rather than remelted metal. The measured zinc content of HU 2 is likely to be a slight overestimate due to problems in sample geometry (see Appendix): the maximum zinc content attainable before the 19th century was 28% (Craddock 1985, 23-5). However, these bowls are clearly made from high-quality brass. The patches of HU 2 all appear to be of a similar metal, implying either purchase of a sizeable quantity at once or continuing access to a good metal source. Interpretation of these results is complicated by a lack of comparable analyses, particularly from Scottish contexts, and it is necessary to turn to the limited English work for comparison. Analyses of Anglo-Saxon material have indicated that the alloys in use in the 5th-7th centuries tended to be very mixed, implying reuse of scrap metal (Mortimer 1988): however, there are some indications of the production of new metal, as in the brass boars' heads on the early 7th-century hanging bowl from Sutton Hoo (Oddy 1983, 955-961). Closer in space and time to the Dowalton examples is the 9th-century Northumbrian *styca* coinage minted at York, where there is a phase of coins struck from alloys containing 16 - 22% zinc (Gilmore 1987). Clearly newly-produced brass was available at the time: however, we have too few analyses to assess the extent of its currency and uses.

HU 4 is markedly different: it is a much more mixed alloy, with significant levels of zinc, tin, iron and arsenic. This is likely to derive in part from reuse of scrap, but the arsenic and iron levels point to a different metal source. Significant arsenic, antimony, nickel and iron levels are frequently noted in analyses of Medieval metalwork, and this is generally attributed to increasing use of the copper sulphide *fahlerz* ores of Southern Germany, which contain the above impurities (Craddock 1985, 36; Brownsword & Pitt 1984, 334); Craddock (*ibid*) notes their earliest occurrence as 10th century. Since the analysis of HU 4 is not fully quantitative, and since there is a limited comparative corpus, it is unwise to try to link the metal to a specific ore; other ore sources, such as Rio Tinto, Spain, could produce similar impurity patterns (eg Craddock 1985, table 1). However the results do indicate use of different metal sources, and on current evidence would support the late Norse / Medieval date suggested on archaeological grounds.

### **Dowalton Loch and the interpretation of vessel deposits**

From the original accounts it is clear that, as well as finds from the crannogs themselves, material was recovered from the loch bed "in the neighbourhood of the islands" (Stuart 1866, 121). Much of this can be explained as domestic rubbish, but some does not fit this interpretation, particularly several intact copper alloy vessels and other fragments. Most striking is the large Roman skillet with a Medusa head roundel, stamped with the maker's name on the handle (Munro 1885, fig 5). There is also the "ring and staple" handle of a Late Bronze Age bucket or cauldron (Coles 1960, 88; Munro 1885, fig 6); a Medieval two-handled tripod cauldron (Maxwell 1885, fig 31); and the three brass bowls discussed above. A further vessel was recovered by the landowner, and others from the same findspot were

retrieved by locals (Munro 1885, 79) - none of these can now be traced. All were recovered from the loch bed: the skillet from mud near the east margin of the loch; one bowl from near Miller's Cairn to the west of the loch; another between crannog 2 and the shore; the tripod vessel from "the central ditch" (Maxwell 1885), perhaps near the centre of the loch; and the missing vessels from the mud near the southern shore. The findspots of the others are not precisely recorded.

The Roman skillet is an object of strikingly high quality - "probably the most perfectly preserved vessel of the kind in any collection" (Bosanquet 1928, 247). It was found some distance from the crannogs, which makes accidental loss an unlikely explanation. Stuart's suggestion that it "may have been floated off during the period when the islands were submerged" (Stuart 1866, 121) is highly improbable, while its pristine condition implies it was not discarded as rubbish. Better parallels are the finds of similar vessels from native hoards in south-east Scotland, such as from Stanhope, Peeblesshire (Smith 1881), or Lamberton Moor, Berwickshire (Anderson 1905). A particularly close parallel more locally is the find of two skillets, one within the other, from a moss near Friar's Carse in Dumfriesshire (Riddell 1808). There is no evidence that these were actually found at the nearby crannog, as often stated (Wilson 1989, note 8), and they should also be seen as a hoard (Robertson 1970, 204). The proximity to the Roman fort at Dalswinton could be used to suggest a Roman hand behind the deposit, but from the south-east Scottish evidence outlined above it fits better into the pattern of native hoarding.

From a general consideration of the phenomenon of hoarding in the Scottish Iron Age, based on hoard contents and contexts, these should be seen not as casual losses or safekeeping hoards but as deliberate votive deposits which were an integral part of contemporary local ritual<sup>7</sup>. This suggests we should see the Dowalton skillet not as rubbish or accidental loss but as the deliberate votive deposition of a highly valued object in a symbolically significant location<sup>8</sup>. Such deposits probably had both a religious motive and a social one - by giving valuable gifts to the gods, a person or group indicated to others their wealth and status (Bradley 1990, 38-40). Vessels may have had a particular significance - in their role as containers they could be a symbol of fertility and plenty.

From this we may reconsider the other vessels. The "ring and staple" is the handle of a Late Bronze Age bucket or cauldron: all the known Scottish examples are from hoards or single finds in bogs (Coles 1960, 28-9, 88), and this example too is likely to be a votive deposit, either as a single object, now broken, or the container for a hoard which is scattered in the loch. The existence of a strong votive tradition in the Late Bronze Age is well-established (Bradley 1990, 97-154).

The Early Historic and Medieval vessels could also be seen as votive deposits. Medieval vessels are regularly found intact in watery contexts (see note 5). While they are often regarded as casual losses, it is difficult to discern a realistic mechanism behind this, and it seems likely that some at least are part of a continuing tradition of vessel deposits: for example, the 14th-century vessel hoard from a well at Kirkton, Dumfriesshire (Spearman 1993) is clearly not an accidental loss. In this case the vessels contained organic material, possibly butter or cheese, which could be seen as further evidence for the link to fertility and food production argued above. This practice of depositing vessels is found throughout much of Scotland from the Late Bronze Age until the Medieval period. As suggested above,

its significance may lie in the idea of a vessel as a container, a symbol of plenty. In the Christian society of the post-Roman period, ritual practices and the display of status by sacrificing valued objects were not officially sanctioned outside a church context: what we see may be more a superstition or folk tradition, still connected with fertility, but without the social motives of earlier periods. There was a strong folk tradition of holy lochs, springs and wells, often with the idea of leaving an offering behind. Historical records suggest this worked in two ways: leaving an offering in the water as a gift to the spirits in return for the benefits received; and leaving a piece of clothing by the water to transfer the illness from the donor as it rotted (MacKinlay 1893, 202). We know little of the practice before the 17th century, by which time it was largely concerned with the healing of people and animals. At this time the offerings appear to be of little value - low-denomination coinage, buttons and pins (MacKinlay 1893, 191-199) - although Stevenson (1986, 344) noted in the votive coins from Deerness chapel, Orkney, a preference for fresh rather than worn ones, suggesting they were valuable to the donor. Visits to healing lochs and wells continued, along with such practices as the use of charmstones, in parallel with Christian beliefs and in the teeth of strong opposition from the Church (Morris and Morris 1982, 187-190). We know from folklore of a strong holy loch and holy well tradition in the Machars, seen best in the curative properties attributed to the White Loch of Myrton, Mochrum (Morris and Morris 1982, 184).

While this does not provide a direct parallel to our postulated earlier tradition, it points to the continuing significance of water in folk beliefs, and provides a context in which earlier votive deposits could have been made. The nature of offerings may well have changed around the time our written records appear, since a coin economy only developed in much of rural Scotland around the mid-17th century (Stevenson 1986, 345; 1988). The recurrent pattern of vessel deposition in a particular location certainly suggests something other than an entirely pragmatic explanation.

## Conclusions

This suggested recurrence of a pattern of votive deposits intermittently over a period of 2000 years suggests Dowalton was a site of continuing symbolic significance<sup>9</sup>. Because lochs are rarely drained and investigated, it is difficult to know whether this is exceptional (perhaps the major ritual site for the area) or relatively common. However, there may be a similar situation at Carlingwark Loch, Kirkcudbrightshire. The main feature of Carlingwark is the well-known 1st - 2nd century AD hoard, principally composed of ironwork: this is surely a deposit by the local Iron Age population, not one by Roman auxiliaries (*contra* Manning 1972, 242-243) or irregular levies from southern Britain serving in the Roman army (*contra* Scott 1976, 36-37). This is not the place to make the detailed points, but the main thrust of the writer's argument is that Carlingwark and the similar hoards from Eckford and Blackburn Mill (Piggott 1953) share many features with the other LIA hoards of southern Scotland, in terms of the broad classes of material incorporated (eg a mix of local and non-local material) and hence the structuring principles behind them, and should be seen as a specific form of indigenous LIA hoard<sup>10</sup>. In addition to this hoard there is a Late Bronze Age sword from the loch (Coles 1960, 84), again hinting at ritual significance over several hundred years.

Another interesting feature of both Dowalton and Carlingwark is the presence of crannogs in these ritually important locations. In the case of Dowalton, the finds show that at least some of the crannogs were occupied at the time the skillet was put in the loch. The Carlingwark crannogs are undated, but the likelihood is that the occupation included the Roman Iron Age. The finds from Dowalton indicate the occupants were people of some status, and the same may well be true of Carlingwark. Indeed, the very effort involved in building a crannog makes this likely, at least for the primary inhabitants. Given the above arguments about the use of deposition ceremonies to indicate power and status, it is perhaps not too fanciful to suggest we are dealing with a deliberate attempt by certain sections of society to control the ritual site or indicate their status by placing their settlements there, appropriating the “sacred space”.

This alternative reading of the Dowalton evidence makes no claims to be the definitive statement on the subject. However it is hoped that it opens up interpretative possibilities beyond the purely pragmatic, and emphasises that we need to think about these periods not in simple terms of humble farmers but as complex societies with complex actions and complex motives.

### **Acknowledgements**

Foremost thanks are to the finder of the brooch, Jim Kirk. Dr Lawrence Keppie and Lindsay Allason-Jones kindly commented on the brooch, and Dr Stephen Driscoll showed me D Mackreth’s report on the Edinburgh Castle example. Thanks are also due to the following for help and comments: Daphne Brooke; Dr David Caldwell; Dr David Clarke; W F Cormack; Trevor Cowie; Dr Katherine Eremin; Dr Rupert Housley; Marion O’Neil; Alison Reid; and Paul Wilthew.

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## Notes

1 Sites are mapped from data in the National Monuments Record of Scotland. Attributions to site type largely follow Feachem (1955) except where personal inspection suggests this should be modified; crannogs follow Barber and Crone (1993, 525, groups 1 and 2). While the validity of classifying sites from surface morphology and topographical position can be questioned, it provides a first step towards defining the Machars Iron Age.

2 Interpretation of the copper alloy ingot from Carleton, Glasserton, is also difficult. Although generally seen as Roman, its dimensions are slightly smaller and squatter than other Roman ingots (Tylecote 1986, table 10), and it lacks a characteristic inscription (although so do many of the class). It is larger than would be expected from the Bronze Age, but could be a local Iron Age product, since our knowledge of the organisation of Iron Age metallurgy is very poor. Copper sources are known close to the findspot, at Tonderghie (Wilson 1921, 128-129). There is a similar ingot from near Edinshall broch, Berwickshire (Tylecote 1986, tables 10 and 11; purchase note in *Proc Soc Antiq Scot* 112, 596) and a smaller one in the hoard from Blackburn Mill, Berwickshire (Piggott 1953, 50, who also refers to a further example from Dundonald, Ayrshire). In all these cases the lack of any inscription makes it difficult to be sure whether these are Roman or native.

3 The Wigtownshire Inventory (RCAHMS 1912, no 130) notes building remains, which are probably from a small castle or towerhouse for the local landed family. Its date, and the question of its owners, has been the subject of considerable speculation: the earliest reference so far known is that in a charter of 1548 to a “fortalice” (M’Kerlie 1906 vol 1, 297; vol 2, 187-9). The Inventory suggested the site was an artificial island, but it looks more likely to be natural. Although now a promontory, it is clear from the *Old Statistical Account* for Sorbie parish (vol 1, 1791, 242-258) that the castle was then an island: subsequent writers (eg M’Kerlie, op cit) apparently did not recognise this, presumably because the drainage complicated the issue.

4 I am grateful to Dr Lawrence Keppie of the Hunterian Museum for details of this find and a photograph. Dr Keppie is preparing full publication of this and other recent finds from Castledykes.

5 There are a range of flanged bowls known from mosses in Scotland, none exactly like the Dowalton one: examples in the National Museum include one from Kincardineshire (reg. no. DU 7) and another from Balgone, East Lothian (DU 9). These two have close parallels in the Norse and Medieval Continental material indicated above, with fairly flat bases and horizontal everted rims. They have a series of holes in the rim, indicating perhaps an iron strengthening rim or a series of suspension chains or loops. Such finds are further evidence for the continuation of the practice of vessel deposits over much of Scotland into medieval times (see below).

6 The calibration was performed on the Oxford Accelerator Unit’s calibration program, using data from curves published in *Radiocarbon* 35, 1993.

7 The detailed evidence and arguments for this, and for the phenomenon of vessel hoarding, will be presented in a subsequent paper (Hunter forthcoming).

8 Robertson (1970) classifies the Dowalton skillet as a hoard find rather than a settlement find, but she amalgamates the LBA cauldron handle and the bowls as part of the same hoard, and most of the iron tools she refers to are clearly stated in the original accounts to have come from the crannogs themselves. The recorded scatter of the bowl and skillet findspots also militates against them being from one hoard. Some of the other material from the loch bed could indeed be votively deposited, eg beads, glass armlet fragments, and bronze objects, but it is much more difficult to be certain because it is also commonly found as domestic rubbish.

9 A hint of even earlier significance is given by a record, in an antiquarian collection formed by Dr Selby of Port William, of a “polished flint celt from Dowalton Loch”. If this was indeed a Neolithic polished flint axe, these were imported items of considerable rarity, of ceremonial rather than functional value (c.f. Sheridan 1992, 203-212), and ritual deposition is a clear possibility. I am grateful to Trevor Cowie for drawing my attention to this find.

10 This will be argued in detail in a future paper (Hunter forthcoming). See also Hingley 1992, 36.

### Appendix 1 XRF Analysis of Brass Bowls from Dowalton

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#### Summary

Three bowls were analysed by X-ray fluorescence (XRF) to determine their composition. All three are composed of the copper-zinc alloy, brass. Bowls HU 2 and HU 3 are high-zinc brasses, whilst bowl HU 4 is a low-zinc brass. All three bowls contain detectable iron and nickel. Other elements detected were tin, lead, which occurs in bowls HU 2 and HU 3, and arsenic, which occurs only in bowl HU 4.

#### Methods

All objects were analysed by energy-dispersive X-ray fluorescence (XRF): further details of the method are given at the end of this appendix. The surfaces of all three bowls were corroded. The initial analyses were on scratched areas which exposed a shiny metallic surface, and all areas were analysed without preparation. As semi-quantitative results were required a small area of metal on the base of each bowl was then abraded, degreased with methanol and reanalysed. This procedure was repeated until results from consecutive analyses were within 10 relative percent.

Bowl HU 2 has been extensively patched and repaired; several patches and rivets were analysed without preparation to compare the metal type.

#### Results

All three bowls correspond to brass, an alloy of copper and zinc. Semi-quantitative results from the abraded areas on the base of the bowls are tabulated below. Elements not detected are indicated by nd, whilst those present but below the quantification limit are indicated by nq. The errors given are estimates of the one standard deviation error based on analytical results obtained on certified BNF copper alloy standards. Silver may be present in trace amounts, but this cannot be confirmed on the system used (see below).

