The counties of Nairnshire, Moray and Banffshire in the Bronze Age, Part II*

by Iain C Walker

INTRODUCTION

In dealing with the bronzes from these three counties the traditional terms of Early, Middle, and Late Bronze Age have been used, though adapted to the prehistory of the area as outlined in this paper. Briefly, the EBA spans the period between the introduction of bronze and the end of trade connections between the area and Ireland and Scandinavia; the LBA is marked by the reappearance of contacts via the Great Glen with Ireland; and the MBA is the intervening period.

Metallurgical analyses for Scottish Bronze Age material are in progress and their results, when integrated with the European evidence, may necessitate a major reappraisal of the origins of our metallurgy. However, pending the availability of this evidence, this study does not consider the ore groups found by recent analyses.²

BACKGROUND

Hawkes,³ elaborating on the work of Coghlan and Case,⁴ has suggested that 'Classic' bell beaker folk from the Middle Rhine, arriving in S Ireland and mixing there with the settlers who had introduced the megalithic wedge-shaped tombs from France, were those who initially introduced a copper-using economy. Bronze came with the arrival in Ireland of battle-axe people from the Elbe region who would have known of the rich copper and tin deposits in the Upper Elbe and Saale valleys. Thus, Hawkes argues, bronze working reached Ireland before the rest of Western Europe or the Upper Danube area.

It is only fair to note, however, that Coghlan and Case did not reject outright the other traditional source of metallurgical knowledge, Iberia: the earliest Irish axes are thick-butted, a form rare in Central Europe⁵ but typical of Iberian axes. Two axes of possible Irish-type (Group

* As in the previous part of this study (PSAS, XCVIII (1964-6), 76-125) the heading 'Find Spot' in the catalogue lists place, parish, and county when known. The same sequence is used for each hoard described in the catalogue. Place names are spelt following the latest 1-inch OS maps.

I should like to record my thanks to Dr Coles, Miss Henshall and Mr Davidson for their assistance.

The following abbreviations, other than those in common use and those listed in the first part of this study, have been used:

C Coles MH Megaw and Hardy
J Junghans OR Ó Ríordáin

Arch J Archaeological Journal

BRGK Bericht der romisch-germanischen Kommission

JCHAS Journal of the Cork Historical and Archaeological Society

TDGNHAS Transactions of the Dumfriesshire and Galloway Natural History Society
TNALSS Transactions of the Northern Association of Literary and Scientific Societies

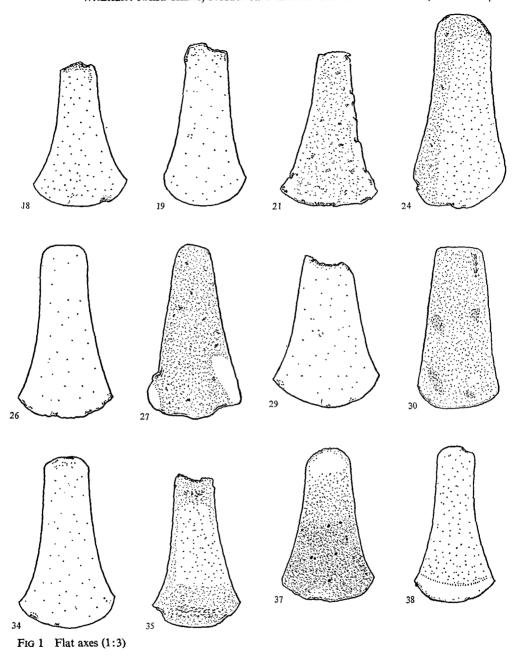
E 11) ores were found in the later level at Vila Nova de São Pedro, (that is, Beaker or later in date)⁶ and Irish type basket-shaped gold earrings came from a rock-cut tomb at Ermageira.⁷ Further, the motifs on Irish decorated flat axes are included in Iberian passage-grave motifs.⁸ However, the non-participation of Iberia in the trade of these axes and the application of these and other motifs to local axe types resulting in a distribution of decorated axes in Britain, N France, S Scandinavia, and the North European Plain^{9, 10} show that by that time at least there were no longer contacts between Ireland and Iberia. The writer has suggested¹¹ that settlers from Iberia bringing with them the passage-grave burial tradition also brought the knowledge of copper, but that this settlement, being a refugee movement, was impoverished and as a result a metal industry was not set up. Further, the settlers of the 'Colonial' period in Iberia did not spread their metallurgical knowledge greatly, for the Beaker folk who followed and apparently destroyed them as an entity had an inferior technology, using open moulds instead of closed ones.¹² Thus the refugees in Ireland may have been disinclined to pass on their knowledge even had they been able to obtain their raw material.

That Ireland was the early centre of metallurgy from whence the rest of Britain derived its initial knowledge seems certain; further, its richness in copper ore suggests that it may have continued to supply much of the raw material. Tin, on the other hand, occurs in Britain only in Cornwall; Scotland, however, could have imported it from Central Europe.¹³ Elaborate supply routes must certainly have been used in the area under consideration, for the number of EBA moulds found in NE Scotland indicates the existence of a major industry; and while there are copper deposits at either extreme of this area – Bona on the W side of Loch Ness and in the Edzell area of Angus¹⁴ – it may be doubted, assuming that they were indeed used, that these were extensive enough to satisfy the needs of this industry.

THE EARLY BRONZE AGE

The problem of who introduced metallurgy to the area is still uncertain: the Clava cairn builders cannot be considered as having done so. 15 and if one has to look for people represented by pottery the users of Irish bowl food vessels, as Childe suggested in 1935,16 seem the only obvious contenders, for the Dutch beaker folk who settled in NE Scotland seem certainly to have been neolithic in economy and either to have lost the knowledge of metallurgy they had had in Iberia and Central Europe or to have been unable to organise trade effectively enough to start a metal industry in a region which lacked the necessary raw materials.¹⁷ It has to be emphasised that the relatively sudden spread of bronze technology in Western and Central Europe must have been caused by more than the actual knowledge of metal ores and their working: the colonists in Iberia and the presumably Anatolian-inspired copper industry in E Europe do not appear to have been directly responsible for this spread of metallurgy, and while the sudden beaker movements over Western and Central Europe seem connected with a search for ores and the spread of knowledge of copper metallurgy, these people also spread to ore-less regions, the Low Countries, for example, and settled there. The Bronze Age - a useful if obsolescent term - is an age of trade and exploration, and for these reasons, and perhaps not wholly for ore prospecting, these early Europeans apparently felt impelled to traverse their continent. The wanderlust of the megalithic missionaries, on the other hand, apparently kindled no similar desire in the previous millennium.

The distribution of EBA moulds reveals 13 from Scotland, 18 all from the area between Easter Ross and Aberdeenshire save one from near Fort William. The first 12 have matrices for producing axes, and in some cases others for producing bars and rings as well; that from



Fort William is the only one solely for producing rings. It therefore seems legitimate to talk of a Moray Firth-Buchan industry, and to suggest that it may have traded its products over a considerable area.¹⁹ In the three counties under consideration alone, 53 provenanced flat axes and five flat axe moulds are known, nearly all of them confined to the fertile Laich of Moray. Scott suggested that the NE saw the early production of metal types because it was the only major source of flint and a specialist industry was already in existence.²⁰ Only two of the axes

mentioned above are of copper and both are of the broad-butted Irish type, and typologically early at that (Appendix I, nos 30 and 31); the others all appear to be of bronze and have in varying degrees narrow butts and developed blades.²¹ It thus follows that the Moray Firth-Buchan industry did not evolve in that area, but was introduced in a full bronze-using form from elsewhere.

If, as Hawkes suggested, bronze-working arrived in Ireland with Battle-Axe people from the Elbe region, their route could have been across the North Sea to NE Scotland, a route which in reverse was shortly to be travelled by those who traded decorated flat axes from Ireland and/or NE Scotland to the Continent. Piggott has suggested affinities between the cists with grooved side-slabs and internal decoration centred largely at the S end of the Great Glen and Late Neolithic and EBA cists of Corded Ware and allied cultures in the Saale Valley.²² Perhaps the long, boat-shaped cist discovered at Bishopmill, Elgin, containing a blade fragment (Appendix II, no. A) could belong to this influence or at least to a connection with Denmark in the middle of the second millennium BC.23 The major beaker settlement of NE Scotland from the Low Countries and the Rhineland c 2000 BC²⁴ suggests crossing the North Sea to N Britain was a known route. If we assume Ireland obtained her knowledge of bronze by this route, however, then the use of tin, the finding of its ores, and the trading of bronze axes must have commenced immediately, for Irish bronzes occur back in Central Europe - e.g. in the Dieskau hoard - while the Saxo-Thuringian industry is still apparently basically a copper industry^{25, 26}; and in S Scandinavia and even in N Germany presumably before these areas began receiving objects from their more natural supply sources in Central Europe in numbers enough to kill the Irish trade. This might suggest that the Irish copper industry was already in full production and able to effect the changeover to bronze, but it still leaves two questions unanswered: why, if the knowledge of bronze came from Central Europe, did the Irish apparently succeed initially in taking coals to Newcastle; and from where did the Irish get their initial flourishing copper industry?

There is now increasing opinion that halberds, which Ó Ríordáin maintained were an Irish invention traded to Central Europe,²⁷ are a Central European export to Ireland, from where they were subsequently exported back to Central Europe.²⁸ This again indicates that the Irish were able to take coals to Newcastle successfully. The most obvious reason for their success would appear to be that they had mastered immediately the optimum proportion of tin to add to make bronze.

There are high tin proportions in the Central European Prunkbeile, which are imitations of the imported Irish axes, while the Saxo-Thuringian axes of this period are of arsenical copper. When tin was used by the Saxo-Thuringian smiths it appears to have been in the manufacture of non-utilitarian objects such as ceremonial halberds, and rings.²⁹ On the other hand, many British halberds, including five of the seven provenanced surviving halberds from the three counties (one from Muir of Sluie, Moray, the others from Auchingoul, Banffshire), are of copper. If we assume that the Saxo-Thuringian smiths added tin to their non-utilitarian objects because they did not realise its properties and regarded it only as something to enable them to save their 'better' copper for more important objects, but that the Irish smiths discovered the metallurgical importance of tin and thus did not use it in their non-utilitarian objects such as halberds,³⁰ then we may have an explanation of the early Irish success in trading their bronzes as far afield as Central Europe.