Table 1

Bowl	Copper	Zinc	Nickel	Iron	Tin	Lead	Arsenic
HU 2	66.8 ± 1.4	31.1 ± 1.2	nq	0.7 ± 0.02	0.4 ± 0.1	1.1 ± 0.11	nd
HU 3	72.7 ± 1.5	25.3 ± 1.0	nq	0.3 ± 0.08	0.8 ± 0.2	0.7 ± 0.07	nd
HU 4	85.1 ± 1.7	6.8 ± 0.5	nq	2.7 ± 0.14	2.0 ± 0.5	nd	3.1 ± 0.2

Bowls HU 2 and HU 3 are similar in composition, both being high-zinc brasses with minor iron, tin and lead, and traces of nickel. Bowl HU 4 has a very different composition, with a lower zinc content, and significantly higher levels of iron and tin, again containing trace amounts of nickel. This bowl is also distinctive in lacking detectable lead, and containing unusually high concentrations of arsenic.

Different patches of bowl HU 2 (see fig 5) were analysed without abrasion or other preparation. All areas analysed correspond to high-zinc brass with the exception of two concretions (2 and 3 on fig 5). Analyses of some of these areas are given below.

Table 2

Area	Copper	Zinc	Iron	Tin	Lead	Abraded?
2	0.1	nq	97.5	1.2	nq	no
4	68.0	27.0	0.4	3.8	0.5	no
11	68.7	27.4	1.5	1.6	0.7	no
12	67.4	28.9	0.4	1.9	0.7	no
base, scratch	66.5	29.5	0.9	2.3	0.5	prior to abrasion
base, scratch	66.8	31.1	0.7	0.4	1.1	final abrasion
base	65.8	31.4	0.8	1.4	0.5	no
base	63.2	34.1	0.3	1.4	1.0	no
side	62.2	35.1	0.3	1.5	0.5	no

The results indicate variations in the concentration of all elements, with zinc content generally lower than that quoted from the final analysis of the abraded area. With the exception of patch 2, copper:zinc ratios range from 1.8 to 2.5. Variations within a single piece, for example the base, are of the same order as those between different pieces. Zinc and lead content appear to increase with abrasion, whilst iron and tin content decrease. Given that most analyses are taken from unabraded areas the variations observed between different components are not considered to be significant, other than for the two concretions (2 and 3 on figure). These are iron rivets, with traces of copper, zinc, manganese and calcium.

Analyses from tarnished and unabraded areas of both bowls HU 2 and HU 3 indicated surface contamination with calcium, manganese and iron.

#### X-ray Fluorescence Method

The analysed area was irradiated with a primary X-ray beam produced by a silver target X-ray tube. The primary beam was collimated to give an elliptical area of about 2.5 mm x 2 mm. Secondary X-rays were detected with a silicon (lithium) solid state detector. Use of an air path restricts the range of detectable elements to those of atomic number above 20.

The detection limit varies depending on the elements, matrix and analytical conditions. Detection and quantification limits estimated from BNF standards are tabulated below.

Table 3

	Copper	Zinc	Lead	Arsenic	Nickel	Iron	Tin
Detection limit	0.03%	0.05%	0.18%	0.20%	0.11%	0.03%	0.25%
Quantification limit	0.09%	0.14%	0.54%	0.60%	0.33%	0.09%	0.75%

Spectra were collected in an air path at 25 kV with a 1.5 mm aperture and the maximum anode current of 800  $\mu$ A. Semi-quantitative results were obtained from the spectra using the Fundamental Parameters program of the Oxford Instruments ED2000 software with NMS method 'Brasses\*' In this method zinc is calibrated from BNF standard C42-01 which contains 32.6% zinc. Copper, tin, nickel, lead and arsenic are calibrated from BNF standard C71-07, which contains 83.66% copper, 6.1% tin, 0.51% nickel, 4.0% lead and 0.2% arsenic. Iron was not calibrated, and quantification uses the standardless option in the Fundamental Parameters program. The method was checked by analysis of other certified BNF copper alloy standards.

As the X-ray tube has a silver target, small silver peaks are produced in all spectra. The detection limit for silver is therefore higher than for other elements and trace amounts of silver cannot be detected. Hence it is possible that the bowls could contain trace levels of silver.

The accuracy of all results is strongly affected by sample geometry and surface finish. Due to problems with positioning resulting from the size and shape of the bowls, perfect primary beam, sample and detector geometry was not achieved during all analyses. However in all cases the position of the bowls was adjusted to attain the best possible geometry. As the analytical technique used has a limited penetration depth, the reported compositions may not be representative of the bulk of the metal if abrasion has not completely removed any chemically distinct layer, and in analyses where abrasion was not possible.

Spectra were also collected in an air path at 46 kV, 800 $\mu$ A to check for trace elements which may not have been detected under the lower voltage conditions used for quantification of the results. No additional elements were detected.

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## THE BORGUE ARMOUR AND THE DUMFRIESSHIRE *SPANGENHELM*

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### **Iron Armour**

Defensive weaponry during the early Medieval period consisted of shields, helmets and armour. Whilst shields, and their iron bosses in particular, are relatively common archaeological finds (Dickinson and Harke 1992), helmets and armour are extremely rare. From Anglo-Saxon England there are only three helmets, the well known examples from Benty Grange (Bruce-Mitford 1974; Webster 1991a, 59-60) and the Sutton Hoo ship burial (ibid 1978, 138-231) and the more recent discovery at Coppergate in York (Tweddle 1992; Webster 1991a, 60-2). In addition a boar crest from Guilden Morden (Foster 1977) and crest fragments from Icklingham and Rempstone (Tweddle 1992, 1083) probably came from Anglo-Saxon helmets. Chain mail armour is even rarer and has only been found at Sutton Hoo (Bruce-Mitford 1978, 232-40) and attached to the Coppergate helmet (Tweddle 1992, 999-1009). Two old finds from south-west Scotland are thus of considerable interest.

The fort of Borgue, sometimes referred to as Castlehaven, in Kirkcudbrightshire (NX 593482) was excavated in 1905 (Barbour 1907; RCAHMS 1914, 46-8), but the excavations were of such a poor standard that the finds from them are almost completely lacking in context. The site which stands on the edge of Castlehaven Bay is a D shaped galleried dun or ringfort with outworks (Alcock 1988, 328; Barbour 1907, 72-7; Laing 1975b, 16) with dimensions of 18.3 by 10.7m. This structure's best parallel in early Medieval Scotland is phase two at Dunollie Castle in Argyll which probably dates to the early eighth century (Alcock and Alcock 1987). The name Borgue is of Scandinavian origin and is derived from the Old Norse *borg* which means stronghold (Brooke 1991, 306 and 321; Nicolaisen 1976, 107 and 111). Dating evidence for the site's occupation is provided by a penannular brooch, two spiral finger-rings and a glass bead (Barbour 1907, 78-9).

The bronze penannular brooch which lacks its pin belongs to Fowler's type D7 (1963, 113 and 146; Longley 1975, 12) which is distinguished by "terminals like castellations" (Fowler 1963, 112). It has three ribs on the terminals and a ribbed hoop. D7 brooches are a post-Roman elaboration of the Romano-British type D6 which originated in south-east England and then spread westwards and became more elaborate. D7 brooches are relatively rare and there is little dating evidence but an example from Ballycatteen in Ireland dates to the late sixth or early seventh century whilst a clay mould from Dunadd, which also has three ribs on its terminals, is of fifth to ninth century date. Recent discoveries have shown that D7 brooches are relatively common in late fourth and early fifth century deposits at Roman forts in northern England with three from South Shields, two from Piercebridge and one from Birdoswald (Snape 1992). The D7 brooch from Borgue may therefore point to contacts with the Roman military which could suggest an origin for the armour.

Two spiral finger-rings of bronze wire which were found at Borgue could date to any time between the Middle Bronze Age and the Anglo-Saxon period as these items enjoyed several different periods of popularity (Clarke 1971, 25-8 and 45-9). The nearest other spi-



ral finger-rings, two gold examples from Buiston crannog (Munro 1882, 228-32), point to an early Medieval date. A blue glass bead made of vitreous paste with a continuous wavy white line of decoration also points to an early Medieval date (Laing 1975a, 336-8). In addition a rotary quern (Barbour 1907, 78) must be later than the transition from saddle to rotary querns which recent investigation suggests occurred around 200 B.C. (Armit 1991, 190-9). A fragment of an amber ring bead (Barbour 1907, 78) might be thought to indicate Viking occupation but the Gododdin poem shows that the pre-Viking Britons possessed *gweffrawr* [amber beads] (Jarman 1988, line 50).

The Borgue excavations also produced “a quantity of small iron or steel rings about 1/4 inch diameter, partly interlaced, evidently remains of chain mail” (Barbour 1907, 79). Technologically this find could be of any date from the pre-Roman Iron Age onwards and the poor quality of excavation means the find lacks any stratigraphical position. The other finds from the site however suggest an early Medieval date, though we are of course ignorant of their relationship to the iron rings. A number of the finds such as the finger-rings and quern could date to the pre-Roman period but none of them need be earlier than the post-Roman period. The suggestion that the Borgue was occupied by Scandinavians (Brooke 1991, 306) rests solely on its Old Norse name, the name need not, however, demonstrate that the site was occupied by Vikings as it would still have been a prominent landmark even if abandoned. It may have acted as a refuge for members of the Balliol family later in the fourteenth century (Stell 1986, 129) but there is no archaeological evidence for this possible period of occupation.

The Sutton Hoo armour had unfortunately been folded over several times before it was deposited in the ship burial but its quantity and bulk suggest a full-sized coat or shirt of knee length (Bruce-Mitford 1978, 234). It was made of finely forged iron links about eight millimetres in diameter which were fastened by copper rivets. Such armour would have been heavy to wear but strong and supple enough to deflect blows from a spear or sword. The iron mail attached to the Coppergate helmet (Tweddle 1992, 999-1009) was composed of finely made iron rings which were the same size as those from Sutton Hoo. This armour incorporated some silver rivets and hung down from the base of the helmet’s cap to protect the back of the neck. There is no way of telling whether small pieces of armour such as that found at Borgue were part of mail-coats or from the neck guard of a helmet.



Figure 1  
Eighth century Pictish carving from Aberlemno of a dead warrior, probably Northumbrian, who is wearing a crested helmet with neck guard, knee length split armour and has a circular shield (after Trench-Jellicoe 1994, fig 5).

Armour is depicted on some of the Pictish symbol stones, such as Aberlemno no.2, where certain figures are shown wearing long tunics which have slits from the knee to the hip (Figure 1). This is probably meant to indicate mail-shirts similar to the folded remains from Sutton Hoo (Laing and Laing 1984, 278-80). Armour is also mentioned in the Gododdin poem which has its origins in sixth and seventh century southern Scotland (Jackson 1969; Jarman 1988). Leslie Alcock has argued that this armour was made of leather rather than iron

(1971, 332-3 and 1983, 11-2) but this is not supported by a close examination of the poem. Alcock bases his argument on the fact that the various words for armour in the poem are derived from the Latin terms *sarcia* and *lorica* which could refer to protective clothing made of any material and the idea that the use of iron armour declined after the second century A.D. (ibid). It has recently been shown that the supposed decline in the use of iron armour is illusory (Coulston 1990) and the point concerning *sarcia* and *lorica* does not show that the armour was made of leather, merely that it could have been. In verse A.49 the Gododdin poem refers to *haern gaddug* (Jarman 1988, line 488) which means iron covering whilst in B.94 it uses the term *pethynad* (ibid, line 900) which means scale armour. Parts of *sarcia* are known in early Welsh poetry as *genau* or fish-scales, suggesting armour made of overlapping plates (Breeze 1993, 292) which is rather different from the archaeological examples. The poem also frequently describes armour as *gwrn* [dark blue] (Jarman 1988, lines 357, 500, 563 and 688), although early Welsh colour terms are often imprecise and difficult to translate precisely (Breeze 1993, 292) and *gwrn* probably refers to the oxidation colour of metal which has been reheated to three hundred degrees centigrade to produce a balance of hardness and elasticity (Scott 1991, 199 and 212; see also Jackson 1969, 32). Such armour may well have incorporated leather elements as iron on its own is rather impractical, the dominant element was however definitely metal. Cheaper armour made only of leather probably also existed; a *cathet* or leather coat is mentioned by the poet Taliesin (Williams 1968, 1 and 18) and part of a leather tunic or jerkin was discovered at Loch Glashan in Argyll. Another documentary source which mentions armour is Adomnan's Life of Columba (Anderson 1992) where a cowl is described as *inpenetrabilis lurica* [impenetrable armour - chapter 72.a] which could deflect a spear. It has been argued that the Gododdin poem demonstrates that Northumbrian warriors also wore armour (Breeze 1993, 292) but the evidence that the enemies of the Gododdin were Anglo-Saxon is unreliable (Cessford forthcoming).

A wooden tablet of the late first century A.D. found at the Roman fort of Vindolanda (Bowman and Thomas 1987, 135-7) describes the fighting characteristics of the local British. They fought "stark naked" which probably means without armour (ibid). Roman armour has been discovered at a number of forts in Scotland, such as Newstead (Curle 1911, 155-63) and Carpow (Wild 1981). Armour has also been found in the second century hoard at Carlingwark Loch, Castle Douglas, discovered in 1866 (Piggott 1953, 38, 40 and 50), though it is unclear if the Carlingwark armour was of Roman or native manufacture. There are a number of other nineteenth century finds of armour from south-west Scotland such as a fragment found beside the Kinnel Water in 1860 and some ornamental fillets found in a drain at Corrie Loch in 1892 (Moffat 1863). While the discoverer of the Corrie Loch armour speculated that it came from "the funeral pile of some ancient, perhaps Roman, warrior" (ibid, 52-3) it and the find from Kinnel Water are undateable. Given the testimony of the Vindolanda tablet and the finds of armour it seems likely that the use of iron armour was introduced to the Britons of southern Scotland some time in the Roman period.

One of the finds from recent excavations on the church site at Barhobble, Wigtownshire, was a mass of corroded iron armour which was found in a building in use from about 1125 to 1300 though the armour could be earlier (DES 1988, 11 and pers. comm. W.F.Cormack). The Barhobble armour is made up of iron links about seven millimetres in diameter and some decorative rings made of copper alloy. Barhobble is a Celto-Norse site with a strong

Norse element (*ibid*) and the name Borgue is derived from Old Norse. As the Borgue armour lacks an accurate context and cannot be dated absolutely, it is possible that the Borgue and Barhobble finds could be of similar date and both be of Viking origin. This is probably unlikely as there is no evidence for Viking occupation at Borgue, but should be borne in mind as a possibility. Another piece of mail from a religious site was found at Wyre, Orkney (NMAS cat. HX852 and pers. comm. W.F.Cormack) but this find lacks accurate context and date.

The archaeological rarity of iron armour, the large amounts of raw material and skilled craftsmanship required in its manufacture, its prominence in poetry and on the Pictish stones all suggest that it was a rare and valuable item of prestige military equipment. The brooch and finger-rings from Borgue indicate a site of some importance and the iron armour suggests a very high status.

### *Spangenhelme*

Mystery surrounds the discovery of a collection of bronze fragments in southern Scotland and the earliest reference to them simply states that they were “found together in Dumfriesshire many years ago, the locality being now unknown” (Kinnear 1906, 342). Various suggestions have been made as to the find’s exact location, such as Tynron Doon (Laing 1975a, 33), but there is no evidence to support any such claim. The discovery consisted of five bronze bosses with shallow convex profiles approximately six centimetres in diameter and over fifty thin fragments of chased *repoussé* sheet metal which had been folded into packets (Figure 2). These fragments were thin sheets of copper with gold foil placed over them decorated with embossed figures, elaborate borders and a vine scroll background (de Paor 1961; Kinnear 1906; Webster 1991b, 173-5). De Paor suggested that the bosses and



Figure 2

Decorated fragments of sheet copper discovered in Dumfriesshire (after de Paor 1961, fig 1).

fragments came from the outer sheeting of a late sixth century semi-ovoid helmet similar to continental *Spangenhelme* (1961) but they have been re-dated to the second half of the eighth century and it has been argued that they come from some wooden religious object such as a shrine or altar cross (Webster 1991b, 174).

Webster's later dating of the fragments appears correct but the rejection of the *Spangenhelme* theory is more questionable. The redating does not really affect the *Spangenhelme* theory as though the majority of *Spangenhelme* date to between the fifth and seventh centuries they do continue to be used until at least the twelfth century. The highly fragmentary nature of this discovery makes reconstruction of the original item that the pieces came from problematical. Webster's religious theory is based upon the fact that there are five bosses, which could have been placed on the centre and four arms of a cross, and decorative parallels with religious items such as the Bischofshofen cross and St Cuthbert's portable altar (ibid). There is no evidence that the original artefact possessed only five bosses and even if it did it could still have been a secular item. Similar decorative motifs were used on both religious and secular metalwork and as Webster states the Dumfriesshire fragments also have parallels with secular items such as the Ormside bowl and Northumbrian stycas (ibid). De Paor's arguments for the items having come from a *Spangenhelm*, such as its slightly convex surfaces (1961, 193), still appear to have merit and this remains the most plausible explanation for the fragments.

*Spangenhelme* are widely distributed over continental Europe and appear to be associated with the Ostrogoths though they were also used by other ethnic groups (Ebert 1909; Steuer 1897, 227-9; Vinski 1954; Werner 1950; see also Greene 1987). In common with all other forms of early Medieval helmets their origin is to be found in late Roman parade helmets (Johnson 1980). Pictish symbols depict helmets (Laing and Laing 1994, 280), though not of the *Spangenhelm* type. Some of the figures shown wearing helmets on Pictish stones are not Picts but Northumbrians (Cruickshank 1994) though it is probably going too far to argue that Picts did not wear helmets at all (Cessford 1994; though see also Cruickshank 1995). The Gododdin poem makes a single reference to red *phurawr* or crests in verse A.11 and although this passage is open to other interpretations it probably refers to a red crested helmet. Helmets also seem to have been worn by the Britons of southern England as they are mentioned by Gildas who compares God's help to a protective *galea* (helmet, normally made of leather) (Winterbottom 1972, 52 and 118) and a helmet with nose and ear guards is depicted on a small bronze head from Glastonbury Tor (Dark 1994, 9). Two incised figures on a slate found at Tintagel with pointed helmets which Dark also mentions as evidence for the early Medieval use of helmets (ibid) are inappropriate as they are of later date (Thomas 1993, 114-15).

*Spangenhelme* were "rare and costly items" indicative of royal or princely rank and the nearest known examples are from France and Sweden (de Paor 1961, 188-9) so how plausible is the presence of one in south-west Scotland? The head on a fragment of a thirteenth century aquamanile found at Waterford in Ireland but probably manufactured in the Bristol area depicts a *Spangenhelm* showing that at least one of these helmets reached the British Isles to serve as a model, though at a considerably later date (Moore 1988). It appears that the man buried in a late fourth century grave at Kingsholm in Gloucester was a Goth (Hills and Hurst 1989) and certain pieces of silver in the fifth century hoard at Traprain Law are

also likely to be of Gothic origin (Curle 1923, 85-91). This evidence demonstrates that there is nothing inherently impossible about the Dumfriesshire find being a Gothic *Spangenhelm*.

Gift-giving between kings and religious leaders was an important form of exchange in the early Medieval period (Doherty 1980; Grierson 1959) and the Dumfriesshire find could well have been a diplomatic gift (de Paor 1961, 193-4). It would have originated somewhere on the Continent and may have passed through many pairs of hands before reaching its final owner. What caused the item to be broken up and deposited is unclear but it could well have been damaged and then broken up to be used as scrap for recycling, this would explain why its iron base is missing as it could have been recycled separately. It appears that helmets rather than crowns were used in Anglo-Saxon inauguration rituals until around 900 A.D. (Nelson 1980, 45) and there is other European evidence for a link between crested helmets and crowns (Almagren 1983). The Dumfriesshire fragments could have fulfilled a similar symbolic function though traces of damage and repairs on the Coppergate helmet (Tweddle 1992, 1029-33) show that some helmets saw actual military use. Finally with reference to the Borgue armour it is interesting to note that many *Spangenhelme* had mail sheets to protect the neck and face.

The only other possible helmet and armour of similar date from Scotland are the lost silver examples from the seventh century Norrie's Law hoard which are likely to have been a crushed bowl and some ornaments (Graham-Campbell 1991, 249-50). Given the rarity of helmets and armour in the early Medieval British Isles the iron armour from Borgue and the possible *Spangenhelme* type helmet from Dumfriesshire are important items. Both indicate high status owners and extend the range of military equipment known from Scotland. This makes the lack of specific archaeological contexts for both items all the more unfortunate but does little to lessen the items' inherent interest.

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## PICTISH RAIDERS AT TRUSTY'S HILL?

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The Pictish class I symbol stone at Trusty's Hill in Kirkcudbrightshire (NX 588560) (Allen and Anderson 1903, vol III, 477-79; Radford 1953; RCAHMS 1914, 14-16) is, with the possible exception of some recently discovered and undated carvings at Eggerness (Gray 1992), the southernmost known example of such symbols and is the only one in southern Scotland which is definitely still in its original location as it is located on a rock fast boulder. The site consists of a stone built central rampart on the hilltop, a bank and ditch around it, a guard hut and some outlying ramparts. The symbols are located at the entrance to the fort on the south east side in a hollow between two natural spurs of rock and a gap in the fort's wall. On the left hand side as one enters there are three groups of symbols on an exposed rock face. On the left is a double disc and Z rod whilst to the right is a S-dragon with a small symbol beside it. Centrally beneath these two symbol sets is a horned circle with rudimentary human features. Excavations on the site failed to produce any evidence of early Medieval occupation (Thomas 1960) though the supposed evidence for Iron Age occupation (*ibid*) is unreliable (Laing 1975b).

It has generally been accepted that the Pictish symbols were left by a raiding party (Laing

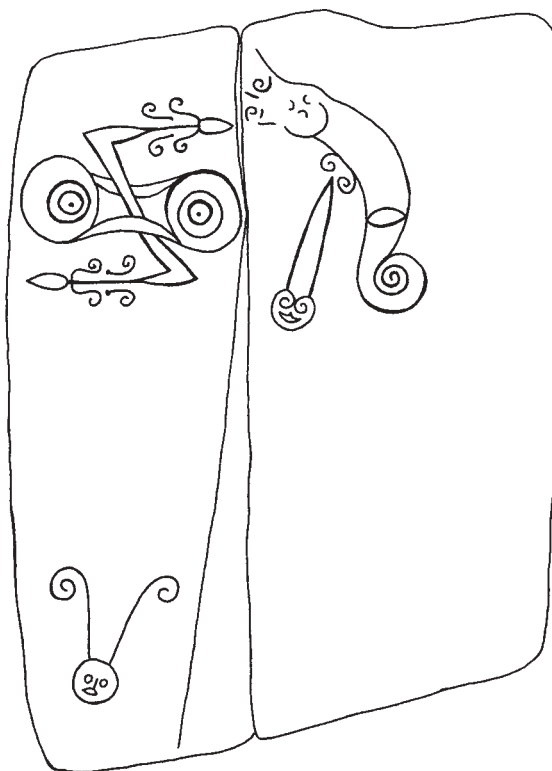


Figure 1

The Pictish symbols from Trusty's Hill (after Allen and Anderson 1903, vol III, fig 508)



1975a, 33; Laing and Laing 1979, 247; Oram 1993, 14; Radford 1953; Stell 1986, 121; Thomas 1960; Thomas 1963, 86; Thomas 1981, 288) and this hypothesis has attained the status of dogma or "factoid" (Millett 1990, xvi) without other possibilities being explored. The most favoured idea is that Pictish symbols in southern Scotland "commemorate Pictish leaders who fell in attacks on fortresses" (Radford 1953, 238-9) and it has even been suggested that the vitrification of the rampart at Trusty's Hill is evidence of lean-to shacks being burnt by the victorious Picts (Laing 1975a, 33; Stell 1986, 121), despite the lack of dating evidence for this event or any evidence that it was not accidental (Ralston 1986). Thomas has even proposed a possible translation of the symbols as "Memorial to a dead King of the S-Dragon group set up by his champion" (1963, 86) but this should be regarded as entirely hypothetical and completely ignores one of the symbols.

The dating of class I symbol stones is very difficult and ridden with problems. It is based upon the assumption that all class I stones predate the inception of class II stones, which is stylistically likely in the majority of cases but perhaps not in all, and that the erection of class II stones began with the advent of Christianity in Pictland, which again is likely in some cases but not necessarily all. There are also problems of how long the process of conversion to Christianity took, as it is likely to have been a long and drawn out process, and how long class I stones may pre-date class II by (Thomas 1984). If one accepts all these assumptions then class I stones probably date to the sixth and seventh centuries A.D. Any attempt at closer dating would rely upon constructing a historical framework and then deciding the most likely time for the symbols to have been carved within this framework. Unfortunately the documentary sources are simply too scanty and are open to such differing interpretations that such a historical framework is blatantly unreliable. Similarly the lack of any closely datable artefacts from Trusty's Hill removes the possibility of dating the symbols by assuming that they are of the same date as the occupation of the site.

Perhaps the best parallels for the Pictish symbols at Trusty's Hill are the boar carving and Ogam inscription at the Dalriadic fort of Dunadd, which also lies outside Pictish territory and is often thought to mark the Pictish military victory of Aengus in 736 A.D. (Curle 1940, 67; Jackson 1965, 302; Thomas 1963, 40; Wainwright 1959, 275). If this theory is correct then "it is difficult to understand why the boar and Ogam were not obliterated when the Scots regained control of mid-Argyll?" (Alcock 1981, 167). It has been suggested that Dunadd was not reoccupied after the Pictish victory (Jackson 1965, 302) but this is contradicted by dating evidence from the site (Lane 1984, 46-7). Thus the Pictish boar and Ogam must have been acceptable to the Scots which suggests that more complex Picto-Scottish interactions took place at Dunadd than has previously been envisaged. The symbols represent some form of cross cultural exchange, perhaps the Scottish use of Pictish symbols, a Pictish cultural hegemony (*ibid*, 56) or a military alliance (Cessford 1995). The supposed documentary evidence in the twelfth century *Life of Saint Kentigern*, which is taken to indicate the presence of a Pictish symbol stone at Traprain Law recording the death of king Lewdon (Radford 1953, 238), can safely be dismissed because of its late date and the fact that there is no evidence that the stone mentioned had Pictish symbols at all. Before looking at the question of whether the Trusty's Hill symbols may have been defaced it is worthwhile to consider other possible explanations for the symbols.

What of the suggestion that other groups occasionally adopted Pictish symbols and used

them for their own purposes? (Lane 1984, 56). This certainly seems to have occurred at other places in southern Scotland. The carving of a salmon at Borthwick Mains near Hawick (Stevenson 1950) is discernibly different from those found in Pictish territory (Gordon 1966, 220) and is likely to be a marker denoting fishing rights on the Teviot erected by local Britons imitating the Picts (Cessford 1993). Likewise the symbols on the Whitecleugh silver chain (Henderson 1979) are likely to be of British rather than Pictish origin. The distribution of these chains shows they can be linked to the kingdom of Gododdin (Alcock 1983, 14; Cessford 1994) and the Pictish symbols are probably indicative of the adoption of these symbols by the aristocracy of Gododdin. There is good evidence that other groups occasionally adopted the Pictish symbols for their own purposes when they wished to and it is eminently possible that this may have happened at Trusty's Hill.

It has been suggested that the Pictish symbols at Edinburgh (Stevenson 1950, 207) and Borthwick Mains are linked to Pictish settlement south of the Forth (Laing 1975, 26). The idea that the Gallghaidhil of Galloway were Pictish, which is how they are often described in documents, is of course a myth due to their perceived fierceness and strange customs rather than their ethnic origin (Oram 1993; Truckell 1989), but the possibility of a small scale settlement of Picts should not be dismissed out of hand. The early Medieval period saw many large and small scale movements of population and a movement from northern to southern Scotland could easily have taken place.

All the arguments that the Trusty's Hill symbols were carved by Pictish warriors assume that these were engaged in offensive military activities. The Gododdin poem records that Pictish warriors including Llif, the foreign horseman from beyond Bannog, and Bubon, the savage lion from beyond the sea of Iddew, fought as allies of the Britons of Gododdin (Jarman 1988, 18-9 and 62-3). It has been suggested that at the battle of Nechtansmere in 685 A.D. the Northumbrian army under Ecfriht faced an alliance of Picts, Scots, Irish and Britons from the kingdom of Strathclyde (Kirby 1991, 100). Such "temporary links across racial lines" (Dumville 1989, 220) may well have been relatively common in a constantly changing series of military alliances in northern Britain. The Britons of Rheged could easily have sought Pictish allies against Northumbrian expansionism or Irish aggression and, given the activities of a warband from Rheged in Ireland between 682 and 709 A.D. (Smyth 1984, 25-6), it is not impossible that some of Rheged's population supported the grand anti-Ecfriht alliance of 685 A.D. Pictish warriors at Trusty's Hill could thus well have been allies rather than aggressors.

In his controversial work Anthony Jackson has argued that the Pictish symbol stones were linked to marital alliances between matrilineal clans (1984). Whilst many elements of Jackson's work, such as his acceptance of Pictish matrilineality are questionable (Driscoll 1986), the basic marriage idea is plausible. Aristocratic marriages across ethnic boundaries certainly occurred in northern Britain at this time. The Northumbrian Eanfrith married a Pictish princess whose son Talorcan became king of the Picts (653-7 A.D.) (Miller 1978) whilst the *Historia Brittonum* records that Oswiu, another Northumbrian noble, married Rhiainfellt the great-granddaughter of Urien of Rheged in the 630's (Kirby 1991, 90). An undocumented marital alliance between the ruling aristocracies of Pictland and Rheged, which could have been commemorated by a Pictish symbol stone at Trusty's Hill, may well have happened.

Next to the carving of the S-dragon is a small symbol which has been variously identified as a whetstone (Radford 1953, 237), sword (Thomas 1963, 53) or triskele-headed pin (Laing and Laing 1984b, 266-7). The identification of the symbol as a sword appears the most likely but total certainty is impossible and it may be a pin. Pins were relatively common dress fasteners in early Medieval Scotland and a short pre-Norse thistle-headed pin was found at Tynron Doon (Williams 1971, 113). This pin is 5.7cm long and decorated with three areas of cross hatching, a scribed line and a row of dots. It displays parallels with a number of other Scottish pins, similar examples have been found at Buston crannog in Strathclyde (*ibid*), and the Broch of Burray and Buckquoy in Orkney (MacGregor 1985, 120). In particular the cross hatching on the Buckquoy pin closely parallels the Tynron Doon example. These parallels between the material culture of southern Scotland and Orkney imply some form of cultural interaction between Pictish and British groups. Such interaction underlines the fallacy of unthinkingly assuming that the relationship between these two ethnic groups was uniformly violent and antagonistic.

Recent excavations at Edinburgh Castle uncovered a battered double-sided bone comb with ring and dot ornament. This comb is of a type normally found in Orkney, Caithness and the Western Isles which usually date to the Norse period, but the example from Edinburgh and another from the Broch of Birsay appear to be of pre-Norse date (Foster 1990, 162). The Pictish symbol stone with crescent and V shaped rod and another damaged symbol found in a footbridge in Princes Street Gardens (Stevenson 1950, 207) is probably associated with the occupation of Edinburgh Castle. Do the comb and symbol stone represent Pictish settlement (*ibid*), a marriage alliance, the adoption of the symbols by a local group or an attack on the site? The idea that the stone was put up to commemorate the death of a Pictish leader in an attack is the explanation which least satisfactorily accounts for the presence of the comb found at the Castle.

The name Trusty's Hill is sometimes thought to indicate Pictish occupation as Trusty is thought to derive from the Pictish personal name Drust. Whilst there is a tradition of a king of this name ruling in Galloway (532-8 A.D.) this is too late to be reliable and Trusty could equally well be derived from other Celtic names. The Medieval Tristan legend is widespread throughout all the Celtic regions and there is little that is specifically Pictish about it (Padel 1981).