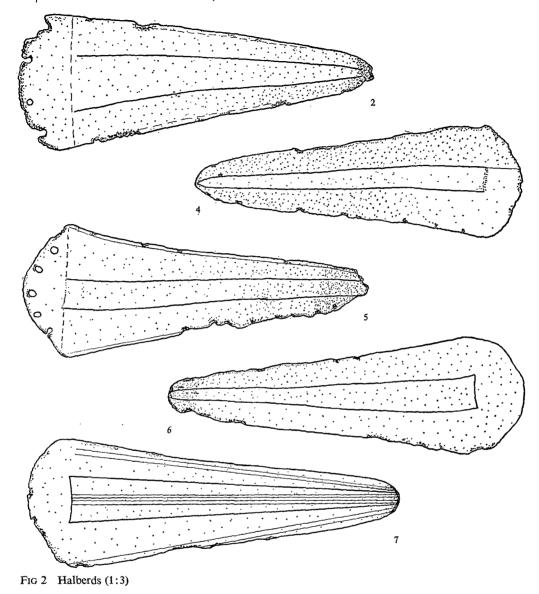
However, the problem of halberds is far from settled: if there are good grounds for questioning both Ó Ríordáin's Hibernocentric interpretation and his typology there has still not been a formal re-appraisal of these objects. Butler has dealt with the subject,³¹ but while Ó Ríordáin's type 4 is the only one of his types to occur both in Ireland and on the Continent

(aside from one or two examples of types 5 and 6) the distribution of this type in Britain and the Continent³² does not emphasise the Great Glen route as did the distribution of decorated flat axes – indeed, the New Macher hoard in Aberdeenshire, which might be a founder's hoard rather than a merchant's, has the only type 4 halberds in the E coast of Scotland N of Fife. All six surviving halberds from the three counties (Appendix II) are of Ó Ríordáin's type 6,³³ and types 4 and 6 may have been at least partly contemporaneous.³⁴ Metallurgical analyses may assist in re-arranging halberds, for types 2 and 4 appear to be frequently of the same possibly Central European metal (Group B2) and are thus perhaps contemporaneous, while type 5 is not.³⁵ Whatever the outcome of the metallurgical analyses the Muir of Sluie hoard suggests a general contemporaneity between flat axes and halberds, and it is difficult to divorce the appearance of the halberds in Scandinavia from the appearance of decorated axes there.

Megaw and Hardy³⁶ divided their decorated axes into three main typological classes. Type I covers examples from the simplest form to those with broad expanded blade and sides with a concave sweep to the butt: there are no definite stop-ridges nor flanges, though the former are occasionally hinted at by a swelling in the section and the latter are sometimes present as hammered flanges. Type II has in general straighter sides and low, probably cast, flanges; while type III has often parallel sides and well-developed cast flanges with a pronounced crescentic blade and frequently a stop-ridge. Type I axes are normally 4-6 in in length, type III mainly between 6 and 12 in. However, in broad terms, there are only two distinct classes – the earlier, basically flat, axes (types I and II), and the later flanged and stop-ridged axes (type III); the distribution pattern of these two classes offers a possible key to the chronology of the EBA of NE Scotland.

Two quite separate areas which received trading contacts from makers of decorated axes can be distinguished: a northern province (S Scandinavia, the Elbe basin, the Netherlands and probably the Pas-de-Calais) and a western one (the Loire and Seine valleys in France). In the former area, 28 examples were known to Megaw and Hardy; in the latter, 36. Of the 21 definable examples in the northern province, 16 were of type I, three of type II, and two of type III. Butler³⁷ has noted five subsequent finds of type I in this province. In the western province, out of 33 definable examples, four were of type I, two were of type II, and 24 were of type III (three were of a typologically later type IV). From this it seems certain that contacts between the decorated axe makers' tradition and the northern province ceased just as type III was being developed, and also that the contacts responsible for trade with the northern province were shifted to France. A later date for the type III axes is suggested by the Pétosse, Vendée, hoard³⁸ where 18 of these axes occurred with 8 'palstaves', although this cannot be regarded as absolute proof as the deposit seems to have been a founder's hoard and contained 29 plain axes as well.

In Nairnshire, Moray, and Banffshire, all save one (of type III) of the axes noted by Megaw and Hardy belong to type I; on the other hand, only one type I example came from Aberdeenshire while four of the five known type III examples (the fifth coming from Easter Ross) came from Aberdeenshire. Subsequently,³⁹ one type I example from Moray and one type III example from Nairnshire have been noted, but the distribution pattern in NE Scotland suggests that the production of decorated axes lasted later in Buchan than it did on the Laich. In the writer's opinion this was because, as the market for such axes in the northern province defined above dried up, the bronzesmiths on the Laich, feeling the effects of competition, moved their industry to Buchan in an effort to reduce overheads and travel time. Finally, all efforts failing to make the trade profitable, they removed themselves entirely from NE Scotland. Such a move would explain the almost complete dearth of MBA material in NE Scotland and would indicate that those who made these and the more utilitarian undecorated axes were not local inhabitants



who had learnt how to make bronze but professional smiths who kept the knowledge of their trade to themselves to the extent that local inhabitants were unable to continue any sort of industry on their own. Further, if it was the loss of overseas markets that compelled the bronzesmiths to withdraw then it suggests that producing axes for the local inhabitants was a sideline neither important nor remunerative enough to warrant remaining in the area, and this may indicate that whatever was obtained in return for their products was counted of considerable value and was unobtainable in NE Scotland – this could, of course, be tin. If these bronzesmiths were not local, they could only have been Irish. The fact that the decorated axes in NE Scotland are much more modest in size than those found on the Continent could be explained by assuming

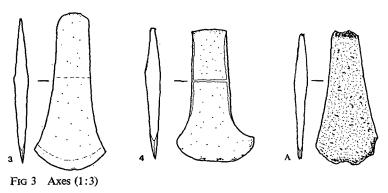
that the former were only produced to keep local buyers happy while the better axes were designed to obtain major concessions on the Continent.

If tin was the sought-after item then one can understand why, although some smiths may have set up in, say, the Danish islands,⁴⁰ the industry as a whole did not move there, because the copper was obtainable - either locally in NE Scotland or from Ireland - more easily near one end of the route, whereas manufacturing in S Scandinavia would have necessitated importing both copper and tin over long distances.⁴¹ Thus it seems doubtful that these Irish smiths actually started the metallurgical industry of S Scandinavia as has been suggested, 42 though they may have provided the initial stimulus. That direct contacts with the Saxo-Thuringian area existed is suggested by Irish axes in the latter area, although Butler⁴³ maintains that these contacts were separate from the contacts with S Scandinavia and came through the Netherlands and Westphalia by way of southern Britain. Possibly tin was traded north to S Scandinavia and brought there by the Irish traders; this would agree with the suggestion of Glob44 and Butler45 of Danish entrepots. However, if amber was traded back to Central Europe in return for tin, it seems strange that the Irish traders did not take some amber back to NE Scotland or Ireland. Amber is almost unknown in Ireland before the LBA⁴⁶ when there was a revival of Irish trade in bronzes and gold objects, and is extremely rare in Scotland⁴⁷ though there are two finds from Aberdeenshire (one each with a beaker and a beaker-food vessel burial). If Irish smiths actually worked in S Scandinavia then this might be a partial explanation for the lack of amber in Scotland and Ireland, as subsequent contacts across the North Sea might then have become rare, but this is at variance with other evidence cited above.

The idea that the Wessex culture grew from its privileged position astride the trade route from Ireland to the Netherlands and then to Central Germany and ultimately in some sense to the Aegean⁴⁸ makes a dichotomy of trade patterns between Ireland and Germany, as suggested by Butler, likely, and the presence in the Wessex culture of amber objects and miniature halberdpendants is difficult to explain otherwise. Further, the finds of Scandinavian flint implements⁴⁹ in E England indicate earlier contacts across the North Sea. It seems possible that, when the economics of the Moray Firth-Buchan industry became no longer profitable, the whole trade simply moved: a trade route across the North Sea to Scandinavia and Central Europe could only have been economical as long as a monopoly in superior material existed with the traders. Butler⁵⁰ has suggested that the Irish material reached Central Europe not via S Scandinavia, but via the Low Countries, and notes⁵¹ that the area between the two regions receiving Irish material had its own supply. Simpson⁵² suggests that the connection between Ireland and the Low Countries at this time saw the Veluwe Beakers of the latter area introduce the Irish bowl food vessel type into the former. In the case of Butler's arguments, it should be noted that the Sogeler Kries in the intervening area between S Scandinavia and Central Europe dates to Hachmann's Horizon II⁵³ rather than to Horizon I to which the Irish material dated; Simpson's suggestion only emphasises that Irish contacts with the Continent existed on a broad front and from several sources - the distribution of EBA decorated axes in Britain⁵⁴ makes it quite clear that the Great Glen route and the Moray Firth-Buchan area had no monopoly of the Irish EBA trade.

The artificial connections between Ireland and S Scandinavia could not last long, and it is significant that of seven European hoards containing axes and/or halberds of Irish form all were datable to the same period, Hachmann Horizon I.⁵⁵ The Ulstrup axe might belong to HH II, but an axe in the Virring hoard, which belongs to HH II, while it has Irish-type decoration on it, is not of Irish form, which suggests that by this time active Irish connections across the North Sea may have ceased. The various gold, bronze, or copper ornaments of Irish manufacture

or inspiration – lunulae, basket earrings, etc – should belong to the same period of Irish trade as the axes and halberds, and though their dating evidence is less specific they agree as to general period – the gold basket earring from Wasosz, Poland, is datable to HH I, and those from Rusilow, Poland, and Bennekom, the Netherlands, fall in the same general time-span, while that from Tindahl near the mouth of the Elbe which appears to be a copy of the Irish type belongs to HH II.56 These objects must in turn have a general contemporaneity with the Orbliston gold earrings and lunula in Moray.57 As Butler dates HH I to approximately the earlier three-quarters of the sixteenth century BC overlapping Reinecke A1-A258 it is difficult on these grounds to extend the period of contact between NE Scotland and Scandinavia beyond 1500 BC at the latest. An additional indication that these contacts cease about this period is that by Re A2 true bronze for German-made axes has become general; and the Dieskau hoard, with its Irish bronze axe, Irish-type halberds and its Saxo-Thuringian copper or poor bronze objects, must be dated to the very end of Re A1.59 The A1-A2 change Butler dates to the first half of the sixteenth century BC.60



MIDDLE BRONZE AGE

Compared to the number of EBA axes in the three counties, those with flanges, midribs, or thickened bodies typologically foreshadowing midribs are almost non-existent (Appendix III). There is a flanged axe from each county: those from Nairn and Moray (the former decorated) with a stopridge, that from Banffshire with only a thickened mid-section; and one unflanged example from Moray with only a thickened mid-section. There are not many more cast-flanged axes – only nine provenanced examples – and no palstaves (in Coles' sense of the term).