What then of the possibility of Pictish symbols being left by raiding parties to commemorate fallen leaders and then subsequently despoiled by the local population? The lower symbol on the stone from Edinburgh has certainly been damaged beyond recognition. Given that the upper symbol has not been disfigured and that the stone was subsequently incorporated in a bridge there is no reason to assume that the disfigurement was deliberate. None of the other Pictish symbols from southern Scotland show any signs of having been deliberately damaged.

In a recent study of the Pictish symbols Ross Samson argued that they should be regarded as making up Pictish personal names, which were usually composed of two symbols (1992). The double disc and Z rod is the second most common symbol on class I stones occurring fifty-four times (*ibid*, 45) whilst the S-dragon or hippocamp (Thomas 1961, 53-6) is also quite common. It is therefore plausible, if one accepts Samson's theory, that these make up a Pictish personal name which could easily have been carved by a group of raiders,

though not necessarily to commemorate a dead leader. The other two symbols at Trusty's Hill are unique. The small object that has been variously interpreted as a whetstone, pin or sword (see above) is most likely to be some form of bladed weapon. Though it has been linked to the symbol known as a tuning fork or broken sword (Thomas 1963, 52-3) it is clearly different and probably has very little relationship to the tuning fork. Neither does the ornate pommel with scrolled decoration bear any resemblance to the sword pommels on class II stones (Laing and Laing 1984a, 16-7). It could, however, be an attempt to depict an item similar to the ornate silver pommel found in the Ninian's Isle hoard (Small, Thomas and Wilson 1973 Vol 1, 58-60). The carving of the sword at Trusty's Hill has been described as a "dagger pointing at its [the S-Monster's] belly" (Feachem 1963, 131). Might it not therefore have been added to the original two symbols to denote either a real or wished for victory over the raiders who had carved the other symbols? It could thus be translated as 'we killed' or 'death to'.

The lower symbol is a circle with rudimentary human features and two spiral horns projecting from the top. Unfortunately the symbol appears to have been retouched sometime in the modern period which makes its precise original form impossible to ascertain. Although there are no exact parallels for this symbol in Pictish sculpture some horned figures are known. There are a few fantastic scenes on class II stones which are exceedingly difficult to interpret but which largely consist of bird- or beast-headed men (Henderson 1967, 139-40). One of these from Kettins in Angus shows a figure in a long cloak with horns protruding from the head (*ibid.*). A figure placed between two animals in a fragment of an architectural frieze at Meigle has been variously interpreted as a classical Triton, mermaid or Celtic god (Cruden 1957, 21; Henderson 1967, 140-2). The classic cross-legged pose and the composition of the various elements however leave little doubt that this is in fact a 'Cernunnos' figure (Ritchie 1989, 61; see Green 1989, 86-96) similar to the famous example on the Gundestrup cauldron (Bergquist and Taylor 1987). The Cernunnos's horns have changed into serpentine coils but this carving does demonstrate the continuation of an, originally at least, horned member of the pagan Celtic pantheon well into the early Medieval period.

Stone carvings of horned Romano-Celtic Gods or warriors are "endemic to Northern Britain" during the Roman period and have been found at Beckfoot, Maryport and Moresby in Cumbria (Green 1989, 97; Ross 1961). Figures with horns are also depicted on tenth century Northumbrian sculpture at Kirby Stephen in Cumbria (Bailey and Cramp 1988, 120-1) and Gainford in County Durham (Cramp 1984, 81-2). The horns on the Kirby Stephen figure point downwards and it is likely that this represents a "bound devil" (Bailey and Cramp 1988, 121) whilst the Gainford cross-shaft probably also represents the devil.

Figures wearing horned headgear are depicted on seventh century metalwork from eastern England including an iron and bronze pin in grave 161 at the Buckland cemetery (Evison 1965; Evison 1987, 84-5 and 251-2), a piece of silver foil from Caenby (Bruce-Mitford 1978, 206-7) and two artefacts from Fingelsham, a bronze pendant from grave 138 and a gilt buckle from grave 95 (Chadwick-Hawkes, Ellis-Davidson and Hawkes 1965). The best depictions are a pair of figures with spears and helmets which occur four times on the Sutton Hoo helmet (Bruce-Mitford 1978, 186-9). Their headgear consists of two downward pointing flaps, a central rectangular shape above the figures' eyes and a pair of broad up-

ward sweeping horns which curve inwards at the top and end in birds' heads (ibid, 188-9). Similar figures are found in Scandinavia and as a figure at Torslund has only one eye it is likely that these figures are dancing priests or warriors involved in a ritual linked to the god Woden/Odin (Ellis-Davidson 1988, 88-9). The metalwork found in eastern England is of the same date as the Trusty's Hill symbols and is closer in form to the horned head carved there than any of the horned stone carvings which have been mentioned.

Whilst the Pictish stones at Kettins and Meigle suggest that the horned head at Trusty's Hill could have been carved by a Pict this is unlikely and it was probably executed by a local. What exactly the symbol meant is debatable but the Roman period carvings and Anglo-Saxon metalwork could indicate that it was derived from depictions of Celtic or Germanic pagan Gods and may have been used by the Christian Britons, or possibly Northumbrians as the Angles seem to have been well established in this area at quite an early date (Brooke 1991, 306-7), as a sign for pagan. The tenth century Northumbrian sculptures suggests that alternatively the horned figure may have been the devil. Thus the horned figure may have meant either 'heathen' or 'devil'.

If we accept that the Trusty's Hill symbols record a Pictish raid then they probably represent a Pictish personal name made up of an S-dragon and a double disc and Z rod. This was subsequently altered by the addition of a sword and a horned head meaning 'we killed/death to' 'the heathen/devil'. Alternatively it could be that the sword and horned head are simply unique atypical symbols carved by a Pict. Despite this proviso the evidence appears sufficiently strong for the theory that two of the symbols were carved by Pictish raiders and the other two were added subsequently by the local population to be the most likely explanation for the Trusty's Hill symbols.

The Pictish symbols at Trusty's Hill are of great importance because they are the southernmost known examples of such symbols and are definitely still in their original location. The idea that they record the death of the leader of a Pictish raiding party, whilst initially attractive, must hinge upon the question of whether or not they were despoiled after the Picts' departure. Exactly why the symbols were carved is impossible to determine but possible alternatives to the raiding theory, which remains the most likely possibility, include the adoption of Pictish symbols by the local population, small scale Pictish settlement, military cooperation and intermarriage.

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## THE BRUCES OF ANNANDALE, 1100-1304

by  
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Responsible for writing up the Bruces before Robert I for the planned *New Dictionary of National Biography*, I quickly found that none of the existing accounts was satisfactory. The following account of the family with the detailed citation of authorities (which will not be in *NDNB*) is the result of a new investigation of the sources. During the war of independence the Scottish lands of the Bruces were given to English magnates; their charter room was emptied by these new owners and its contents passed to the Dukes of Lancaster, and hence into the English Public Record Office, as Duchy of Lancaster Miscellaneous Charters; this is the only significant Scottish family archive from before 1300, and contains a number of charters relating to Annandale;<sup>1</sup> it is fortunately supplemented by the Drumlanrig collection of documents relating to the Johnstones, tenants of Brus, and of course by the cartulary of the Brus foundation, Guisborough priory in north Yorkshire.<sup>2</sup> The other main fief of this branch of the family, Hartness, lies in County Durham, and hence fell under the palatine jurisdiction of the Bishops of Durham; for this reason the family does not figure in the royal records of England as frequently as might be expected, but there is much in the Pipe Rolls, now in print up to 1222.

The problem of how to refer to members of a lineage where all save one were called Robert beset even medieval historians of the house;<sup>3</sup> in modern times it was ducked by *The Scots Peerage*, where the entry is under 'Carrick', but without numbering,<sup>4</sup> as is the account in Robert Surtees' *History of the County Palatine of Durham*, while the numbering in the description of the extraordinary sixteenth-century Bruce cenotaph in the parish church at Guisborough is misleading.<sup>5</sup> Here I propose to give Roman numerals to the lords of Annandale consecutively, whatever their name, and to give no number to those who did not hold the lordship.

In 1934 F. Wormald published a liturgical calendar from Guisborough priory from one manuscript with a collation from another (Laud) giving death-dates by day and month (obits) of the Bruces. Here is the information he gives about the Roberts and William; I have numbered the obits for ease of reference.

1. 17 February, Robert de Brus of Annandale (*Anantia*).
2. 31 March, Robert de Brus. Laud has Robert de Brus *tertius*.
3. 21 April, Robert de Brus.
4. 11 May, Robert de Brus founder. Laud adds: of this house.
5. 16 July, William de Brus. Laud adds: of Annandale.
6. 19 August, Laud only has: Robert de Brus of Annandale.
7. 26 August, Robert de Brus.

1. R. Gladstone, 'The Early Annandale Charters and their Strange Resting Place', *Transactions, Dumfriesshire and Galloway... Society*, 3rd series, vi (1991), 137-46.

2. W. Fraser, *The Annandale Family Book of the Johnstones, Earls and Marquises of Annandale*, 2 vols (1894). Fraser includes a number of Bain's summaries of documents from the Duchy of Lancaster collection. *Cartularium Prioratus de Gyseburne*, ed. W. Brown (Surtees Soc. 86, 89), hereafter *Guisb. Cart*.

3. *The Chronicle of Walter of Guisborough*, ed. H. Rothwell (Camden Third Series, lxxxix, 1957), 259 n. b. This is the chronicle referred to by older historians as Hemmingburgh.

4. *The Scots Peerage*, ed. J. Balfour Paul, i (1904), 7; ii. (1905), 428-35. Hereafter I refer to the latter account simply as *SP*.

5. R. Surtees, *History of the County Palatine of Durham*, iii (1930), 90-94. On 91 n. 'Robert Brus seventh of the name, Competitor... son of 'sixth of the name' is father of King Robert I! W Brown, 'The Brus Cenotaph at Guisborough', *Yorkshire Archaeological Journal* (hereafter *YAJ*), xiii (1894-5), 226-61.



Obits 6 and 7 relate to the same person, for one is clearly an error; since we cannot tell which, I propose to treat obit 7 as the correct one, since Wormald regarded that MS as the best text. We can confidently attribute three of these obits: 2 to Robert V (the Competitor) who died in 1295 on that day according to Walter of Guisborough, 4 to Robert I and 5 to William III who died probably in 1212. This leaves obits 1, 3, and 7 to be attributed to the other Roberts. There is evidence that Robert VI, son of the Competitor died soon after Easter (29 March) and soon before 4 April, in 1304; his obit would be very close to that for his father, and is therefore not in the calendar. For 1, 3, 7 we have to find Roberts earlier than the Competitor.

**Robert I**, of whom an account was given by Farrer, dismissing fables (repeated in *Scots Peerage*) of his supposed father (Adam) and grandfather (Robert), especially the story that one of them fought at Hastings;<sup>6</sup> he was ‘conquisitor of Cleveland, Hartness and Annandale’, the conqueror (i.e. acquirer) of these lands.<sup>7</sup> Robert came from Brix in the Cotentin peninsula, the endowment of Henry, youngest son of King William I, who, after he became Henry I in 1100, set about conquering Normandy, a task completed at Tinchebrai in 1106. Robert undoubtedly helped in this and was rewarded with extensive estates in Yorkshire, some by 1103, the rest perhaps by 1110.<sup>8</sup> But David son of King Malcolm III may also have been involved, for, after he became an English earl by marriage, he confirmed the gift which Robert had made to St Mary’s York of the church of ‘Karkarvilla’ for the souls of David, his wife and parents; Karkarvilla is Querqueville in the Cotentin peninsula, and David must have been its lord.<sup>9</sup> It is possible that Robert helped David to compel Alexander I to yield the ‘Cumbrian’ (i.e. Strathclyde) and Teviotdale lands which King Edgar had bequeathed to him. They tend to be absent simultaneously from the charters of Henry I before 1124.<sup>10</sup>

Robert founded and generously endowed the Augustinian priory of Guisborough in his fief of Skelton or Cleveland, during the pontificate of Calixtus II, 1119-24, perhaps in 1119.<sup>11</sup> He was witness to charters of David as earl, and David as king gave him Annandale with its castle. The charter is dated at Scone, and has generally been attributed to the king’s inauguration in 1124. It is also sometimes suggested that this was only a confirmation, on the curious assumption that only a ‘Norman’ could have constructed a castle. Robert was a frequent witness to charters of David I, whether issued in Scotland or England, and was usually named first among his Anglo-French barons. He was at Henry’s court with David at Easter 1130 and may be presumed to have taken also the 1127 oath acknowledging the Empress Matilda’s right to inherit the English throne.<sup>12</sup>

Nonetheless, when Henry I died, Robert supported Stephen; he was present at Stephen’s siege of Exeter in 1136, and later was with him at York,<sup>13</sup> and his friendship with David, who invaded the north of England in 1136 and threatened to do so in 1137, must have

6. W. Farrer, *Early Yorkshire Charters*, ii (1915), 11-12; hereafter *EYC*.

7. *Guisb. Cart.* ii. 326.

8. P. Dalton, *Conquest, Anarchy and Lordship, Yorkshire, 1066-1154*, (1994), 92-94; P. King, ‘The Return of the Fee of Robert de Brus in Domesday’, *YAJ*, ix (1988), 25-29.

9. A.C. Lawrie, *Early Scottish Charters*, (1905), no. LII.

10. I owe this point to a lecture by Dr Judith Green.

11. D. Knowles and R.N. Hadcock, *Medieval Religious Houses, England*, (1971), 140, 158; they favour 1119.

12. Dalton, *Conquest, Anarchy and Lordship*, 107, 306-7; *Regesta Regum Anglo-Normannorum*, ii (1956), ed. C. Johnson and H.A. Cronne, nos 1639, 1451, 1654; A.O. Anderson, *Scottish Annals from English Chronicles*, (1908), 162-63.

13. *Regesta Regum Anglo-Normannorum*, iii (1968), ed. H.A. Cronne and R.H.C. Davis, nos. 337, 985.

cooled. The crisis came in 1138 when David and a large Scottish army was confronted at Cowton Moor, near Northallerton, by the men of northern England, including Robert de Brus and his older son, Adam, a 'youth'.<sup>14</sup> Here Robert was sent to dissuade David from his attack, and a memorable speech about David's former reliance upon English and Normans is put in his mouth by Ailred of Rievaulx. But more significantly Ailred and other sources tell of Bruce's formal renunciation of homage, an act very much rarer in practise than in later 'feudal' theory. It struck contemporaries very forcibly, and we can believe that it had a profound effect upon their relationship.<sup>15</sup> There is no evidence that the breach was healed, and it seems likely that Annandale was now lost to this Robert.

Robert married an Agnes, whom Farrer, rejecting Dugdale's identification with a daughter of Fulk Paynel, identified first as daughter of Geoffrey Bainard, sheriff of York before 1100; later he decided she was a daughter of Richard de Surdeval, but recent scholarship favours Geoffrey Bainard.<sup>16</sup>

They had two sons and a daughter: (1) Adam who succeeded to Cleveland, and died in 1143, being succeeded by his son, another Adam, whose death-date, 1196-7, is discussed below; in his youth his estates were depleted but his descendants were lords of Skelton until 1272, when Peter de Brus died childless and the family estates were divided among his sisters.<sup>17</sup> (2) Robert II, below. (3) Agatha, whom Farrer decided to make a daughter of Robert II on the evidence of the document recording her father's grant of a marriage portion to her on the occasion of her marriage to Ralph Taillebos (Ralph son of Ribald, of Middleham). Subsequently Sir Charles Clay rightly questioned Farrer's dating and restored the grant to Robert I; it seems to be the only surviving document given by him.<sup>18</sup> *SP* gives a middle son, Pagan de Brus, without authority and Farrer gives him as Peter de Brus, without descendants; there certainly was a Peter de Brus but he does not seem to be acknowledged as Robert I's son and was more probably his brother.<sup>19</sup> The date of Robert I's death is given in the Guisborough founders' history of the fourteenth century as 11 May, 1141.<sup>20</sup> This source, which follows the senior line of Skelton, used a calendar with obits but guessed at year-dates, which in all cases, including here, are wrong; John of Hexham places Robert's death about Easter (19 April) 1142,<sup>21</sup> and taken with obit 4, this places his death on 11 May 1142. The founders' history says that he was buried at Guisborough, probably correctly.