Coles, in his survey of Scottish MBA metalwork, divides flanged axes into three classes, all of which are in fact cast-flanged. Of the three flanged axes noted above none appears to be cast-flanged, and all are certainly typologically of Coles' hammer-flanged class. On southern English evidence hammer-flanged axes would date to c 1650-1550/1500 BC and the earliest cast-flanged axes (Coles' Class I) to 1550/1500-1400 BC. Examples of Class II flanged axes (those with convex flanges) and Class III (those with angled flanges) were possibly already being made by c 1500 BC, but it is also possible that flat and hammer-flanged axes remained in production into the fifteenth century BC⁶² – the latter suggestion may accord better with the evidence from the three counties, as will be noted below. Of the four examples of Coles' Class II flanged axes in the three counties, two belong to his Auchendrane group, typologically the earliest group in this class, one belongs to his much later Haddington group which shows palstave influences and dates to perhaps the last two centuries in the second millennium BC, and one is not definable.

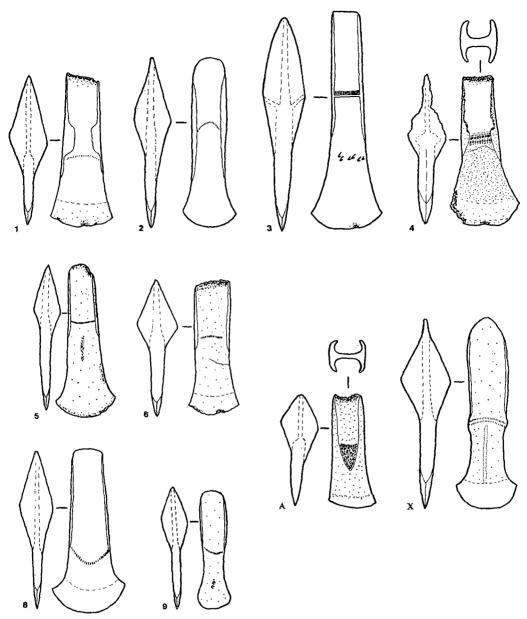


Fig 4 Flanged axes (1:3)

The distribution of the Auchendrane group is predominantly along the S and W coasts of Scotland and in the Tay-Moray-Firth area, and if this represents Irish influence then it could be a reflection of the last of the Irish trade as their smiths found trading through and to Scotland progressively less worth while.⁶³

Of the five examples of Class III flanged axes, two cannot be defined as to group and there are single examples of the Premnay and Kirkless groups (and an unprovenanced Kirkless example from Moray). Typologically the Premnay group is the earliest, and Coles considers this to be a

local development of the Auchendrane Class II group, seven examples being found between the Moray Firth and the Firth of Tay, four in Aberdeenshire.⁶⁴ The Kirkless group shows palstave influence, and, like the Haddington group in Class II, must date to the twelfth century BC or later.⁶⁵

The paucity of MBA material in NE Scotland is thus emphasised, for the Auchendrane and Premnay group examples can be regarded as the final examples of the EBA tradition in the post- (or sub-)Irish influence period in NE Scotland, leaving the handful of remaining cast-flanged axes to cover the next c 700 years until the large-scale introduction of socketed axes heralds the local LBA c 700 BC.66

There is a scatter of MBA spearheads from the area – two of Coles' Class C, four from his Class D, and one from his Class F. Class C spearheads, which are not common in Scotland and rare in southern England, seem certainly to be of Irish origin, and possibly date to as early as the fourteenth century BC. Class D spearheads, on the other hand, are relatively common in Scotland, two moulds being known from Aberdeenshire (one with in addition a matrix for a Class V – Greenwell and Brewis's classification)⁶⁷ and one from Argyll, and are common in England, where twelfth-century BC or later dates are indicated. Class F spearheads are known from only two provenanced examples in Scotland and may have been objects for parade rather than weapons; on N England evidence a date late in the MBA – c 1000–800 BC – has been suggested.⁶⁸

Other MBA material from the area is scarce: the Inshoch Wood hoard (Appendix XII(b), no. 2) contains the only hammerhead known from Scotland, and one of the two anvils of the period known. Both these types can be dated to the twelfth or eleventh centuries $BC.^{69}$ Dirks and rapiers, which Coles dates from c 1400 BC, do not occur in the three counties, nor any nearer than a single example in Aberdeenshire.⁷⁰

In addition to the hammer and anvil noted above, fragments of one of the Class D spear-heads previously mentioned were also found in the Inshoch Wood hoard. This material suggests a smith to have been in the area sometime late in the second millennium BC, particularly as the spearhead fragments appear to have been fused by heat.

The Bothiewell, Nairn palstave was associated with three or four rings coupled together (Appendix XII(b), no. 1). The hoard from Duff House, Banff (Appendix XII(b), no. 4), includes two gold penannular rings, which are probably of Irish origin⁷¹; Eogan places them in his Bishopland phase -c 1200–900 BC -a phase which saw the arrival in Ireland of new ornaments, tools, and techniques.⁷² The Duff House burial is characteristic of cinerary urn burials from the middle of the second millennium BC onwards⁷³ - Abercromby⁷⁴ listed the pot as a food vessel - but as the ornaments cannot be dated that early, the burial must be ascribed to the local MBA; Coles⁷⁵ dates it to his Glentrool phase, eleventh century BC or later.

The hoard from Law Farm, Moray (Appendix XII(b), no. 3), of some three dozen ribbon torcs is similarly difficult to date accurately, but they too are in all probability of Irish origin, and dated by Eogan to his Bishopland phase. However, ribbon torcs belong to the EBA tradition of Irish beaten gold metallurgy, and bar torc and other solid goldwork largely replaced this tradition in the Bishopland phase for so that the late-second millennium BC dating suggested by some ribbon torc finds could belong to the very end of the beaten goldwork tradition. The Duff House burial is unique in Scotland and, as it must represent an important person, could be that of an isolated foreigner; ribbon torcs, however, are found elsewhere in Scotland, and five came from Belhelvie, Aberdeenshire, hinting at the use of the Great Glen route (as perhaps also does the isolated example from Moor of Rannoch). The remaining Scottish examples, certain or probable, emphasise the probability of an Irish origin. The distribution pattern has some resemblance to

that of halberds, for example, and there seems no insurmountable difficulty in suggesting that they could be as early in date as the Moray Firth-Buchan EBA and fit in with the trade of Irish and Irish-inspired gold ornaments noted above which parallels the period of continental trade from NE Scotland. The lack of any examples of these torcs in S Scandinavia or Saxo-Thuringia might be a weakness in this argument, but the goldwork of Irish origin or inspiration on the Continent and datable to this period is sufficiently scattered, and in some cases – Danish lunulae, for example – inferior, to suggest that only a trickle of material came.⁷⁸ If ribbon torcs

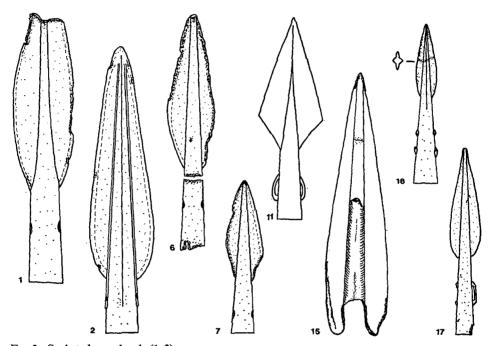


Fig 5 Socketed spearheads (1:3)

could date as early as this, then the two unassociated examples from Brittany⁷⁹ might be of the same time as the decorated axes of Megaw and Hardy's Classes II and III in France noted earlier. The distribution of lunulae in France⁸⁰ also fits this pattern. These are no more than suggestions, and if Eogan is right in suggesting that ribbon torcs originate as copies in sheet metal of bar torcs⁸¹ then this early dating becomes difficult to sustain. However, it does seem possible that the Scottish or at least the Moray Firth-Buchan examples could date as early as the end of the EBA in the latter area -c 1500 BC - although Coles suggests a Glentrool phase date.⁸²

In connection with these and other gold objects found in the area the presence of gold in a tributary burn of the river Nairn⁸³ should be noted. If this gold was used in antiquity – there is admittedly no evidence that it was – then it is likely to have been used either in the local EBA or the LBA, and not in the MBA when the area was a backwater.

In 1935, Childe⁸⁴ made a statistical study of geographical groups of bronze types, following the example of Fox⁸⁵ who assumed in his study of the Cambridge region that proportionately greater numbers of objects should have survived from successive periods. Childe's conclusion

was that MBA and even EBA types persisted in Scotland into LBA times. Nairnshire, Moray, and Banffshire came under his 'Tay to Moray Firth' region and he listed from that region 60 flat or slightly flanged axes, 33 'palstaves' and 44 socketed axes. No new figures are available for the first group, but Coles⁸⁶ has shown that those for the other two groups should be altered to c 40 for the 'palstaves' and c 80 for the socketed axes. However, many more flat or slightly flanged axes can be added to Childe's figure – the writer can list very nearly Childe's number from his three counties alone – it can be seen that the MBA sees a considerable reduction in axe types in NE Scotland, and the almost complete disappearance of these types along the S shore of the Moray Firth.

However, the writer does not believe that earlier types necessarily persisted into later periods: in the case of the area under study he believes that there was a substantially bronzeless MBA following the departure of the Irish smiths and their overseas trade. The area must, in fact, have become largely a backwater with only the occasional cast-flanged axe and spearhead reaching the area.

SECOND-MILLENNIUM CHRONOLOGY

In view of this abrupt change marking the EBA/MBA transition, certain other features of the second-millennium occupation of the area may be tentatively dated. For example, there are 12 segmented faience beads and three star faience beads from the Culbin Sands.87 According to Atkinson, segmented faience beads occur both in Wessex I and II but especially towards the end of Wessex II, and he has suggested that they reached Britain about the time of the Wessex I/II - c 1550-1500 BC.88 The curious mutual exclusiveness of segmented beads on the one hand and star and quoit on the other - the latter are almost non-existent in the S of England, the former only slightly less rare in Scotland - suggests that star and quoit beads were Scottish inventions. The three concentrations of faience are all in sandy regions known to have been occupied in the EBA - Glenluce, Wigtownshire; Stevenston Sands, Ayrshire; and Culbin. The majority of beads analysed proved to be of true faience - of the five Culbin examples, both star beads and two of the three segmented beads were of true faience; the third segmented example was of glassy faience. No quoit beads were recorded from there, but they have been found on the other two sites. Culbin sand was not analysed to see if there had been local production.⁸⁹ Earlier, Scottish faience had been differentiated from that in England.90 If star and quoit beads are Scottish inventions they must be regarded as inspired by the knowledge of the segmented examples - if the Culbin Sands was an early centre for metallurgy in the area as suggested later, locally-made faience beads could have followed very quickly after the arrival of segmented beads made smiths realise that the peculiar fusing of the sand when they were casting metal was producing valuable material.

Segmented beads occur throughout the Wessex culture area, but rarely do many occur with any one burial and in most cases only one or two are deposited. This strongly suggests that in fact 'necklaces' of these beads scarcely existed and that to possess even one bead was accounted a matter of considerable prestige; in fact, all the segmented faience beads known in Britain could have been one potful brought from the Mediterranean by one visiting trader. If these beads were indeed so rare, then the presence of a dozen on the Culbin Sands, whether they came directly from Wessex or not, indicates the importance of the southern shore of the Moray Firth at this time: it is inconceivable that such valuables could have reached the area when it had become a backwater, and the metallurgical industry and its continental trade are the only enterprises in that area that could have commanded such connections. If, then, the seg-

mented beads are to be dated to c 1550-1500 BC the star and quoit beads probably date to c 1500 BC or immediately following. That contacts existed between N Britain and Wessex is suggested by the presence of a few star and quoit beads occurring in Wessex contexts. The fact that these beads are not known from S Scandinavia or Saxo-Thuringia suggests that they date to a period after the cessation of contacts between NE Scotland and these areas. Indirect support of this contention is afforded by the single examples of a star and a quoit bead discovered at Arbon Bleiche in Switzerland in a Re A2 (that is, HHI or II equivalent) context. As these are the only examples known of these beads on the Continent (the Hungarian and Greek examples are of a different type) it seems much more likely that they came from Britain than that they mark a very hypothetical route from an unknown source in the Mediterranean to Britain. As these Swiss examples do not fit into any known trade route starting in NE Scotland, a Wessex origin seems likely, thus emphasising the prior cessation of the NE Scotland trade to the Continent.

If indeed there was a period of contact between N Britain and the Wessex culture, then it is possible that it was occasioned by the former already having a developed industry and trade and the latter having the resources to buy the axes. However, as the material comprised almost wholly flat axes, and more developed axes were already available to the Wessex people, it is unlikely that this trade lasted long – in reality it was probably no more than a brief rearguard action by the Irish smiths to extend a profitable but obsolescent trade as long as possible. By the end of the first quarter of the fifteenth century BC the Laich of Moray must have moved out of the mainstream of trade. The 'High Bronze Age' ends for this area and the succeeding 'Insular Bronze Age' bypasses the area – NE Scotland in fact was valuable in the early second millennium BC only for its geographical position. Apparently its local population did not merit trade from Ireland after the loss of continental trade.

There is one unpublished mould from Culbin (Appendix IV, no. 6), catalogued by NMAS and by Coles⁹¹ as a spearhead, but which in my opinion⁹² is in fact that of a Class I razor. Butler and Smith⁹³ showed that these razors, like the cinerary urns with which they are most commonly found, could be dated relatively early in Britain: on the Continent they occurred in a context at the very beginning of Re B1 and in another to HH II,⁹⁴ which would date them to c 1500 BC. The appearance of the mould at Culbin would thus fall within the suggested life span of the Moray Firth EBA, although later than HH I, the period of trade between NE Scotland and the Continent. That its appearance is not a wholly isolated phenomenon is suggested by a similar mould from Strathnaver, Sutherland. A blade from the Culbin Sands,⁹⁵ now lost, may have been a Class I razor.

The upper limit of the EBA in NE Scotland has still to be determined, and for this there is rather less definite evidence. The writer has elsewhere indicated that the beaker settlement of the area must have been prior to the introduction of metallurgy, and that the former had settled very markedly from the sea while the distribution of bronzes indicates that by the time metallurgy had been introduced settlement on the S shore of the Moray Firth was concentrated virtually wholly on the fertile Old Red Sandstone soils of the Laich. The introduction of metallurgy to the area therefore follows – and probably not immediately – the beaker settlement which on Dutch evidence should be in the twentieth century BC. Hawkes suggests that copper metallurgy may have come c 1850 BC, bronze appearing c 1650–1600 BC. This latter date agrees quite closely with Butler's dating of HH I – sixteenth century – and it seems reasonable to suggest a commencing date of c 1600 BC for the Moray Firth-Buchan industry, remembering that only two of the 53 provenanced flat axes from the Laich were of copper and broad-butted.

In summary, therefore, one may date the EBA of the area to c 1600–1475 BC.

EARLY BRONZE AGE SETTLEMENT

If the metallurgical industry of the area was indeed a 'closed' industry, run by Irish smiths wholly for trade and principally overseas trade without the local inhabitants acquiring enough knowledge to continue producing bronzes after the Irish left, it is possible that the Irish had certain industrial centres where they could increase their efficiency by having specialised production. One such area may well have been the Culbin Sands, for that area yielded two flat axe moulds, one Class I razor mould, five or six bronze flat axes, and a number of bronze blades. While mesolithic flints came from Kingsteps Quarry near Nairn in an uncertain position – perhaps late Boreal and Atlantic times⁹⁹ – and the Sauveterrian industry has been found as far N as Banchory in Aberdeenshire,¹⁰⁰ Lacaille¹⁰¹ has dated the Culbin flintwork to the Bronze Age rather than to any mesolithic tradition. Food vessel and especially cinerary urn evidence occurs at Culbin but no beaker evidence is known,¹⁰² and with the exception of a tiny scrap of neolithic-looking pottery¹⁰³ nothing earlier appears to be recorded. This agrees with the suggestion that the area may not have been habitable earlier. ^{104, 105}

Another centre may have existed somewhere in the middle or lower Deveron valley. The Colleonard hoard (Appendix XII(a), no. 5) must have been a founder's hoard, and came from a spot about a mile W of Banff; the axes from Hill of Fortrie of Balnoon (Appendix XII(a), no. 6) and the halberds from Auchingoul (Appendix XII(a), no. 7) both come from Inverkeithny parish, about 5 miles W of Turriff. Marnoch parish, where a mould for flat axes and a ring was found, is adjacent to Inverkeithny on its W. The mould and two axes in the Dufftown area are curious, for they are on the fringe of Bronze Age settlement, away from the main concentration.

With direct connection between pottery and bronze types so rare, it is unfortunate that the pot in which the Colleonard axes were deposited is something of a unicum. It would appear to be a small cordoned cinerary urn, a type which can now be dated to the first half of the second millennium BC. 106 The cordon, the inturned rim with internal bevel, and the profile have parallels in Irish cordoned cinerary urns – urn 2 from Gordfad, Co. Londonderry, for example 107 – and Barber 108 feels it is probably an early domestic counterpart of these urns. The slightly splayed foot and the slovenly attempt at decoration might represent a trace of beaker ancestry 109 – at Ronaldsway, Isle of Man, a small pot had a similarly poor attempt at decoration and a slight foot, while two other generally similar pots had neither foot nor decoration. 110 All this, together with the possibility of an Irish origin for cordoned cinerary urns, 111 add to the evidence of Irish contacts with NE Scotland at this time.

As mentioned earlier, the distribution of bronzes is almost wholly confined to the fertile Old Red Sandstone Laich, with the exception of the Deveron Valley. Beaker settlement, on the other hand, while occurring commonly on the Laich, also occurs in lowland Banffshire as would be expected from a predominantly coastal settlement. The lack of bronzes in Banffshire other than the Deveron valley suggests that the beaker settlements in coastal Banff had either died out or more likely moved to the Laich. The bronzes in the Deveron valley must almost certainly be connected with the beaker and cinerary urn peoples – the latter probably newcomers¹¹² – in that area. There is evidence that the beaker occupation of Aberdeenshire continued as a recognisable entity well into the fifteenth century BC at least, and it is quite certain that the beaker people were the principal inhabitants of NE Scotland while the EBA of the area flourished, and indeed, after it had passed.¹¹³ In the isolated area of The Cabrach, Banffshire, the single flat axe (Appendix I, no. 37) is no doubt connected with the isolated beaker settlement there.¹¹⁴

With changing trade patterns taking NE Scotland – indeed most of Scotland – out of the forefront of European trade, the southern shore of the Moray Firth no doubt continued for a

time in its own local EBA. Flat axes must have continued to be used as long as they were usable, and, however exclusive the Irish smiths had been, some knowledge of metallurgy must have existed among some of the local inhabitants. However, the paucity of MBA material clearly indicates that outside resources were unobtainable and that the EBA traditions must have died within a generation or so of the departure of the Irish smiths, resulting in a largely bronzeless MBA, from the first half of the fifteenth century onwards.

Potential trade routes in the area seem to have been little used. The beaker settlement had never made use of any of the rivers leading into the interior. Three beakers - one from Achroisk parish; two from Knockando parish - in the very lowest part of Strath Spey, arriving either via the Spey valley or the Mannoch road from the Laich over the Brae of Moray, are the only hints of any landward penetration by these settlers. Bronzes are almost as rigidly absent from the hinterland: only three axes break this pattern. In addition the axe and ring from Glen Rothes (Appendix XII(a) no. 4) suggest this shortcut to the lowest part of Strath Spey was used. The axe from Braemoray must have come via the Dorback Burn and the Findhorn; and as this route leads to central Strath Spey, the isolated axe from Boat of Garten, Inverness-shire, may also have come this way. Farther down this route, on the Findhorn, the two axes and a halberd from a cist - presumably a burial - at Muir of Sluie and a decorated axe from the same area, may mark this route. The rapids at this point mark the junction of the Old Red Sandstone and the older schists and gneisses of the hinterland, and the head of canoe navigation, 115 The axe from Milton Moss, Knockando - one of the two broad-butted copper axes from the area could have reached lower Strath Spey either by the lower Spey or over the Mannoch. Either the upper Nairn, Findhorn, and Spey were uninhabited at this time, or the Clava cairn builders still living there utterly refused to have dealings with the coastal settlers and their bronzes - a very strange alternative.