**Robert II**, lord of Annandale. He is described in one of his father's charters and on his own seal as *iuvenis*, 'youngster', presumably in the American sense of 'junior'.<sup>22</sup> But he

14. The evidence is well assembled in Anderson, *Scottish Annals*, 176-210; for Adam de Brus, *Chronicles of the Reigns of Stephen, Henry II and Richard I*, ed. R Howlett (Rolls Ser. 82), iii. 182-83.

15. *Chronicles of Stephen...* iii. 192-95 for Ailred; the other main source is Richard of Hexham in *Chronicles of Stephen ...* iii. 156-59.

16. *EYC*, ii. 12; vi. 4*n*; in *YAJ*, lx, 28, Peter King favours Geoffrey Bainard, and thinks that Brus acquired the Surdeval lands not by marriage but from Henry I; so does P. Dalton, *Conquest Anarchy and Lordship*, 91-94.

17. For a brief account of the Bruces of Skelton, I. J. Sanders, *English Baronies, a Study of their Origin and Descent, 1086-1327*, 77-78.

18. British Library, Cotton Charter, viii. 21, printed *EYC*, ii no. 650. Clay's commentary is *EYC*, v. 299-301. Note that *SP*, ii. 429 gives her paternity correctly.

19. *EYC*, ii. 15; *EYC*, ii. no. 648 is witnessed by *Ada filio meo, Petro de Brus*, which scarcely suggests that they were brothers.

20. Dugdale, *Monasticon Anglicanum*, vi. (1830), 267.

21. *Works of Symeon of Durham*, ed. T. Arnold (Rolls Series, 75), ii. 312.

22. *YAJ*, xiii, 250. He is often said to have been called *le meschin*; I have not found this anywhere and presume that it is a translation of *iuvenis*.

may well have been a very young man in 1138, when, according to the founders' chronicle, having been given Annandale by his father, he was in David I's army at Northallerton, was taken prisoner by his father, handed over to the king [Stephen], who remitted him to his nurse, i.e. his mother; staying with his father [i.e. in Yorkshire] he claimed that there was no wheat in Annandale, wherefore his father gave him Hartness [in Co. Durham], to hold of the lords of Skelton. This is the only evidence that Robert II was at Northallerton, or was taken prisoner; it is late, seems to mix up a tale of infancy with one designed to explain tenure of Hartness by junior from senior line, on most improbable grounds, particularly since Robert I seems to have died seized of Hartness.<sup>23</sup> The tale may be connected with the grant by Robert IV of a 'weight' of wheat, six measures of the borough of Durham, to Finchale priory annually from his manor of Hart.<sup>24</sup>

The Robert de Brus who was at a meeting of northern barons at Durham in 1141 was probably Robert II, already lord of Annandale and possibly of Hartness.<sup>25</sup> By this time David I was in control of Northumberland and these men sought to coerce the clergy of Durham into electing William Cumin, David's chancellor, as their bishop, hence pushing the frontier of the king's authority to the Tees. A family division of lands might well have included Hartness with Annandale as lying in the power of King David, but even so the division did not give all the 'English' lands to the Skelton branch. Under Henry II Adam de Brus had 15 knights' fees in Yorkshire, but his uncle Robert also had five.<sup>26</sup>

The tale of St Malachy's curse upon Annan when Robert hanged a thief he had promised to pardon, must belong to the 1140s,<sup>27</sup> but we do not know when Annan castle was abandoned. Robert gave a house in Lochmaben to St Peter's hospital York, for the souls of, among others, his 'infants', so probably nearer 1150 than 1170;<sup>28</sup> at this time, presumably, the village and the great motte and bailey at Lochmaben were under development.

Robert frequently witnessed charters of David I in the last decade of his reign, and those of Malcolm IV, but the accession of William in 1165 seems to have changed his circumstances, for he witnessed only three of that king's numerous charters over thirty years.<sup>29</sup> He witnessed no charter of Henry II,<sup>30</sup> but unlike King William, he supported Henry in the rebellion raised by the young king Henry in 1173-74,<sup>31</sup> a wise political judgment, but suggesting that he was not close to the Scottish king. Between 1165 and 1173 that king at Lochmaben (i.e. he had then taken sasine of the barony (as he called it)) gave a charter confirming possession of Annandale to Brus as Robert and his father had held it under David I and Malcolm IV. He went on to detail exceptions: six kinds of serious criminal offence, 'regalia belonging to my regality, which cases I have reserved to myself'; in these

23. *Guisb. Cart.* ii. 322 shows that he held Tynemouth church at his death.

24. *Charters ... of the Priory of Finchale.* ed. J. Raine (Surtees Soc. 5, 1837), 134, no.144.

25. *Symeon of Durham*, i. 144.

26. *Red Book of the Exchequer*, ed. Hubert Hall, 434-35, 40, 53, 77, 88, 117.

27. *Chron. Lanercost*, 160-61; R.C. Reid, in *Transactions Dumfriesshire and Galloway...Society*, 3rd series xxxii, 155-66; J. Wilson, 'The Passage of St Malachy through Scotland', *SHR*, xviii (1921), 69-82.

28. *EYC*, iv. no.651.

29. Lawrie, *Early Scottish Charters*, index under Brus, Robert de, where father and son are unfortunately not distinguished; the forthcoming edition of David I's charters by Professor Barrow will clarify this matter; *Regesta Regum Scottorum*, hereafter *RRS*, i. and ii, indices under Brus, Robert de.

30. I owe this information to Sir James Holt.

31. *Chronicle ...of Benedict of Peterborough*, ed. W. Stubbs (Rolls Series, 49), i. 51 n.

arrests will be made by a man of Robert's fief, but chosen by the king, and judgment will be before the king's justices. True, the service due, ten knights, is defined and includes a concession - castle guard will not be due - but the meaning of this charter is surely that the judicial franchise of Robert de Brus in Annandale was carefully clipped, by the personal intervention of the king.<sup>32</sup> Nowhere else does King William speak so imperiously of his rights. Robert also compromised with Bishops Ingram and Jocelyn of Glasgow over their respective rights in the churches of Annandale, which Robert had granted to the priory of Guisborough.<sup>33</sup>

Robert married Eufemia, niece of William earl of Aumale,<sup>34</sup> by whom he had three or four sons:<sup>35</sup> (1) Robert, to whom King William gave Isabel his illegitimate daughter in marriage in 1183, with Haltwhistle in Northumberland,<sup>36</sup> possibly as an attempt to build a bridge with the next generation of Bruces. This (unnumbered) Robert had died in his father's lifetime, without surviving issue, before the king gave her to a second husband in 1191.<sup>37</sup> This was presumably the Robert who died on 21 April (obit 3), the only Robert not described in the calendar as 'of Annandale.' (2) William III below. (3) Bernard. (4) Master Hugh, a cleric, for whose parentage there is no evidence. He has been described as a son of Robert I, but witnesses charters of Robert II in later life and of William III, so is much more likely to be a son of Robert II.<sup>38</sup> The daughter Agatha sometimes attributed to Robert II was his sister (see above).

Robert held his fief of Hartness from his nephew, Adam lord of Skelton; from a Peter de Brus, presumably his father's brother, he received the half knight's fee of Edenhall in Cumberland.<sup>39</sup> When his debts of £209 and £27. 6s. 8d. to Aaron the Jew were recorded by the crown (which inherited them), they were entered under Cumberland, while his debt for the scutage for Wales, 50s., was entered under Yorkshire, where it was admitted in 1192 that 'he has nothing in this county'.<sup>40</sup> In 1194 and 1195 his son and successor was accountable for scutage for the Cumberland fief, but in 1194 Robert was accountable for part of the scutage imposed in 1194 upon 'those who have quittance by the king', including his nephew, Adam [of Skelton], a debt ('the third scutage of King Richard') repeated yearly till William de Brus paid it off in 1209.<sup>41</sup> Unless the name Robert is an error for William,<sup>42</sup> Robert II died in 1194, perhaps after the king's return in March, though the quittance could have been agreed with the justiciar before that date. The calendar offers 17 February (obit 1) and 26 August (obit 7), but the latter seems too late to allow William to succeed before the September audit; marginally then, 17 February 1194 is to be preferred.

32. *RRS*, ii. no. 80.

33. *Glasgow Reg.* i. nos 72, 73; *Guisb. Cart.* ii. 341-2.

34. *EYC*, ii. no 655; iii. no. 1352.

35. *EYC*, ii. no. 658 = *Feodarium Prioratus Dunelmensis* (Surtees Soc. 58), 138 n.

36. *Arbroath Liber*, i. no. 37, the only charter of this Robert I have noted.

37. A.O. Anderson, *Early Sources of Scottish History* (1922), ii. 306, 325; in *RRS*, ii. index under Brus, Robert de II, this son is identified with his father, whose death is placed in 1191.

38. For a full account of Hugh see D.E.R. Watt, *Biographical Dictionary of Scottish Graduates to A..D. 1410*, (1977), 67.

39. F.W. Ragg, 'The Earlier Owners of Edenhall', *Transactions, Cumberland and Westmorland ... Society*, new series, xiii (1913), 199-208 shows that Robert inherited Edenhall from Peter under Henry II. Peter, therefore cannot be the son and heir of Adam de Brus lord of Skelton, who died after Robert II.

40. *Pipe Roll*, (hereafter *PR*), *3Ric. I*, 55; *PR 2Ric I*, 73; *PR 4Ric I*, 218

41. *PR 6Ric I*, 122; *PR 7Ric I*, 216; *PR 6Ric I*, 162; *PR 11 John*, 137.

42. See under William III for such an error.

**William III** succeeded when punitive taxation and serious inflation began to afflict the English baronage; by September 1194 he had paid 10s. (under Cumberland) for the scutage imposed by Richard I after his second coronation (17 April 1194), the first clear evidence that his father was dead.<sup>43</sup> Thereafter he appears in many Pipe Rolls charged with the scutages of Richard I and John. In 1197 he escaped from the £209 and paid off the £27 (it cost him £40) borrowed from Aaron; he also paid to escape service in France.<sup>44</sup> It is noteworthy that in 1199, while the first scutage after John's coronation was charged in Cumberland to William, in Yorkshire 'Adam de Brus renders account for the fee which was Robert de Brus's.' This was repeated in 1200, but in 1201 and thereafter 'Adam' became 'William', surely correctly, for Adam had died in 1196-97 and been succeeded by his son, Peter.<sup>45</sup>

William appears once as a witness to charters of his namesake, king of Scots, and confirmed his father's grant of Annandale churches to Guisborough priory; he was a benefactor on the Solway of Melrose abbey.<sup>46</sup> He pledged his lands of Hartness as warranty in an exchange of lands in 1198, and helped the burgesses of Hartlepool to buy their market and fair charter from King John.<sup>47</sup> He seems to play no part in the politics of that king's reign, but must have handed his son over as hostage for King William's good faith after the treaty of Norham (August 1209), for on 13 June 1213 John commanded that Peter de Brus of Skelton send 'the brother of Robert de Brus', a hostage, to him.<sup>48</sup> William de Brus was now dead.

He married a Christina, who survived him and married secondly Patrick earl of Dunbar.<sup>49</sup> She and William had three sons: (1) Robert IV below; (2) William, who witnessed with Robert IV<sup>50</sup> and was presumably the William de Brus who witnessed charters of Alexander II between 1221 and 1226.<sup>51</sup> He also witnessed charters of his brother Robert with (3) John de Brus, their brother.<sup>52</sup> William III paid little of the scutages for which he was liable until 1209, when he paid £25, leaving a correct balance of £7. 11s. 8d. due. In the following year he owed £7. 9s. 8d. [!] and paid this off in 13 John, 1211.<sup>53</sup> He therefore seems to have been alive in that year, and was dead by June 1213. He died on 16 July (obit 5) possibly in 1211, more probably on 16 July 1212.

**Robert IV** older son of William, received from King John, in 1215, 30 marks on 5 May, and on 26 June restoration of some lands withheld since his father's death.<sup>54</sup> The grant of a

43. *PR 6Ric I*, 122.

44. *PR 9Ric I*, 11-12.

45. *PR 1John*, 55, 211; *PR 2John*, 109; *PR 3John*, 147; for Peter's succession to Adam in 1196-97 see the addition on *PR 8Ric I*, 185; and *PR 10Ric I*, 43.

46. *Melrose Liber*, ii. appendix nos 3-6; unfortunately these charters are known from copies without witnesses.

47. *RRS*, ii. 390; *Guisb. Cart.* ii. 340-41; *Rotuli Chartarum, 1199-1216*, 86; *Feet of Fines, 10 Ric I*, (Pipe Roll Soc. 24, 1900), 54; *PR 3 John*, 249; *Rotuli de Oblatis et Finibus*, 173.

48. *Rotuli Litterarum Clausarum*, i. 137.

49. *Cal. Docs. Scot.* i. no. 700.

50. *Melrose Liber*, i. no. 72\*.

51. This identification, I discover, had been made by Maitland Thomson, *Inchaffray Charters*, 279. William does not seem to appear in royal charters without year date (1215-21); he is in *Arbroath Liber*, i. no. 131; *Kelso Liber*, no. 6; *Moray Reg. Cart Orig.* no. 5; *Inchaffray Charters*, no. LIV; *Guisb. Cart.* ii. 342; *Cal. Docs. Scot.* i. no. 704.

52. See table at end and *Historical Manuscripts Commission, Fourth Report*, (1873), 493 = *Aberdeen-Banff Collections*, 548.

53. *PR 11 John*, 137; *PR 12 John*, 156; *PR 13 John*, 50. There are no entries for him or his son in the Pipe Rolls for 14 and 16 John (15 John is lacking).

54. *Cal. Docs. Scot.* i. nos. 621, 624.

market and fair at Hartlepool was also confirmed to him.<sup>55</sup> Apart from these gestures to accommodate him to the king's side, Robert played no known part in the baronial movement at the time of Magna Carta, nor in the subsequent civil and Anglo-Scottish war.<sup>56</sup> He gave his mother a terce of his father's lands, presumably also in Annandale,<sup>57</sup> where his brother William may have been resident factor for them both. He appears in the Pipe Rolls for Cumberland in 1222 and 1223 owing scutage for Edenhall, and then for a further scutage in 1226 - the first Cumberland account since 1223, and therefore representing a debt which could be of 1224. I have read the Yorkshire accounts in the Pipe Rolls for Henry III up to 1231, and despite several scutages (which were paid by Peter of the Skelton branch), no liability by Robert is mentioned, and his grandfather's five knights' fees there seem to have been lost sight of; no Robert de Brus is mentioned up to 1229, when the account for the temporalities of the vacant see of Durham also fails to mention him.<sup>58</sup> In 1230 the Yorkshire Pipe Roll claimed that Robert de Brus of Hartlepool owed 30 marks of prests made in the time of King John - which, even if it refers to him, does not mean that he was alive in 1230.<sup>59</sup> After witnessing Alexander II's settlement upon his wife Joanna at York on 18 June 1221, Robert does not seem to figure in English chancery records, nor at all in those of Scotland.<sup>60</sup>

A long tradition ascribed to him the *cognomen* of 'noble', but Professor Barrow has shown that this is an error.<sup>61</sup> The truth seems to be that the family fortunes declined in his time - Edenhall, for example, had been alienated - and Robert did little to improve them by his marriage to Isabel, second daughter of David earl of Huntingdon, for we do not know what her marriage portion was. This marriage took place, according to Fordun, during the lifetime of Earl David, who died in 1219,<sup>62</sup> and the presence of Robert at York in 1221 perhaps confirms that Robert was related by marriage to the Scottish royal house by this date. Their supposed daughter 'Beatrice', married to Hugh de Neville, was a daughter of Robert de Briwes; in a charter Robert refers to the souls of his children<sup>63</sup> but only one son is known, Robert V. It is possible that the William de Brus who occurs after the knights among witnesses to charters of Robert V, and in 1259, was a younger son of Robert IV, but he could also have been a son of William brother of Robert IV.<sup>64</sup>

At the end of this article I give a table of the persons named with some frequency in charters of, or closely connected to, William III and Robert IV. The continuity of their followings is striking, but what we should probably expect where an adult was succeeded by his adult son. There is a marked contrast with the similar exercise carried out some years

55. *Rot. Litt. Clausarum*, i. 217.