LATE BRONZE AGE

The Scottish LBA material has been studied by Coles. 116 The earliest LBA influences arrive during the ninth century BC in Coles' Poldar phase; however, the main arrival of the LBA types did not arrive until the eighth century and following, in Coles' Duddingston phase. Impinging on the Duddingston phase and its development, the Ballimore sub-phase of the sixth century and later, but not contributing to it, were three settlements on the Scottish E coast. These are Coles' Covesea, 117 Adabrock, and Tarves phases, starting c 700 BC, c 600 BC, and c 500 BC respectively. The Covesea settlement, with the exception of two finds in the Tay-Forth area, is restricted to the Moray Firth-Buchan area referred to in discussing the EBA material; the Adabrock phase, with the exception of two finds in Buchan, has an E coast distribution immediately to the S of the Covesea area as well as a W coast distribution.¹¹⁸ This suggests that the Covesea settlement still existed as a distinct entity when the Adabrock material arrived a hundred years later and that the former rejected both the material and any settlers who came. Coles suggests that the Adabrock material came from trading or raiding expeditions, 119 but the distribution pattern vis-à-vis Covesea material hints at some settlement. The Tarves phase is characterised by swan's neck sunflower pins¹²⁰: Coles suggests that these objects represent further contacts between the Covesea settlement of about two centuries previously and its NW German area of origin, 121, 122 but on distributional grounds it might rather indicate contacts with Adabrock-phase settlers in the Tay-Forth area. 123 However, Coles suggests a southerly extension of Covesea territory¹²⁴ which is possible on the distributional evidence.

Patterns of LBA trade and settlement involving the Laich of Moray are not as simple as

those of the EBA, but it is clear that in this period as well as the renewal of contacts across the North Sea, the contacts with Ireland via the Great Glen once more existed. For example, of the 13 classifiable socketed axes from the three counties, eight are of the Irish bag-shaped variety or related to it. The distribution of this variety indicates Irish contacts with SW Scotland, and the Laich and Buchan, and a considerable local copying of the type in E Scotland, particularly in the Forth and Tay areas. 125 By contrast, there are none of the three-ribbed or decorated socketed axes so common in SE Scotland, and which also occur in a rather isolated Buchan group. 126 Of the remaining five, three are of the rectangular-sectioned or related types and two are of the facetted type. Neither type can be given a specific place of origin at present although the former are so numerous in England that their immediate source must be there. With one exception all the socketed axes come from the Laich or its immediate environs; lowland Banffshire has no known examples.

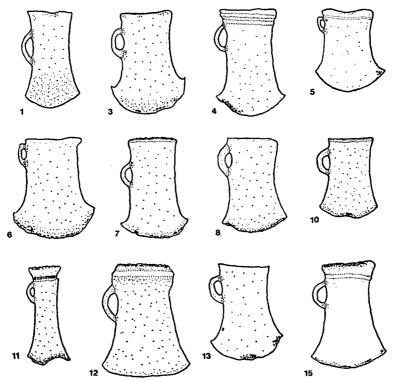


Fig 6 Socketed axes (1:3)

There are ten provenanced LBA spearheads (Greenwell and Brewis's Classes V, VA, and VB¹²⁷) from the three counties: these spearheads are common in E Scotland as far N as the Moray Firth, but also occur in Argyll which suggests that some possibly reached NE Scotland from Ireland via the Great Glen route. ¹²⁸ The spearhead moulds from Aberdeenshire ¹²⁹ suggest perambulating smiths or local production. However, one of the spearheads from the Cullerne House hoard, Moray, is identical to one on the Point of Sleat hoard in Skye, coming from the same mould, ¹³⁰ while the curved socketed knives in these hoards are almost identical and may also have come from the same mould (the Cullerne House example is in mint condition while the

Point of Sleat example has been used). A similar curved socketed knife came from the Wester Ord hoard in Easter Ross, which also included distinctive Covesea material.¹³¹ As such knives are of Irish origin¹³² and several items in the Point of Sleat hoard are of Irish origin and in mint condition, Irish sources for some or all of the Cullerne House material seem likely.

Three provenanced swords came from the three counties, with two unprovenanced examples possibly from Banffshire (Appendix VIII). These Ewart Park type swords appear to have come ultimately from S England, although they occur predominantly in NE England, ¹³³ and the Scottish examples, which occur chiefly on the E coast between the Firth of Tay and the Moray Firth with a cluster in the Edinburgh area, ¹³⁴ may come from this latter area. A sword in mint condition was found in the Point of Sleat hoard together with other mint material which was of probable Irish origin, ¹³⁵ but there is no concentration of swords in NE Ireland, where one would expect them if they were part of Irish LBA trade to Scotland. ¹³⁶ Two clay sword-moulds have been found in E Scotland. ¹³⁷ However, the W coast distribution of these swords in Scotland is predominantly in hoards ¹³⁸ which might indicate that smiths – presumably Irish – were active at least in that area, though there seems no obvious reason for this. Generally, Ewart Park swords occur throughout the Highland Zone from the seventh century BC onwards. ¹³⁹ The E coast Scottish distribution suggests that the examples from that area may have been specifically connected with the Covesea settlement.

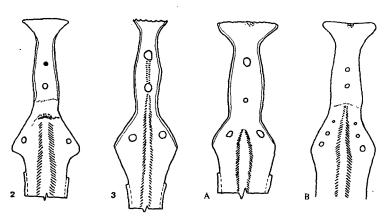


Fig 7 Swords (1:3)

The diagnostic features of the Covesea phase are decorative objects, such as bracelets and armlets which occur in E, especially NE, Scotland¹⁴⁰ and which Coles¹⁴¹ has shown to be of a German tradition, the nearest parallels to the Scottish material coming from the North European Plain.

LBA armlets have been divided into three types by Proudfoot¹⁴²; type 1 with plain or evenly expanding terminals, type 2 with outwards-expanding terminals, and type 2a which differs only from type 2 in having ribbing at the terminals. They occur in both gold and bronze examples. Coles shows that only types 2 and 2a can be called Covesea armlets. He has also shown that types 1 and 2/2a have quite a different distribution. He Type 1 is not common on the Continent, but very common in Ireland, and their distribution in Scotland indicates an Irish origin. The gold examples occur in SW Scotland with a penetration along the Midland Valley to the Forth and Tay basins; the bronze ones in E Scotland from the Tweed to the Moray Firth. The Covesea examples, all but one of bronze, are confined to the Forth-Moray Firth area. That

the Irish and Covesea types are contemporaneous is indicated by their occurrence together, including those at Auchtertyre and Covesea in Moray.¹⁴⁵ This occurrence of Irish types in the North-East indicates some contact with Ireland via the Great Glen, though the lack of gold examples is curious. This suggests that some of the examples were copies of Irish examples, for no bronze examples occur in SW Scotland, which was nearer to Ireland.

Another Irish ornament is Proudfoot's type 3, Coles' cup-ended armlets. Seventeen¹⁴⁶ of these are known from Scotland, all save two of gold, and of the 14 provenanced examples (13 of gold) ten (all gold) occur in SW Scotland. There is an entirely isolated example from Cromdale parish, in Strath Spey, either Moray or Inverness-shire (Appendix IX, no. 17). It is just possible that this item represents a venture into Strath Spey from the W coast, perhaps using the Spean river and Loch Laggan route from the S end of the Great Glen, but the complete lack of these objects from NE Scotland indicates that this example did not form part of any trade route. As noted earlier, Strath Spey seems to have been uninhabited after the time of Clava cairn builders, for this object and one flat axe are the only Bronze Age objects known from Strath Spey above Knockando parish. Some penetration from the Laich up the Spey to the Abhainn and perhaps by way of the Lecht to Aberdeenshire may be indicated by the spearhead from Inverlochy (Appendix VII, no. 17), the socketed axe from Tomintoul (Appendix VI, no. 15), and the piece of false ring money from Coire na Fuaraig (Appendix X, no. 11), all in Kirkmichael parish, but the use of such a difficult route as the Lecht can never have been popular as a route for traders or settlers.

Work on the English bronzes has indicated that the traditional LBA is, as Childe suggested long ago though for different and perhaps subjective reasons, marked by something of a revolution in technology: from an as yet unknown source the idea of adding lead to the bronze mixture was introduced. This may have initially been to facilitate casting or to reduce corrosion, but the amount of lead added is rarely under the 2% which is the optimum compatible with strength, ductability, and resistance to corrosion, and it may have been added to effect an economy in copper and tin – a 'sharp practice' for social prehistorians to revel in. The traditional MBA items, rapiers and 'palstaves' contain no lead, or only traces; LBA leaf-shaped swords and socketed axes consistently have a relatively high percentage of lead. Class II razors were of the latter group; all but two of the Class D spearheads were of the former group. The only LBA item from the three counties that has been analysed so far is the anvil from Inshoch Wood (Appendix XII(b), no. 2), and this has only a trace of lead. Thus, as would be expected on other grounds, this object is pre-LBA in date.

The occupation pattern of the area as represented by the distribution of bronzes in the LBA shows little difference to that of the EBA: again the fertile Laich has most of the material, the Banffshire material being confined to the Deveron Valley. Again, the hinterland appears to have no occupation.