56. In the typescripts of Henry III Memoranda Rolls in the Public Record Office, London, Robert appears twice. In a list of stewards from Yorkshire who 'swore to make peace of the debt of their lords' appears *Radulphus de Skipton pro Roberto de Brus. Finem fecit et habet diem* (KR Memorandum Roll 2, for 3 Henry III, m.9). And under Cumberland in 7 Henry III it is noted that Robert de Brus owes scutage for a half fee from the time of Richard I; let him be distrained (LTR Memorandum Roll 5, m. 5d).

57. *Cal. Docs. Scot.* i. no. 700.

58. Public Record Office, E372/ 66-75. The Durham account is on E372/73, m.1

59. *Pipe Rolls of Cumberland and Westmorland, 1222-1260*, ed. F.H. M. Parker (1905), 5, 9, 15; *PR 14 Henry III*, 290. This debt is repeated in the roll for 1231 (E372/75). A Robert de Brus occurs under Essex and Hertford in *PR 14 Henry III* (p.160) but is unlikely to be our Robert.

60. *Cal. Docs. Scot.* i. no. 808.

61. G.W.S. Barrow, *Robert Bruce and the Community of the Realm of Scotland*, (3rd edn. 1988), 23, 331 n. 7.

62. *Chron. Fordun*, i. 281.

63. *Guisb. Cart.* ii. 342.

64. *Guisb. Cart.* ii. 335, 343.

ago by Dr Macquarrie for Robert IV and Robert V, where, it seems to me, there is little continuity; the explanation, I believe, is that a considerable time elapsed between the last charter granted by Robert IV and the first of Robert V.

The date of Robert IV's death is repeatedly given as 1245, a date which can be traced back to Douglas's *Peerage*, but may be in earlier works.<sup>65</sup> It is at least ten, perhaps even twenty, years too late. On the death of John earl of Chester, son of Earl David, in 1237, his lands fell to his sisters and nieces as co-heirs. In the action to recover these lands each sued with her husband, except Isabel, who sued alone, so Robert was then dead.<sup>66</sup> Under Richard bishop of Durham (1228-37) Hartness was in the hands of Peter de Brus of Skelton, evidently in wardship, and before March 1234 the prior and convent of Durham confirmed the gift made by Bishop Richard to Peter de Brus of the liberties of Hartlepool, 'saving in everything the right of the heirs of Robert de Brus when they come of lawful age.'<sup>67</sup> This was surely a reflection on the presumption of Bishop Richard, who in September 1230 had given significant additional privileges to Hartlepool borough, something he could scarcely have done unless its lord, Robert de Brus, was a minor.<sup>68</sup> Robert IV therefore was dead, certainly by March 1234, probably by September 1230; his death could have occurred in any year since 1224, either on 26 August (obit 7) or 17 February (obit 1); in view of his brother William's appearances in Scotland, and their joint witnessing of a charter there about 1220-26,<sup>69</sup> it is possible that Robert was in some way disabled (?*fatuus*) and in his brother's charge between 1221 and his death about 1226.

**Robert V**, 'the Competitor'. According to *SP* his mother was born in 1207 and he in 1210! There is no authority for either date. Chronicle evidence shows that in May 1240 he married a wife born in 1226, and had a son in 1243,<sup>70</sup> suggesting that he was born between 1220 and 1225. He first appears as one of the barons who witnessed Alexander II's undertaking to observe the Treaty of York of 1237, and who wrote to the Pope submitting themselves to papal jurisdiction in carrying it out. These documents are preserved by Matthew Paris under 1244, but the naming of Walter Olifard (who died in 1242) in the second document shows that this date is wrong; the common-sense date is 1237, when Robert was in nonage but old enough to be included in what was clearly a 'round-up' of some forty-five Scottish magnates.<sup>71</sup> On 25 June 1242 he defended an action before the justices of the bishop of Durham, so was of age at that date. In August 1248 he was at Edinburgh with a distinguished company of Scottish magnates including Alexander Comyn earl of Buchan, confirming a charter of his mother;<sup>72</sup> on 4 December they were probably both there with the king, William earl of Mar, the Steward and John Comyn of Badenoch. Later, on 29 July

65. Robert Douglas, *Peerage of Scotland* (1764), 129.

66. *Curia Regis Rolls*, xvi. no. 208; *Close Rolls, 1234-37*, 540; *Cal. Patent Rolls, 1232-47*, 234.

67. *Registrum Palatinum Dunelmense*, (Rolls Series, 62), iii. 46-48; *Guisb. Cart.* ii. 325-26. The prior of Durham is named as Ralph, who died on 4 March 1234.

68. Cuthbert Sharp, *History of Hartlepool* (1816), Appendix, p.i.

69. *Melrose Liber*, i. no. 72\*.

70. Annals of Tewksbury cited in the excellent short article on him in *The Complete Peerage by G.E.C.*, ii, ed. V. Gibbs and H.A. Doubleday, (1912), 358-60; Anderson, *Early Sources*, ii. 533.

71. The texts are translated in Anderson, *Scottish Annals*, 355-57 from Matthew Paris, *Chronica Majora*, ed. H.R. Luard (Rolls Series 57), iv. 381-85. Paris changed the Pope's initial to 'I', or inserted 'I' for the gemipunctus, to fit his dating. I suspect that this misdated document explains the date 1245 usually given for the death of Robert IV.

72. *Guisb. Cart.* ii. 333. *Lindores Chartulary*, nos. XL, XLI; *Historical Manuscripts Commission, Fourth Report*, (1873), 493 (calendared but full date) = *Aberdeen-Banff Collections*, 548 (Latin text, lacks month).

1249, Robert held his court at Dryfesdale in Annandale in company with Walter Comyn earl of Menteith, Earl Alexander and John Comyn, the three Comyn heads of family; it was only two weeks after the controversies at the inauguration of Alexander III at Scone (13 July) in which Earl Walter had played a key role, and the date and company strongly suggest that Robert V was then seen as close to the royal succession.<sup>73</sup>

Over the years he first called himself Robert son of Robert de Brus, then added 'lord of Annandale', finally dropping his patronymic; he was the first of his family to call himself lord of Annandale.<sup>74</sup> Two important stages in his rising importance were deaths, first in 1237 of his uncle, John earl of Chester and Huntingdon, to whom his mother was co-heiress; Henry III prevented succession to the full inheritance, but Isabel received the manors of Writtle and Hatfield in Essex as her share. And secondly, in 1251 or early 1252 her death, when Robert succeeded to these English lands and to her share of the Scottish lands, especially in the Garioch. Robert was now well endowed and it may yet be possible to say that he built the great stone castle of Lochmaben, on the south shores of the loch, from his wealth.<sup>75</sup>

He played little part in the minority of Alexander III; in 1255, when the Comyns were ousted from power, he was among many named as acceptable councillors for Scotland by Henry III, who had appointed him sheriff of Cumberland just before meddling in Scotland, and sacked him just after doing so.<sup>76</sup> But this does not make him an important figure in the Scottish crisis, and, though he was in Scotland in 1257,<sup>77</sup> he did not earn a place on the compromise council of 1258. His activities in England thereafter are obscured by confusion in the indexes to the published patent and close rolls between him and Robert de Briwes, a justice who also held lands in Essex; but their roles can be distinguished. In 1259, in an agreement between the earl of Gloucester, his brother-in-law, and the Lord Edward, he (with a William de Brus, possibly his brother) was named as a friend of the former, the only evidence that he had an association with the English baronial reformers of that time.<sup>78</sup>

In August 1261 he seems to have been in Scotland,<sup>79</sup> but in January 1262 Henry III gave an allowance to him and to John Comyn as long as they were in the king's following.<sup>80</sup> He witnessed royal charters on 18 October and 20 December 1263, and may have been at the English court over these two years.<sup>81</sup> A letter of Robert Neville, sheriff of York, to the king, asked that Robert, Comyn, Balliol, and Percy should help to keep the north for the king, but it was Peter Bruce who was appointed with others to do so on 24 December 1263.<sup>82</sup> However there is no doubt that he was among those ordered to come to the king from the north

73. *Cal. Docs. Scot.* i. no. 1763, unfortunately not included in Dr A Macquarrie's survey of the Duchy of Lancaster charters, 'Notes on some charters of the Bruces...' *Transactions of the Dumfriesshire and Galloway ... Society*, lviii (1983), 72-79.

74. Based upon charters in *Guisb. Cart.* ii. nos. 1168, 1169, 1170, 1179, 1181; *Lindores Chartulary*, nos. XLI (1248), CXVI; charters listed in A Macquarrie, *ante*, lviii (1983), 72-79.

75. There is no satisfactory account of these ruins which, as a print of 1775 shows, were once very much more extensive than what is now visitable. See the print in Fraser, *Annandale Family Book*, i. p. cccxxx.

76. *Cal. Patent Rolls, 1247-59*, 422, 445.

77. *Close Rolls, 1256-59*, 196.

78. *Historical Manuscripts Commission, Report on...Lord Middleton*, (1911), 67-69. Robert may never have known that his name was used in this way.

79. *Lindores Chartulary*, no. CXVI; *Cal. Docs. Scot.* i. no. 2267.

80. *Cal. Docs. Scot.* i. no. 2284.

81. *Cal. Patent Rolls, 1258-61*, 291, 357.

82. *Foedera*, i. 429 (undated); *Cal. Patent Rolls, 1259-66*, 357-58.



on 7 March 1264, and that he was at the taking of Nottingham and the battle of Lewes, where he and Comyn were captured by de Montfort's forces; his son came south to arrange his ransom.<sup>83</sup> Although not at Evesham, his support of Henry III and the Lord Edward probably gained him some credit with them. In 1266 he was among those summoned to help the king reduce Kenilworth castle, and about this time he received the lands of Walter de Falconberg and John de Melsa, the king's enemies, a speculation which brought him £250 and £146 respectively, by agreement of 1268.<sup>84</sup> In January 1267 he was entrusted with Carlisle castle, losing it in April 1268 and in the summer of 1269 he was sent to Scotland on the king's business.<sup>85</sup>

In March 1270 he was at a royal council at Scone, where Alexander III issued a remarkable document recording that Robert acknowledged denying royal rights in the churches of Annandale during a vacancy in the see of Glasgow, and confirming Brus's franchise there; the uniqueness of the document is its language, French, perhaps used because a clerk of Robert drew it up.<sup>86</sup> In May and June his younger and then his elder son received Henry III's protection to join the Lord Edward on his crusade, but there is reason to believe that at least the elder did not sail,<sup>87</sup> which may explain why in October that year Robert was given a protection to join the second expedition under the Lord Edmund. He certainly went, and on his way back visited Clairvaux, though his charter granting 'Esticroft' (unidentified, but in Annandale or Cumberland) to the abbey of Clairvaux to provide lights at St Malachy's shrine, was clearly granted in Scotland, probably after his return.<sup>88</sup>

Robert is less traceable in the 1270s, though he was summoned to serve Edward I against the Welsh in 1276; two years later his son accompanied Alexander III to Westminster, possibly because Robert was in poor health.<sup>89</sup> But he was sheriff of Cumberland in 1283-85,<sup>90</sup> and was one of the barons who swore to accept the Maid of Norway as heir presumptive in 1284. Unlike many magnates, Robert was never sheriff, justiciar or chamberlain under Alexander II or III, but from the death of Alexander III in March 1286, he was called to play a central role in the history of Scotland, which has been fully explored in Professor Barrow's sensitive pages<sup>91</sup> and need not be rehearsed here, save to discount the three different versions which he alleged of Alexander II's supposed recognition of Robert as his heir presumptive, an event which would have belonged to about 1238, had it ever happened. But it is possible that in 1248 he was acknowledged as the most likely heir should the male line of King William die out.

He left a remarkable reputation as a 'noble' man, the description of him by Walter of Guisborough, while in the chronicle of Lanercost he was 'a noble baron in both England

83. *Close Rolls, 1261-64*, 375; *Cal. Docs. Scot.* i. no. 2358; Anderson, *Scottish Annals*, 380, translating *Flores Historiarum*, ii, 488, 496.

84. *Cal. Patent Rolls, 1258-66*, 664; *Close Rolls Supplementary of Henry III* (1975), no. 380; *Cal. Docs. Scot.* i. nos. 2490, 2491.

85. *Cal. Patent Rolls, 1266-72*, 24, 218; *Cal. Docs. Scot.* i. no. 2528 and n.

86. *Statuta Ecclesie Scotice*, Introduction, p. lxxiii n.

87. *Close Rolls, 1268-72*, 432-33.

88. *Cal. Patent Rolls, 1266-72*, 479, 480, 465; *Chron. Lanercost*, 161; A. Macquarrie, *Scotland and the Crusades*, (1985), 58-59, and his article ante, lviii, 76-77.

89. *Cal. Docs. Scot.* ii. nos. 83, 197.

90. *PRO Lists and Indexes, IX. Lists of Sheriffs*, 26.

91. Barrow, *Robert Bruce*, chapters 1-4.

and Scotland', and much else besides - elegant in form, eloquent in speech, famed in his following and, if that were not enough, most devoted to God and churchmen. Fordun says that 'noble' was his by-name, but Fordun also described him as lord of Annandale and Cleveland, a description which would fit only Robert I.<sup>92</sup>

Robert was married twice, firstly in May 1240 to Isabel, daughter of Gilbert de Clare, earl of Gloucester and Hertford, who was born on 2 November 1226 and died after 1264, leaving two sons; and secondly before 1280,<sup>93</sup> as her third husband, to Christina, daughter of Sir William de Ireby of Cumberland, who died in 1305. The sons were (1) Robert VI below and (2) Richard, who had lands in Yorkshire and Northumberland and died leaving no issue in 1286.<sup>94</sup> Robert V was at Lochmaben with his grandson on 13 December 1294; he died there on 31 March 1295 (obit 2), and was buried on 17 April in Guisborough priory.<sup>95</sup>

**Robert VI** was presumably the son born to Robert V and his wife in 1243, perhaps at Writtle. His career is well treated in *SP* and *Complete Peerage*<sup>96</sup> under 'Carrick', and is only summarised here. After his birth, he is first mentioned in ransoming his father in 1264, speculated in forfeitures after the rebellion of 1264-65,<sup>97</sup> and achieved independence by his marriage between 1270 and 1273, to the widowed Marjory countess of Carrick, in circumstances graphically described by Fordun.<sup>98</sup> They did not have permission from Alexander III, who seized the earldom for a time. Robert accompanied Alexander to Westminster in 1278, when Edward I sought to have homage done for Scotland. In 1281, as Edward I's 'bachelor' he was short of cash at the English court.<sup>99</sup> Much in his father's shadow during the interregnum in Scotland, he passed on his earldom to his son in December 1292 or later, but returned to Scotland as lord of Annandale in 1295, when he tried to deny her terce to his step-mother. In 1296 he and his heir were in Edward I's army which invaded Scotland and procured the abdication of King John, after which they asked Edward for the Scottish throne - receiving a very dusty answer. Fordun claims that the 'Robert Bruce who became king' (not 'Carrick'), fought on the English side at Falkirk<sup>100</sup> but this is almost impossible; perhaps Robert VI was there. Afterwards he effectively withdrew to his Essex estates.