SUMMARY

The prehistory of the Laich sees periods of trade and settlement throughout its long occupation, and the most important geographical factor is undoubtedly the Great Glen giving access to Ireland and the Irish Sea route. Prior to the use of steamships it could take as much as 90 days to sail from Aberdeen to Glasgow; it is on record that of two ships that set out from Aberdeen, one for Glasgow, the other for India, the latter reached its destination first – such were the dangers of the Pentland Firth and the Minch. The average for the Aberdeen–Glasgow voyage was 14 days. 149 As early as five thousand years before the Caledonian Canal was completed in

1822 settlers from Ulster had journeyed up the Great Glen and settled at Easterton of Roseisle; they or related people brought the axes of Tievebulliagh porcellanite from Ulster found in NE Scotland. Perhaps at this early date the farming of the light and fertile soils which is still the staple economy of the area had already begun. In the twentieth century BC a major settlement of NE Scotland by beaker people from the Netherlands and the Rhineland occurred, to remain as a distinct entity for at least 500 years. Perhaps immediately after this settlement came that of the Clava cairn builders, a strange people who shunned the fertile coastal plain and were the only people to leave any evidence of habitation in Strath Dearn and Strath Spey in prehistoric times. They appear to have died out by the time metallurgy was introduced to the Laich c 1600 BC from Ireland via the Great Glen, by which time most of the coastal settlers in Banffshire had probably moved to the Laich.

At this time there is evidence of considerable use of the Great Glen. Later beaker people, represented by Irish vase food vessels, travelled down the Great Glen to Ireland, sporadic Irish bowl food vessels and rather common cordoned cinerary urns in NE Scotland show a reverse movement, Irish smiths traded decorated axes to S Scandinavia and central Europe, and halberds made the reverse journey to Ireland. Enlarged food vessel cinerary urns suggest contacts with the Yorkshire area. By 1500 BC, however, the trade with Europe failed in the face of increasing competition from European bronze-producing centres. At this point, faience beads suggest a brief contact with Wessex, perhaps an attempt to trade, but by the early fifteenth century BC the Irish smiths had cut their losses and left to find new trade routes and markets, taking their closely-held knowledge of metallurgy and their ability to organise the supply of the raw material with them, and leaving the Laich in a bronzeless MBA until c 700 BC when eastern Scotland between the Tay and Moray Firth was settled from N Germany by the Covesea people. With this settlement LBA material appears, some of it Irish and arriving via the Great Glen. The Covesea settlement appears to have remained distinct for at least 200 years, but the following six centuries are obscure until the historical Caledonii are encountered in the first century AD.

Editor's note: this paper was submitted for publication in 1969 and does not include material published after that date.

NOTES

- 1 Junghans, S, Sangmeister, E, and Schröder, M, Metallanalysen Kupferzeitliche und frühbronzezeitliche Bodenfunde aus Europa (Studien zu der Anfängen der Metallurgie, Band I, 1960).
- 2 However, I am very grateful to R B K Stevenson, Keeper, NMAS, for allowing me to see the first results of analyses of National Museum material from the three counties under consideration.
- 3 Hawkes, C F C, 'A Scheme for the Bronze Age', CBA 'Problems of the Bronze Age' Conference, London, December 1960.
- 4 PPS, xxIII (1957), 91-123.
- 5 cf Otto, K and Witter, W, Handbuch der ältesten vorgeschichtliche Metallurgie in Mitteleuropa (1952).
- 6 Information from Dr Beatrice M Blance.
- 7 Childe, V G, The Dawn of European Civilization (6th ed 1957), 278.
- 8 PPS, IV (1938), 294.
- 9 loc cit.
- 10 PSAS, xcvi (1962-3), 104.
- 11 loc cit.
- 12 Piggott, S, Ancient Europe (1965), 98.

- Piggott, S, 'Traders and Metal Workers', 73-103 in The Prehistoric Peoples of Scotland (ed S Piggott) (1962), 89.
- 14 PPS, xvII (1951), 69, Appendix IIA, 43 and 49.
- 15 PSAS, XCVI (1962-3), 105-6.
- 16 Childe, V G, Prehistory of Scotland (1935), 97.
- 17 PSAS, xcvm (1964-6), 90-1.
- 18 Sibrium, IV (1958-9), 129-37.
- 19 cf *PPS*, xxix (1963), 263-79.
- 20 op cit, xvп (1951), 41.
- 21 cf PPS, xxix (1963), 260, 284.
- 22 PSAS, xciv (1960-1), 58.
- 23 cf Ant, xxxvi (1962), 118.
- 24 PSAS, xcvm (1964-6), 84-7.
- Brunn, W A von, Steinpackungsgräber von Kothen ein Beitrage zur Kulture der Bronzezeit Mitteldeutschlands (DA Schiften, Band 3, 1954) 36ff, esp. 40.
- 26 Palaeohistoria, VIII (1960), 101-26, esp. 115-17; IX (1963), 40.
- 27 Arch, LXXXVI (1936), 195-321.
- 28 *Palaeohistoria*, IX (1963), 11-36 and refs on pp 22 and 29.
- 29 ibid, 40.
- 30 cf Piggott, 'Traders and Metal Workers', 101.
- Palaeohistoria, 1x (1963), 11-26. 31
- ibid, 266, Map 1.
- A well-preserved halberd type not given was found in Leanachan Forest, Spean Bridge, Inverness-shire, at the S end of the Great Glen (DES(1960), 28).
- 34 Palaeohistoria, IX (1963), 23.
- 35 ibid, 22-3.
- 36 PPS, IV (1938), 272-307.
- Palaeohistoria, 1x (1963), 31-3, 34, 36-7, 46-7; Map II. 37
- 38 PPS, IV (1938), 306, R. 253.
- 39 PSAS, xcv (1961-2), 306-7.
- 40 This idea has been suggested by various people; refs *Palaeohistoria*, IX (1963), 13.
- 41 cf ibid, 208.
- 42 Forssander, J.E., Der ostskandinavische Norden während der ältesten Metallzeit Europas (1936), 178.
- 43 ibid, 37-9, 201-4.
- Kuml, (1951), 23-39.
- op cit, (1955), 36-45; Palaeohistoria, IX (1963), 33.
- JCHAS, XLIX (1944), 122-7 notes none, but add PPS, XXI (1955), 163-73 and Palaeohistoria, IX (1963), 164, n. 1.
- 47 Childe, V G, Scotland before the Scots (1946), 59.
- PPS, IV (1938), 52-106. 48
- loc cit; Palaeohistoria, IX (1963), 204-5. 49
- 50 Palaeohistoria, IX (1963), 34.
- 51 ibid, 39, 197, fig 45 left.
- 52 TDGNHAS, XLII (1965), 35.
- 53 Palaeohistoria, IX (1963), pl XXI.
- 54 ibid, 242.
- ibid, 241-2. 55
- 56 ibid, 176-90, 206.
- 57 PSAS, xcviii (1964-6), 93-4, 118-19.
- 58 Palaeohistoria, IX (1963), pl XXI.
- 59 ibid, 35, 40.
- 60 ibid, pl XXI.
- 61 PSAS, xcvn (1963-4), 86.
- ibid, 88. 62
- cf ibid, 92, 93 fig 4, 94. 63
- ibid, 94, 99 fig 5, 132-41.

- 65 ibid, 98.
- 66 ibid, 103.
- 67 Arch, LXI, pt II (1909), 439-72.
- 68 PSAS, XCVII (1963-4), 103-11.
- 69 ibid, 117-18.
- 70 ibid, 111-14.
- 71 ibid, 122.
- 72 PPS, xxx (1964), 277-86.
- 73 cf PSAS, xcviii (1964-6), 95-8.
- 74 Abercromby, J, A Study of the Bronze Age Pottery of Great Britain and Ireland (1912) I, no. 277.
- 75 PSAS, XCVII (1963-4), 150, 129.
- 76 PPS, xxx (1964), 285.
- 77 PSAS, XCVII (1963-4), 147.
- 78 PPS, m (1937), 465.
- 79 op cit, xxx (1964), 280.
- 80 e.g. Fox, C, The Personality of Britain (1952 reprint), 48 fig 22.
- 81 JRSAI, 92 (1962), 54.
- 82 PSAS, xcvII (1963-4), 124, 126.
- 83 op cit, xcvi (1962-3), 101 and refs.
- 84 Childe, V G, The Prehistory of Scotland (1935), 147-51.
- 85 Fox, C, Archaeology of the Cambridge Region (1927), 18.
- 86 PSAS, xcm (1959-60), 20.
- 87 Arch, LXXXV (1935), 5.40 (p 245) and 5.52 (pp 246-7).
- 88 Atkinson, R J C, 'A Statistical Consideration of the Wessex Bronze Age', CBA 'Problems of the Bronze Age' Conference, London, December 1960.
- 89 PPS, xxII (1956), 37-84.
- 90 Arch, LXXXV (1935), 203-52.
- 91 PSAS, xcvii (1963-4), 118, 147.
- 92 Shared by Dennis Britton, letter dated 20th March 1961.
- 93 ULIA, 12th Ann Rep (1956), 20-36.
- 94 Palaeohistoria, IX (1963), 242.
- 95 PSAS, IV (1860-2), 377.
- 96 op cit, xcvm (1964-6), 84-91.
- 97 pace Dr Stewart, op cit xcII (1958-9), 80.
- 98 Hawkes, C F C, 'A Scheme for the Bronze Age', CBA 'Problems of the Bronze Age' Conference, London, December 1960.
- 99 TPBSE, xxxvi (1952-5), 224-9.
- 100 PPS, xxi (1955), 13 fig 5, 20.
- 101 Lacaille, A D, The Stone Age in Scotland (1954), 281-2.
- 102 PSAS, XCVIII (1964-6), 76-125.
- 103 Unpublished; Hunterian Museum, University of Glasgow, B.1951, 986.
- 104 Geog J, xc (1937), 498-9.
- 105 SGM, 73 (1957), 77.
- 106 PSAS, xciv (1960-1), 318-19.
- 107 UJA, 22 (1959), 35.
- 108 Letter from J Barber, City Museum and Art Gallery, Plymouth dated 7th November 1960.
- 109 PSAS, xcvIII (1964-6), 84, 99-110.
- 110 PPS, xm (1947), 139-62, fig 6b; 6a and 6c.
- 111 PSAS, XCIV (1960-1), 319.
- 112 op cit, 319-20.
- 113 op cit, хсуш (1964–6), 98–9.
- 114 ibid, 90.
- 115 PPS, XVII (1951), 57.
- 116 PSAS, XCIII (1959-60), 16-134, esp 53-5; XCVII (1963-4), 130 fig 20.
- 117 Pronounced 'Cowsey' in the local Moray dialect.
- 118 PSAS, xcm (1959-60), 63 Map 8.