He was married firstly Marjory countess of Carrick, who probably died by 1292, and secondly Eleanor, who survived him and remarried, dying in 1330. His first wife bore him five sons and five daughters who survived to adulthood.<sup>101</sup> The Scottish resistance to Edward I collapsed in February 1304; Robert forthwith set out for Annandale, but died en route soon after Easter, 29 March, and before 4 April, on or about the anniversary of his father's death. He was buried at Holm Cultram abbey, Cumberland.<sup>102</sup>

92. *Chron. Guisborough*, 259; *Chron. Lanercost*, 159; *Chron. Fordun*, i. 304.

93. *Cal. Patent Rolls, 1272-81*, 362.

94. *Complete Peerage*, ii. 358-60; for Richard: *Cal. Patent Rolls, 1266-72*, 292-93; *Cal. Docs. Scot.* ii. nos 309, 312, 315.

95. *Melrose Liber*, ii. appendix no. 9; *Chron. Guisborough*, 259.

96. *Complete Peerage*, iii. 55-56.

97. *Cal. Patent Rolls, 1266-72*, 292-93.

98. *Chron. Fordun*, i. 304.

99. *Cal. Patent Rolls, 1272-81*, 456.

100. *Chron. Fordun*, i. 330.

101. Robert (King Robert I), Neil, Edward, Alexander and Thomas. The daughters were Isabel queen of Norway, an unnamed married to Gartnait earl of Mar, Christina, Mary, and Matilda. In addition King Robert I had a sister Margaret, never called 'Bruce', who, I suggested, was probably illegitimate; *RRS*, v. 64-65.

102. *Chron. Guisborough*, 363; *Cal. Docs. Scot.* ii. no. 1493.

### A Table of the important following of William III and Robert IV

Not all persons named in the documents are included in the table. It has not been possible to distinguish between two generations of the same name. Thus W4 is witnessed by both William de Herries and William de Herries junior, who has probably succeeded his father by the time of Robert IV. W1 shows Robert of Hoddom as more prominent than Udard, who was presumably his son; for that reason W1-W3 are the earliest in the sequence.

I have included Adam and Alan 'the Englishman' as they are probably identical with the Dunwoodies.

Adam s. Adam was not son of Adam Seton, Adam Carlisle, or Adam Dunwoodie; I have not identified his family.

Key to Table: + signifies that the person is named in the document, usually as a witness, b that he is the beneficiary of it; f signifies that the father of the named person attests A or B.

Name	A	B	W 1	W 2	W 3	W 4	W 5	W 6	W 7	W 8	W 9	R1	R2	R3	R4	R5	R6
Humphrey Jardine	+		+			+				+		+	+				
Hugh Corry			+			+	+			+		+	+	+	+	+	
William Herries	+		+			+	+	+	+	+		+	+		+	+	
Robert Crosby	f	f								+		+	+				+
Adam s. Adam			+				+										
Richard Bois	f		+	+		+	+			+		+	+	+	+	+	
Gilbert s. John			b				+					+	+				
Gilbert Johnstone										+					+		
Robert Tremor			+							+		+	+				
Roger Kirkpatrick			+			+				+		+			+		
Richard Humez												+		+		+	+
Hugh s. Hamelin		f										+		+		+	+
William Francis												+				+	
Robert Hoddom		+	+		+												
Udard Hoddom			+			+			+		+						
Henry Murdac		+	?+				+		+								
Hugh Maleverer			+			+	+	+									
William Heneville			+			+	+			+	b						
Adam Dunwoodie			+				+										
Adam <i>l'Engleis</i>						+											
Alan Dunwoodie										+							
Alan <i>Anglicus</i>														+			
Richard Fleming				+	+		+		+								
Adam Seton			+					+	+								
Roger Avenel	f											+		+			+
Laurence Berkeley															+	+	
Thomas the clerk												+		+			+
Hugh Brus		+	+		+												
William Brus												+		+			
John Brus												+		+			+

**Documents in Table**

- A. Robert de Brus son of Robert II grants Haltwhistle church to Arbroath abbey (1183 x 88). *Arbroath Liber*, i. no. 37.
- B. Robert de Brus II grants Elton (co. Durham) to William de Humez. (x 1184). *EYC*, ii. 4.
- W1. Resignation by Dunegal s. Udard in the court of William de Brus. *Cal. Docs. Scot.* i. no. 606.
- W2. William de Brus grants a saltpan to Melrose abbey before the grant confirmed in W3. (x 1200) *Melrose Liber*, ii. appendix no. 4.
- W3. William de Brus confirms a grant (datable x 1200) by Richard Fleming, his chamberlain, of a saltpan to Melrose abbey. *Melrose Liber*, ii. appendix no. 6.
- W4. William de Brus grants a fishing to Holm Cultram abbey. *Cal. Docs. Scot.* i. no. 607.
- W5. William de Brus grants land to Adam of Carlisle. Fraser, *Annandale Family Book*, i. no.2.
- W6. William de Brus grants land in Hartlepool to Durham priory. *Feodarium Prioratus Dunelmensis*, 138 n.
- W7. William de Brus confirms Annandale churches to Guisborough priory. *Guisb. Cart.* ii. no. 1176.
- W8. William de Brus grants land at Pennersaugh to Ivo de Kirkpatrick. Fraser, *Annandale Family Book*, i. no.3.
- W9. Agreement between William de Brus and William de Heneville. *Cal. Docs. Scot.* i. no. 605.
- R1. Resignation by William s. Ralph to Robert de Brus of land in Annan. *Cal. Docs. Scot.* i. no. 704.
- R2. Agreement between Robert de Brus and the earl of Dunbar, 11 Nov. 1218. *Cal. Docs. Scot.* i. no. 700.
- R3. Robert de Brus confirms and amplifies W7 above. *Guisb. Cart.* ii. no. 1178.
- R4. Robert de Brus grants land to Roger Crispin. Fraser, *Annandale Family Book*, i. no.7.
- R5. Robert de Brus grants land to Humphrey s. Simon. *Cal. Docs. Scot.* i. no. 607; *ante* lviii, 73.
- R6. Robert de Brus grants wheat to Finchale priory. *Charters...of Finchale*, 134, no. 144.

Two charters of William III and Robert IV to Melrose abbey are not included as they have no witnesses. *Melrose Liber*, ii. appendix nos. 3, 7. The latter does refer to Richard Fleming and Udard Hoddom.

### The Early Bruce Seals

Robert I's seal is on BL Cotton Ch. viii, 21, bearing a shield of arms displaying an eagle rising guardant contourné.<sup>103</sup> Robert II used first a seal (on which he is called *ivvenis*) bearing a fleur de lys with a dot on either side of the stem, and with a *secretum* of 'a pretty floriated cruciform device'.<sup>104</sup> Towards the end of his long life he had a seal with a fleur de lys and a bird or birds on the lower stem or stems pecking at seeds.<sup>105</sup> His nephew Adam of Skelton used a lion rampant, and this seems to have been adopted by William de Brus III, whose seal at Durham has 'a lion walking',<sup>106</sup> a description confirmed by lost seals showing 'a lion passant gardant to the sinister'.<sup>107</sup> However, Sir William Fraser in a footnote to one of William's charters preserved at Drumlanrig states that 'part of the seal is still appended. On a shield a saltire and a chief - the charge on the latter defaced. Legend '[S] Wilelmi D Br[us]'.<sup>108</sup> (A chief is the top third or half of the shield). Robert IV certainly bore this charge, with a lion (possibly crowned) passant to the dexter in chief, displaying it both on his main seal and on his *secretum*.<sup>109</sup> Robert V had a number of seals all showing a saltire and chief - that is without the lion; but his son, Robert VI reintroduced saltire and lion passant gardant in chief, perhaps because the main line at Skelton had died out.<sup>110</sup>

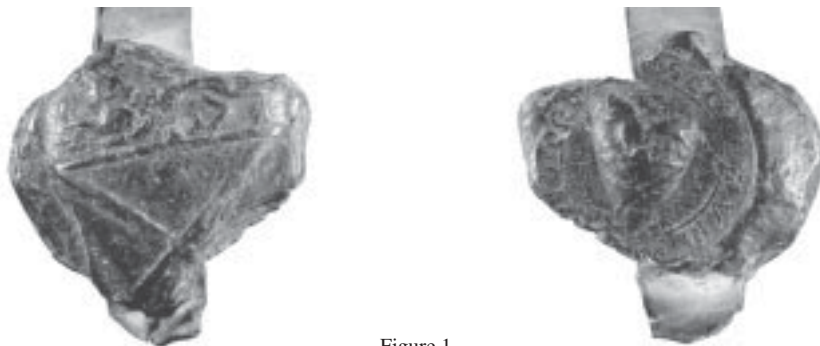


Figure 1

Seal of Robert de Brus IV – shown actual size.

Left obverse, right counterseal.

Legend on counterseal: +SECRECVM R[OBER]CI DE B[RVS]

By courtesy of his grace the Duke of Buccleuch, to whom the Society's thanks are due for permission to reproduce this seal from Drumlanrig muniments, bundle 1323.

The vagaries of the twelfth century arms of the Annandale branch are striking; if the lion came from the senior, Skelton, branch, it would be valuable to know whence came the saltire, whose early use in Scotland dates otherwise from St Andrews in the first half of the thirteenth century. Perhaps it came to William from his mother, Eufemia of the family of the earls of Aumale, but I have not traced the arms of that family.

103. J.H. Stevenson and M. Wood, *Scottish Heraldic Seals*, ii. no. 578 ; attached to *EYC*, ii. no. 650 (x 1142).

104. *Durham Seals* (*Archaeologia Aeliana* 3rd ser. vii (1911)), no. 445; attached to *EYC*, ii. no. 649 of 1142 x 52. This seal was probably made when his father was alive.

105. *Durham Seals*, no. 444, attached to *Feodarium Prioratus Dunelmensis*, 138 n (one bird). Brown, in *YAJ*, xiii. 251 claims that it has two birds, one sitting on each of the two lower leaves about to pick at the seeds.

106. *Durham Seals*, no. 446, attached to *Feodarium Prioratus Dunelmensis*, 138 n.

107. *Guisb. Cart.* ii. 324 n, 325 n, 341 n.

108. W. Fraser, *Annandale Family Book*, i. 2 n.

109. *Durham Seals*, no. 443, fuzzy photo on pl. IX; Fraser, *Annandale Family Book*, i. back of facsimile facing p. xiv of the Introduction (where the crown is shown with great clarity - but perhaps the eye of faith was deceived by prominent ears!); W.R. Macdonald, *Scottish Armorial Seals* (1904), nos. 268, 269; Stevenson and Wood, *Scottish Heraldic Seals*, ii. nos. 584, 585.

110. For these later seals see Macdonald, *Scottish Armorial Seals*, nos. 270-78; Stevenson and Wood, *Scottish Heraldic Seals*, ii. nos. 586-95.

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## RULES

As revised and adopted at the Annual General Meeting held on 13th October 1995

### NAME OF THE SOCIETY

1. The Society shall be called "The Dumfriesshire and Galloway Natural History and Antiquarian Society."

### AIMS

2. The objects of the Society shall be to collect and publish the best information on the natural sciences and antiquities (including history, records, genealogy, customs and heraldry) of the three counties of Dumfries, Kirkcudbright and Wigtown; to procure the preservation of objects of natural science and antiquities relative to the district; to encourage local research and field activities in natural science and excavations by private individuals or public bodies and afford them suggestions and co-operation; to prevent as far as possible, any injury to ancient monuments and records, etc.; and to collect photographs, drawings and descriptions and transcripts of the same.

### MEMBERSHIP

3. The Society shall consist of Life Members, Honorary Members, Ordinary Members and Junior Members.

### LIFE MEMBERS

4. Life Membership shall be gained by a composition fee of such sum as may be agreed on from time to time by the Annual General Meeting or a Special Meeting, which shall entitle the Life Member to all the privileges of the Society.

### HONORARY MEMBERS

5. Honorary Members shall not exceed twenty in number. They shall be entitled to all the privileges of the Society, without subscriptions, but shall be elected or re-elected annually at the Annual General Meeting. Honorary Membership shall, as far as possible, be reserved (a) for those who have aided the Society locally, or (b) for those of recognised attainments in natural history, archaeology, or kindred subjects.

### ORDINARY AND JUNIOR MEMBERS,

#### ANNUAL SUBSCRIPTIONS,

#### PRIVILEGES OF MEMBERS

6. Persons desirous of becoming members should apply to the Honorary Membership Secretary who

shall have power to admit such persons as Members. They shall contribute annually on the 1st October or within three months thereafter such sum as may be agreed upon from time to time by the Annual General Meeting, or a Special Meeting. All Ordinary Members shall be entitled to attend the Meetings of the Society and shall receive gratis a copy of the Transactions of the Society on issue.

When more than one person from the same family and residing in the same house joins the Society, all after the first may pay half the subscription rate or such sum as may be agreed upon from time to time by the Annual General Meeting or a Special Meeting, and shall enjoy the privileges of the Society except that they shall not receive gratis a copy of the Transactions.

Junior members are those who have not attained the age of eighteen. They may join the Society in the same way as Ordinary Members, but shall pay an annual subscription of such sum as may be agreed upon from time to time. Junior Members shall be entitled to all the privileges of membership, except that they shall have no vote nor shall they receive gratis a copy of the Transactions. Junior Members shall be liable for the Ordinary Membership subscription on the first day of October following their eighteenth birthday, or within three months thereafter.

Subscriptions from newly joined Members are due on their joining the Society.

### OVERDUE SUBSCRIPTIONS

7. Members whose subscriptions are in arrears shall not receive the *Transactions*. If in arrears for fifteen months and having received due notice from the Treasurer, they shall cease *ipso facto* to be Members of the Society.

### VISITORS

8. A Member may introduce a friend to any Ordinary Meeting of the Society.

### OFFICE-BEARERS, COUNCIL ELECTION

9. The business of the Society shall be conducted by a Council composed of a President, Past Presidents, four Vice-Presidents, Secretary, Treasurer, and twelve Ordinary Members, together with Membership Secretary, Librarians, Curators and Editors. They shall be elected at the Annual General Meeting and shall be eligible for re-election with the following provisos:

The President shall not occupy the Chair for more than three years consecutively and shall not be eligible for re-election until the expiry of one year.

Each year one Vice-President and three Ordinary Members shall retire and shall not be eligible for re-election until the expiry of one year. In deciding who shall be ineligible for re-election, the Council shall take into account length of service and attendance at the Council Meetings, but if vacancies occur owing to voluntary retirement or death, these vacancies shall reduce the retiring quota.

The Council shall have power to fill casual vacancies, including that of the Independent Examiner of the accounts, occurring during the year. Any person thus appointed shall be subject to the same conditions as those applicable to the person whom he replaces.

#### QUORUM

Five Members shall form a quorum at a Council Meeting.

#### FELLOWS

10. On retiring, Presidents shall become Fellows of the Society. This honour may also be conferred upon Members of the Society who have done outstanding scientific work for the Society. Such individuals shall be proposed by the Council for election at an Annual General Meeting. A Fellow shall be eligible for any office for which he is qualified.

#### COMMITTEES

11. The Council may appoint Committees for any specific purpose, and with such powers as may seem warranted by the occasion; any such Committee to be composed of not less than three Members of the Society, exclusive of the President and the Secretary, who shall be ex officio members of all Committees. Every Committee shall have the power to co-opt.

#### SECRETARY'S DUTIES

12. The Secretary shall keep a Minute Book of the Society's Proceedings, shall conduct the ordinary correspondence of the Society and shall submit a report on the previous year's activities at the Annual General Meeting. The Secretary shall call all Meetings.

#### EDITOR

13. The Council shall appoint one or more Members of the Society as Editors of the *Transactions* who shall be ex officio Members of the Council.

#### TREASURER'S DUTIES

14. The Treasurer shall collect the subscriptions, take charge of the funds, and make payments therefrom under the direction of the Council, to whom the Treasurer shall present an Annual Account made up to 31st March, to be approved by an Independent Examiner for submission at the Annual General Meeting.

The Treasurer shall arrange such insurance cover of the Society's property, and for its potential liability to Members or to third parties as the Council may from time to time direct. The Council need only instruct such insurance cover, and, if instructed, for such amounts, as they in their sole discretion think fit.