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92
        PROCEEDINGS OF THE SOCIETY, 1971–2
119 ibid, 47.
120 op cit, xcII (1958-9), 1-9.
121 ibid, 9.
122 op cit, xcIII (1959-60), 55.
123 cf ibid, 63 Map 8 with op cit xCII (1958-9), 8 fig 2.
124
     op cit, xcII (1958-9), 9.
125 op cit, xcIII (1959-60), 33, 60 Map 5.
126 ibid, 26-7, 58 Map 3.
127 Arch, LXI pt II (1909), 439-72.
128 PSAS, XCIII (1959-60), 61 Map 6.
129 ibid, 89.
130 ibid, 46.
131 ibid, 46, 130.
132 ibid, 30.
133 loc cit, and op cit, xci (1958-9), 186.
134 op cit, xcn (1958-9), 185 fig 3.
135
    op cit, xcm (1959–60), 30.
136 op cit, хси (1958-9), 186.
137
    op cit, xcm (1959-60), 89.
138 op cit, xcu (1958-9), 185 fig 3.
139 ibid, 182.
140 op cit, xcm (1959-60), 63 Map 8.
140 op cit, xcIII (1959-60), 63 Map 8.
141 ibid, 39-44.
142 Proudfoot, V B, The Downpatrick Gold Find (1955), 15-16.
143 PSAS, xcm (1959-60), 39-40.
144 ibid, 62 Map 7.
145 ibid, 90.
146 ibid, 90-1.
147 PPS, xxv (1959), 188-208.
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APPENDICES

148 PSAS, LXXX (1945-6), 8-11.

Abbreviations

Anderson 1886 Anderson, J, Scotland in Pagan Times: Bronze and Stone Ages (1886).
Childe 1946 Childe, V G, Scotland before the Scots (1946).

Evans 1881 Evans, J, The Ancient Bronze Implements, Weapons and Ornaments of Great Britain

and Ireland (1881).

149 Quoted in Scottish Field, XIII, no. 767 (Nov 1966), 34.

Proudfoot 1955 Proudfoot, V B, The Downpatrick Gold Find (1955), Arch Res Publ 3, N Ireland.

Wilson 1851 Wilson, D, Archaeology and Prehistoric Annals of Scotland (1851).

APPENDIX I
Catalogue of Flat Axes

Cata	nogue of Tiat Tixes			
Number	Find Spot	References	Present Location	P articulars
1	nr Nairn <i>probably</i> Nairn Nairn	PSAS, xiv (1879-80), 277; PPS, iv (1938), 272-307; Evans 1881, 58-9; Anderson 1886, 73-4	NMAS - DA 8	purchased 1880, MH Class I ²
2	nr Nairn <i>probably</i> Nairn Nairn	unpublished	BM - WG 1796	ex Greenwell Coll
3-4	Barevan, nr Cawdor Cawdor Nairn	<i>PSAS</i> , LVI (1921–2), 169; 358–9	NMAS - DQ 264-5	Appendix XII(a) no. 1. MH Class Ia DQ 264; DQ 265 undecor
5	'Cawdor' Nairn	unpublished	Earl of Moray	ex M'Kewen of Dyke Coll, sold as Lot 10 to Earl of Moray
6–7	on or nr Culbin Sands Dyke and Moy Moray	PSAS, XXI (1886-7), 9; XXV (1890-1), 503; TISSFC, V (1895-9), 123	one NMAS - DA 59, other <i>formerly</i> M'Kewen of Dyke Coll	Appendix XII(a) no. 2
8	nr Culbin Sands Dyke and Moy Moray	TISSFC, v (1895–9), 123; TNALSS, п, рt пп (1896), 52–3	Falconer Museum, Forres	in 1896 M'Kewen had two bronze axes 'from the immediate neighbourhood, though not actually found among the sandhills'; one probably no 7, the other possibly this labelled 'Dyke Manse Collection' poor condition, bent, butt and point of blade broken, max. surviving length 2·3 in and breadth 1½ in
9–10	Culbin Sands Dyke and Moy Moray	PSAS, xxv (1890–1), 503	formerly NMAS	'disappeared' from NMAS by 1890
11	parish of Dyke and Moy Moray	unpublished	BM – WG 1798	ex Greenwell Coll
12	Kintessack Dyke and Moy Moray	unpublished	Earl of Moray	ex M'Kewen Coll, sold as Lot 9 to Earl of Moray, ? no. 7
13	nr Darnaway either Dyke and Moy or Edinkillie	PSAS, xxxvii (1901-2), 629	NMAS – prob. DA 69	probably to be identified with DA 69 on grounds of dimensions and date of arrival (1902) though NMAS Cat. does not give provenance

APPENDIX I—continued

Catalogue of Flat Axes—continued

Number	Find Spot	References	Present Location	Particulars
14	Darnaway Castle either Dyke and Moy or Edinkillie Moray	unpublished	private collection?	said to be in the possession of a Mr Robinson of Stoneyford Cottage, Forres; attempts to trace axe unsuccessful
15	Muir of Sluie Edinkillie Moray	Wilson 1851, 253-4; PPS, IV (1938), 300; XVII (1951), 76	unknown	illustrated by Wilson, no details of discovery or whereabouts; with nos 16 and 17? MH Class I ³
16–17	Muir of Sluie Edinkillie Moray	Appendix XII(a) no. 3	NMAS - DA 32-3	two axes and a halberd (Appendices II no. 1 and XII(a) no. 3). Both axes J gp B2
18	Braemoray Edinkillie Moray	unpublished	BM - WG 1795	ex Greenwell Coll gift to him from J Pierpont Morgan 1909
19	Goatcraig Dallas Moray	unpublished	Elgin Museum - 1865.1	catalogued 'Goat's Craig, Dallas'; came to Museum in 1865
20	Briach Hill Rafford Moray	PSAS, xxii (1887-8), 353	Falconer Museum, Forres	found before 1888
21	Burgie Hill or Moss Rafford Moray	loc cit	Falconer Museum, Forres	found before 1888, provenance 'Burgie Hill' present label 'Burgie Moss'
22	Roseisle Duffus Moray	unpublished	Elgin Museum – 1872.1	came to Museum 1872
23	probably that from Roseisle Duffus Moray	unpublished	Elgin Museum – 1872.3	came to Museum 1872
24	probably that from 'Duffus', Moray; possibly that from parish of Rathven Banff	unpublished	Elgin Museum-probably 1874.9; possibly 1860.1	see also flanged axe 9. came to Museum 1874 or 1860

25	nr Palace (Castle) of Spynie Spynie Moray	unpublished	Elgin Museum – 1868.8	'one of two found near the Castle of Spynie', Henshall's typescript catalogue; the other is almost certainly socketed axe (Appendix VI no. 12)
26	'nr Elgin' parish uncertain Moray	unpublished	Ulster Museum – 181:1913a	according to catalogue of the sale of antiquities, collected by a Robert Day, it was 'found near Elgin 1909'
27	parish of Birnie Moray	unpublished	Forres Museum	
28	Wellbrae Birnie Moray	Catalogue of Antiquities, Works of Art and Historical Scottish Relics Exhibited in the Museum of the Archaeo- logical Institute of Great Britain and Ireland 1856 (1859); PSAS, XXII (1887-8), 342	formerly Elgin Museum	presented to Museum in 1851; still at Elgin 1888, now lost
29	Netherglen, Glen Rothes Rothes Moray	unpublished	Elgin Museum – 1953.22	Appendix XII(a) no. 4
30	Milton Moss Knockando Moray	NSA, XIII (Elginshire), 68; OS Name Book (1870); 6 in OS Map (2nd ed 1906) Elginshire, XXII SW; PSAS, LXX (1935-6), 358	NMAS – DA 101	donated to NMAS in 1936 with note that it had been found with 'part of a sword' in Milton Moss in 1864. NSA 'A small Danish battle axe of copper' found on farm of Milton; no mention of sword. 6 in OS Map marks findspot of 'Danish Copper Battle Axe and Portion of Sword'. OS Name Book says axe and sword discovered 'about 60 years ago' (i.e. c 1810), that 'axe had recently been stolen from owner William Grant of Carron'.

Alleged find date of 1864 and recent loss in 1870 possibly significant. Name Book does not actually say they were found together and possibly NSA version is correct, at which time, axes in possession of 'William Grant, Esq. Younger of Wester Elchies'; Name Book refs to erstwhile owner William Grant of Carron: Carron Ho. part of Wester Elchies

estate. J gp E 00, copper

APPENDIX I—continued

Catalogue	οf	Flat	Axes-	-continued
Catalogue	w	riai	AACS-	-commuueu

Number	Find Spot	References	Present Location	Particulars		
31	parish of St Andrews- Lhanbryd Moray	<i>PSAS</i> , lviii (1923-4), 20	NMAS – DA 84	found 1905 4 ft below the roadway nr 'the crossroads at St Andrews, Lhanbryd' J gp B 2, copper		
32	ʻLhanbryd' Moray	<i>PSAS</i> , xxxviii (1903-4), 11; xcv (1961-2), 306	NMAS – DA 72	purchased by NMAS in 1903 MH Class I ² , J gp E00		
33	parish of Urquhart Moray	unpublished	BM - WG 1797	ex Greenwell Coll gift to him from J Pierpoint Morgan 1909. Museum label says Lhanbryd parish but original label says 'found on Mr Jack's farm about a mile east of Lhanbryde in 1880, J S (?) Phillips', thus Urquart parish		
34	Newfield Urquhart Moray	unpublished	Elgin Museum – 1897.1	came to museum 1897		
35	probably that from parish of Urquhart Moray	unpublished	Elgin Museum – prob. 1875.4	marked '107', came to museum 1875		
36	Parkhill, The Enzie Rathven Banff	TNALSS, II, pt III (1895), 65; PSAS, XXXIII (1898–9), 35	Marischal College Univ of Aberdeen – 247/13	found by a Robert Gardiner in 1892, rather than 1896, at 'Hill Park'; in coll of George Thompson, Mains of Gollachy, nr Banff in 1898. $4\frac{1}{2}$ in long, blade $2\frac{1}{2}$ in across, butt $1\frac{1}{8}$ in; $9\frac{1}{2}$ oz, smooth oxidised surface. To J G Callander and with his coll to Marischal Coll.		
37	Howbog The Cabrach	PSAS, хvііі (1883-4), 326; lxxіі (1937-8), 69-70	probably NMAS – DA 106	in 1884 this axe was in the possession of Hugh Gordon Lumsden of Clova; at that time this part of The Cabrach was in Aberdeenshire. In 1937 Capt Hugh P Lumsden of Auchindoir, Clova, presented to NMAS a coll mainly from Clova estates in Auchindoir and Premnay parishes, this axe labelled 'The Cabrach' – it was found in 1872. Probably the same as that ref. to in 1884. J gp E 11		