#### INVESTED FUNDS

15. The invested funds of the Society shall be in the name of the President, Secretary and Treasurer, for the time being, conjointly or held by the Nominee Company of the Society's Bank to the order of the said three Office-Bearers. Life membership fees are to be regarded as capital, and are to be invested at the discretion of the above-named three Office-Bearers in any stocks known as Trustee Securities, or in a Bank Deposit.

#### MEETINGS

16. The Meetings of the Society shall be held, as arranged by the Council, and at such Meetings papers may be read and discussed, objects of interest exhibited, and other business transacted.

#### FIELD MEETINGS

17. The Field Meetings shall be held as arranged by the Council, to visit and examine places of interest, and otherwise carry out the aims of the Society.

#### ANNUAL GENERAL MEETING

18. The Annual General Meeting, of which not less than fourteen days' notice shall be given, shall be held in October, and at this meeting the Office-Bearers, Members of Council, and an Independent Examiner of the accounts shall be elected. Fifteen Members shall form a quorum.

Reports (general and financial) shall be submitted and any other competent business transacted. Office-Bearers and Members of Council shall be nominated by the outgoing Council, but it shall be competent for any two Members to make alternative or additional nominations, provided that they are in the hands of the Secretary, together with the consent in writing of the nominee(s), at least seven clear days before the meeting. A ballot shall be held if necessary.

## SPECIAL MEETINGS

19. The Secretary or the President shall at any time call a Special Meeting of the Society on receiving instructions of the Council, or a requisition signed by six Members. Every Member of the Society must be informed of any such Special Meeting, of which not less than seven days' notice must be given. Fifteen Members shall form a quorum.

TRANSACTIONAL RIGHT  
TO PUBLISH PAPERS

20. The Council shall have the right to publish in the *Transactions* or otherwise, the whole, or part, or a résumé of, any paper read by any member or person at a meeting of the Society, and the Council shall decide what illustrations, plates, or diagrams shall be reproduced with any such papers.

## SEPARATE COPIES OF PAPERS

21. Contributors of papers to the Society shall be entitled, if such papers be published in the *Transactions* to receive ten copies gratis of such papers as "separates" in pamphlet form.

## LOANS

22. The Society is prepared to accept articles of in-

terest for exhibition on loan, but they will not be responsible for their damage or loss by fire, theft, or any other cause. It is desirable that parties lending articles should state the value put upon them, that the Society (in their discretion) may insure the articles for a similar amount. The Council shall have the power to terminate or to refuse, the loan of such articles as they may from time to time see fit.

## RULES

23. These Rules cancel all other Rules previously passed. They shall be printed in pamphlet form and a copy shall be supplied to every member and to every new member on his joining. They shall take effect from the date of the Meeting at which they were adopted.

## ALTERATION OF RULES

24. Alterations of these Rules or the addition of any new Rule shall be made only with the consent of three fourths of the Members, present and voting at an Annual General Meeting, or at a Special Meeting, notice of such proposed alteration or addition having been given in writing to the Secretary not less than eight weeks previous to such Meeting. The Secretary shall intimate to all Members resident in the British Isles that a change in the Rules is proposed.



**Eric Birley** MBE, FSA, FBA,Dr Phil. (Freiburg), D Litt (Leicester), Dr *hon. causa* (Heidelberg)

The death occurred on 20th October 1995, in his 90th year, of Professor Eric Birley, one of our Society's most distinguished members for nearly 60 years. At the age of 21, when an undergraduate at Oxford, he took part in an excavation on Hadrian's Wall and from then on he devoted his abilities to elucidating its problems and the wider aspects of Roman Archaeology – in particular, pottery as a chronological indicator, epigraphy and the Roman Army. His expertise in assembling an Order of Battle of the Roman Army – units, their strength, readiness, and location throughout the Roman Empire – from small clues, resulted in his being selected for Military Intelligence in World War II where he applied the same methods to similar work on the German Army. When enemy records fell into Allied hands in 1945 and it was found that his deductions had been substantially correct a gratifying credibility was given to his earlier Roman work in this field. He was appointed an MBE in 1943.

Birrens, as an outpost of Hadrian's Wall, had brought him to work in Dumfriesshire in 1936. He became a Life Member of this Society the following year and was elected a Fellow in 1979. This writer, as a schoolboy, well remembers his very first visit to an excavation of any kind when he attended the Society's Field Meeting on 8th August 1936 which is recorded (*Trans* vol XX p 142) as 'At Birrens Roman Station the company, under the guidance of Mr. Eric Birley, viewed the excavations which had been made under his instructions and he gave a clear exposition of the results. These had proved that the camp had a much more extended period of occupancy than the former excavations, 40 years before, had shown...' In the ensuing years he contributed 11 important papers to the *Transactions*, as below, illustrative of his excellent publication record which involved not only national and international journals, but those of local societies such as ours and our sister society in Cumberland and Westmorland, of which latter he was president from 1957 to 1960 and of whose *Transactions* he was editor from 1948 to 1957. He continued publishing up to 1993.

These few lines regrettably include an all too brief summary of the important work of this scholar and are moreover confined to his work in this society's area. Full and more deserving tributes, by a colleague of his in his chosen field, are to appear in the *Proceedings of the Society of Antiquaries of Scotland* and in *Britannia*, but it cannot be over stressed here how much of the tremendous increase in our knowledge of the Romans in Dumfries and Galloway, in the century since James Barbour excavated at Birrens, has been due to the enthusiasm, skill and expertise of Eric Birley.

W.F.C.

- Papers by Eric Birley published in the *Transactions* (all 3rd series)  
 Excavations at Birrens, XX 157 and XXI 335  
 The Roman Fort at Carzield, (with I. A. Richmond) XXII 156  
 The Pottery from the Roman Fort at Carzield, (with J.P. Gillam) XXIV 68  
 Dumfriesshire in Roman times, XXV 132  
 The Brigantian Problem and the first Roman contact with Scotland, XXIX 46  
 Maponus, the epigraphic evidence, XXXI 39  
 Some military aspects of Roman Scotland, XXXI 9  
 Dalswinton and the *Ala Petriana*, XXXV 9  
 Sir John Clerk's journey to Penrith, 1731, (with W. A. Prevost) XXXVIII 128  
 Thomas Pennant and the Hoddam Castle collection, XXXVIII 140

## Proceedings 1993 - 1994

**8th October 1993**

Annual General Meeting

Speaker: Prof. D. McIntyre - 'Children of Stardust: the Origin and Evolution of the Earth'.

**22nd October**

Speaker: Dr. E. Proudfoot - 'Fourteen Stitches to the Inch: - Aspects of the Early Bronze Age in Scotland'.

**5th November**

Speaker: Mr. A. E. Truckell - 'Down South'.

**19th November:**

Speakers: M. and K. Walker - 'Primates and Conservation in West Africa'.

**3rd December:**

Speaker: Mr. D. Mitchell - 'Under the Mountain Wall: A Walk with the Dani Tribesmen of the Irian Jaya'.

**7th January 1994**

Speaker: Mr. W. Hean - 'The History of Scottish Gardens'.

**21st January**

Members' Night

Speakers: Mr Ken Bruce - 'Cannon Netting of Wading Birds on the Solway Shore'.

Mrs. Jane Brann - 'Update on Archaeology in Dumfries and Galloway'.

Dr. D. Devereux - 'Recent Accessions to the Stewartry Museum'.

Video film: from the *Interessengemeinschaft für Heimatgeschichte*, Pilsting - 'A reconstructed Roman Farm and Housebuilding'.

**4th February**

Speaker: Mr. A. Pollard - 'More than just Flints: a Mesolithic Site at Kirkhill and its Implications'.

**18th February**

Speaker: Dr. D. J. Gobbett - 'Aspects of Malayan Natural History'.

**4th March**

Special General Meeting

Speaker: Mr. G. Shaw - 'Pine Martins in Galloway'.

**19th March**

Speaker: Prof. J. McQueen - 'The Mythical Prehistory of Scotland'.

This Meeting was held in Kirkcudbright.

## **Publications funded by the Ann Hill Research Bequest**

### **The History and Archaeology of Kirkpatrick-Fleming Parish**

- No. 1 Ann Hill and her Family. A Memorial, by D.Adamson.
- No. 2\* Kirkpatrick-Fleming Poorhouse, by D.Adamson.
- No. 3\* Kirkpatrick-Fleming Miscellany  
    Mossknow Game Register 1875.  
    Diary of J.Gordon Graham 1854.  
    edited by D.Adamson and I.S.MacDonald.
- No. 4\* Middlebie Presbytery Records, by D.Adamson.
- No. 5\* Kirkpatrick-Fleming Miscellany  
    How Sir Patrick Maxwell worsted the Devil.  
    Fergus Graham of Mossknow and the Murder at Kirkpatrick.  
    both by W.F.Cormack.
- (No. 6) Kirkpatrick Fleming Dumfriesshire – An Anatomy of a Parish in South-West Scotland  
    by Roger Mercer and others (in preparation).

Nos. 1 to 5 are crown quarto in size with a 2 colour titled card cover.

Publications marked \* are reprinted from the Transactions.

### **The Records of Kirkpatrick-Fleming Parish**

- No. 1 Old Parish Registers of Kirkpatrick-Fleming, 1748-1854. Indexed and in 5 parts.
- No. 2 Kirkpatrick-Fleming Census 1851.
- No. 3 Kirkpatrick-Fleming Census 1861.
- No. 4 Kirkpatrick-Fleming Census 1871.
- No. 5 Kirkpatrick-Fleming Census 1841.
- No. 6 Kirkpatrick-Fleming Census 1881.
- No. 7 Kirkpatrick-Fleming Census 1891.

The Record series is duplicated in A4 size with a titled card cover.

For prices of both series and current availability of records apply to  
Mr R.H.McEwan, 13 Douglas Terrace, Lockerbie DG11 2DZ.

## Publications of the Society

**Transactions and Journal of Proceedings: 1st Series** - (a) 1862-3\*, (b) 1863-4\*, (c) 1864-5\*, (d) 1865-6\*, (e) 1866-7\*, (f) 1867-8\*. **New or 2nd Series** - (1) 1876-8\*, (2) 1878-80\*, (3) 1880-3\*, (4) 1883-6\*, (5) 1886-7\*, (6) 1887-90\*, (7) 1890-1\*, (8) 1891-92\*, (9) 1892-3\*, (10) 1893-4\*, (11) 1894-5\*, (12) 1895-6\*, (13) 1896-7\*, (14) 1897-8\*, (15) 1898-9\*, (16) 1899-1900\*, (17) 1900-5 (in 4 parts)\*, (18) 1905-6\*, (19) 1906-7, (20) 1907-8\*, (21) 1908-9, (22) 1909-10, (23) 1910-1\*, (24) 1911-2\*. **3rd Series** - (i) 1912-3\*, (ii) 1913-4\*, (iii) 1914-5\*, (iv) 1915-16\*, (v) 1916-8\*, (vi) 1918-9\*, (vii) 1919-20\*, (viii) 1920-1\*, (ix) 1921-2\*, (x) 1922-3\*, (xi) 1923-4\*, (xii) 1924-5\*, (xiii) 1925-6\*, (xiv) 1926-28\*, (xv) 1928-9\*, (xvi) 1929-30\*, (xvii) 1930-1, (xviii) 1931-3\*, (xix) 1933-5\*, (xx) 1935-6\*, (xxi) 1936-8\*, (xxii) 1938-40\*, (xxiii) 1940-4\*, (xxiv) 1945-6\*, (xxv) 1946-7\*, (xxvi) 1947-8\*, (xxvii) 1948-9\* (Whithorn Vol. I), (xxviii) 1949-50\*, (xxix) 1950-1\* (with Index of Vols. i to xxvii), (xxx) 1951-2\*, (xxxi) 1952-3\* (Hoddum Vol. I), (xxxii) 1953-4, (xxxiii) 1954-5, (xxxiv) 1955-6\* (Whithorn Vol. II), (xxxv) 1956-7\*, (xxxvi) 1957-8, (xxxvii) 1958-9, (xxxviii) 1959-60, (xxxix) 1960-1\* (with Index of Vols. xxvii to xxxviii), (xl) 1961-2 (Centenary Vol.)\*, (xli) 1962-3, (xlii) 1965 (new format), (xliii) 1966, (xliv) 1967, (xlv) 1968, (xlvi) 1969, (xlvii) 1970, (xlviii) 1971, (xlix) 1972 (with Index of Vols. xxxix to xlviii), (l) 1973, (li) 1975, (lii) 1976-7, (liii) 1977-8, (liv) 1979 (Wanlockhead Vol.), (lv) 1980, (lvi) 1981, (lvii) 1982, (lviii) 1983, (lix) 1984 (with Index to Vols. xlix to lviii), (lx) 1985, (lxi) 1986, (lxii) 1987, (lxiii) 1988, (lxiv) 1989, (lxv) 1990 (Flora of Kirkcudbright Vol.), (lxvi) 1991 (Hoddum Vol. II), (lxvii) 1992, (lxviii) 1993, (lxvix) 1994 (Birrens Centenary Vol. with Index of Vols, lix to lxviii).

**Prices: Single Volumes** (to Members) - Current Vol. £6, previous Vols. £4. All plus post. & packing.  
**Single Volumes** (to non-Members) - £6 for one; £5 for 2nd; £4 for 3+, all plus post. & packing.  
**Runs of Volumes** - on application to the Hon. Librarian.

**A List of the Flowering Plants of Dumfriesshire and Kirkcudbrightshire**, by James McAndrew, 1882.\*  
**Birrens and its Antiquities**, by Dr J.Macdonald and James Barbour, 1897.\*  
**Communion Tokens, with a Catalogue of those of Dumfriesshire**, by Rev. H.A.Whitelaw, 1911.\*  
**History of Dumfries Post Office**, by J.M.Corry, 1912.\*  
**History of the Society**, by H.S.Gladstone, 1913.\*  
**The Ruthwell Cross**, by W.G.Collingwood, 1917.\*  
**Records of the Western Marches, Vol. I**, "Edgar's History of Dumfries, 1746", with illustrations and ten pedigree charts, edited by R.C.Reid, 1916\*.  
**Records of the Western Marches, Vol II**, "The Bell Family in Dumfriesshire", by James Steuart, W.S., 1932.\*  
**Records of the Western Marches, Vol III**, "The Upper Nithsdale Coalworks from Pictish Times to 1925", by J.C.McConnel, 1962, £2.00 plus postage.  
**Notes on the Birds of Dumfriesshire**, by H.S.Gladstone, 1923\*  
**A Bibliography of the Parish of Annan**, by Frank Millar, F.S.A.Scot, 1925\*  
**Thomas Watling, Limner of Dumfries**, by H.S.Gladstone, 1938\*  
**Index to Transaction, Series 1 and 2** £2.00 plus postage and packing.  
**The Marine Fauna and Flora of the Solway Firth Area**, by Dr E.J.Perkins, 1972, 112pp. £2.00 plus postage and packing. **Corrigenda**. Free on receipt of s.a.e.  
**Birrens (*Blatulgiun*)**, by Prof. A.S.Robertson, 1975, 292pp, 88 figs., 12 pls. £5.50 plus £2.50 post and packing to members; £7.70 to non-Members plus post and packing.  
**Cruggleton Castle. Report of Excavations 1978-1981** by Gordon Ewart, 1985, 72pp 33 figs. £3.50 plus £2 post and packing to members. £4.50 to non-Members plus post and packing.

\* Indicates out of print, but see Editorial.

**Reprints** "The Early Crosses of Galloway" by W.G.Collingwood from Vol. x (1922-3), 37pp text, 49 crosses illustrated and discussed, £1.00 plus post to Members.  
"Flowering Plants etc. of Kirkcudbrightshire" by Olga Stewart, from vol. lxxv (1990), 68pp, Price on application to Hon. Librarian.

Publications in print may be obtained from the Hon. Librarian, Mr R.Coleman, 4 Lover's Walk, Dumfries DG1 1LP