38	'Boyndie' Banff	unpublished	Inverness Museum	label gives '50' and purchased, no date
39–45	Colleonard Banff Banff	Appendix XII(a) no. 5	NMAS – DA 19-25	Appendix XII(a) no. 5. Axes found blades uppermost in a pot DA 19 – J gp E 01; DA 20 and 21 – J gp F; DA 22, 24 and 25 – J gp E 00; DA 23 – J gp E 11
46–53	Hill of Fortrie of Balnoon Inverkeithny Banff	Appendix XII(a) no. 6	one NMAS - DA 38; others unknown	Appendix XII(a) no. 6. J gp B 2
a	unknown, probably Moray	unpublished	Elgin Museum - 1953.24	apparently unfinished casting, presented to Museum by daughters of W E Watson in 1953
ь	unknown Banff	<i>PSAS</i> , xxi (1886–7), 288; <i>PPS</i> , iv (1938), 279–307	NMAS – DA 55	purchased by Museum in 1887 provenance unknown save for county <i>MH</i> type I ² . <i>J</i> gp F
х	Kinclune Towie Aberdeen	PSAS, XXII (1887-8), 369	perhaps still Banff Museum	given in ref as 'Kinclave, Gowie' but neither name traced in Banffshire. Kinclune, Towie (NJ 156136) seems likely. Coles tentatively identifies it with unlabelled axe in Museum

APPENDIX II
Halberds and Other Blades

Number	Find Spot	References	Present Location	Particulars
1	Muir of Sluie Edinkillie Moray	Arch, LXXXVI (1936), 246	NMAS – DJ 4	Appendix XII(a) no. 3. OR type 6 (no. 17). J gp E 00, copper
2	Assich Croy and Dalcross Nairn	Arch, LXXXVI (1936), 321; PSAS, LXXXIV (1939-40), 149, pl lvi, 2; DES (1963), 39	NMAS – DJ 36	Listed in Ó Ríordáin's as 'lands of Clavar (sic) and Cantray, Inverness' and in the Morven Inst, London. Presented to NMAS in 1939 by Alex Keiller, founder of Morven Inst, and entered as from 'Asslich', Inverness-shire and 'formerly in the possession of Miss May Davidson of Clava and Cantray, Inverness-shire'. However, donation notice in <i>PSAS</i> says from 'Asslich, near Drumnadrochit'. This would place it on the opp. side of L. Ness from the lands of Clava and Cantray. There is a Loch Aslaich W of Drumnadrochit, but find-spot almost certainly Assich, on lands of Clava and Cantray and prior to 1890 in Inverness-shire, thus agreeing with c 1887 discov. in that county. Ó Ríordáin's map places find on right side of L. Ness but too far S. OR type 6. J gp E 11, bronze
3	The Snab, Culbin Sands Dyke and Moy Moray	PSAS, xxv (1890-1), 503-4; TISSFC, v (1895-9), 122	Falconer Museum, Forres	not labelled in museum when visited by writer; identification by John Coles. Refs probably to this halberd
4-10 or 11	Auchingoul Inverkeithny Banff	Appendix XII(a) no. 7	four NMAS - DJ 37-40; three or four others unknown	Appendix XII(a) no. 7 OR type 6. All four of J gp E 11, copper
a, b	unknown probably North-East	unpublished	Banff Museum	unprovenanced halberds; as rest of Museum coll local, seems likely from North-East, possibly Banffshire

A Cross of Bishopmill, nr Elgin Spynie Moray

J Stuart, Sculptured Stones of Scotland (1867), II, xcvi; PSAS, XXII (1887-8), 342; Arch, LXXXVI (1936), 195-321; Childe 1946, 117 original in Elgin Museum – +1888.1; cast in NMAS DJ 43/DI 5

Bishopmill and Linksfield Limekilns in a cist 'shaped like a common coffin', 6 ft long, 3 ft wide in middle, c 1 ft at either end. In it was a quantity of 'black unctious earth' containing frags of a skin, apparently that of an ox from which the hair had been removed. and the knife, which was fragmentary. In Museum by 1888: label in 1958 says 'part of a spearhead found with lower jaw of a ruminant and portion of cow or horse hide (with hair on it) in a cist near Cross of Bishopmill', 1888 ref. noted rivet holes in butt but no other particulars and cast doubt on attrib. to Bishopmill, Stuart probably most correct as writing only 3 vrs after discovery but presence of 'lower jaw of a ruminant' likely. Ó Ríordáin lists it as a halberd, (no. 20) but R B K Stevenson (in conversation) thinks it is a knife - from remains length must orig. have been c 7 in and breadth c 2 in – small for a developed halberd

discovered in 1864 while ploughing between

B-E Culbin Sands
Dyke and Moy
Moray

PSAS, IV (1860-2), 377

formerly NMAS - BI 25, 150-3

NMAS Catalogue – 1892 notes in the coll of material from Culbin Sands 'part of a spearhead and parts of three lance-heads of bronze', now missing. Possibly 'lanceheads' were halberds as they were differentiated from the spearhead but not called daggers. In 1862 a 'small pointed plate of bronze resembling a knife blade 2½ in in length from the Culbin Sandhills' presented to Museum. Possibly a Class I razor from mould from Culbin Sands (cf Appendix IV no. 6)

APPENDIX III
Axes with Flanges, Midribs, and Incipient Midribs

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Number	Find Spot	References	Present Location	P articulars
1	Wester Golcantray Croy and Dalcross Nairn	Appendix XII(c) no. 1	NMAS – DC 128	Appendix XII(c) no. 1
2	nr Palace (Castle) of Spynie Spynie Moray	unpublished	Elgin Museum – 1875.3	came to Museum in 1875
3	nr The Manse St Andrews- Lhanbryd Moray	<i>PSAS</i> , LIV (1919–20), 149	NMAS - DA 80	found in 1904 N of Manse, purchased by Museum 1920
4	Auchindown, nr Dufftown Mortlach Banff	unpublished	Marischal College University of Aberdeen – 247/23	came to Museum in 1940 through the Callander Coll
a	unknown probably Moray	unpublished	Elgin Museum ~ 1943.1	came to Museum in 1943 from coll of Lord Provost Wilson and as exhibited (1960) is labelled 'From the Elgin district (precise locality unknown)'; even this uncertain
b	unknown probably North-East	unpublished	Banff Museum	

APPENDIX IV Moulds

21204	1140 8140				
Number	Find Spot	References	Present Location	Particulars	
1-2	Culbin Sands Dyke and Moy Moray	<i>PSAS</i> , xxv (1890–1), 494–5; xxxviii (1903–4), 489, figs 3 and 4, 492; <i>Sibrium</i> , iv (1958–9), 125	NMAS – CM 18 and 19	CM 18 has matrices for two flat axes on one face, one axe on the other, and a small groove on one side; CM 19, found near CM 18, is frag. with part of a flat axe matrix on each side	
3	Cutties' Hillock, Quarry Wood Spynie Moray	loc cit	Elgin Museum – 1945.2	one flat axe matrix, found inside 'Fort' (NJ 187631) partly sticking out of ground; came to Museum 1945	
4	Glenrinnes House, Dufftown Mortlach Banff	PSAS, LXIV (1929-30), 14; Sibrium, IV (1958-9), 125	NMAS – CM 33	three matrices on one face, two for flat axes, one for a curved axe-like obj; trace of one flat axe matrix on other face, matrix for bar on side; found in a drystone dyke c 200 yds from Glenrinnes House	
5	parish of Marnoch Banff	PSAS, XXII (1887–8), 369; Sibrium, IV (1958–9), 125	Banff Museum	flat axe matrix on one face, matrices for a ring and bar on other; in Museum by 1888	
6	Culbin Sands Dyke and Moy Moray	<i>PSAS</i> , xcvii (1963–4), 118, 137	NMAS – CM 21	Continuation Catalogue describes matrices for 2 different-sized leaf-shaped spearheads, purchased in 1893. Actually mould for a Class I razor probably half of a bivalve mould; a groove getting progressively thinner and shallower on other side. In the tang of the razor mould there is a small hole extending into mould a little way, and there is a similar hole in the groove on opposite side perhaps connected with an attachment	

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APPENDIX V
Cast-flanged Axes

Number	Find Spot	References	Present Location	P articulars
1	Newlands of Clunas Cawdor Nairn	PSAS, хсvп (1963-4), 136; хсvш (1964-6), 333	formerly Nairn Museum, now NMAS - DC 143	discovered 1942. C class III Premnay
2	Bothiewell Auldearn Nairn	<i>PSAS</i> , xcvii (1963–4), 136	Falconer Museum, Forres	Appendix XII(b) no. 1. C class III
3	East Grange Kinloss Moray	<i>PSAS</i> , ххц (1887-8), 342; хсуц (1963-4), 136	Elgin Museum - 1856.1	found in ditch digging, presented by Dr J G Innes of Forres. C class II Haddington
4	'Elgin' parish uncertain Moray	ibid, 136	BM - WG 1879	ex Greenwell Coll gift to him from J Pierpoint Morgan 1909. C class III Kirkless
5	Altonside Speymouth Moray	<i>PSAS</i> , xxxviii (1903–4), 11; xcvii (1963–4), 136	NMAS - DC 82	purchased 1903, Donation Notice gives findspot as 'Aultonside, Lhanbryd' but farm of this name is in Speymouth parish by less than ½ mile C class II Auchendrane
6	Witcheshillock Urquhart Moray	unpublished	Elgin Museum – 1914.2	
7	Dufftown Mortlach Banff	<i>PSAS</i> , xxi (1886–7), 8; xcvii (1963–4), 133	NMAS - DC 56	purchased 1886. C class III
8	probably that from Rathven parish, Banff; possibly that from 'Duffus', Moray	ibid, 134	Elgin Museum – probably 1860.1 possibly 1874.9	See Flat Axe 24 C class II
9	district around Longman, nr Macduff Gamrie Banff	PSAS, vi (1864–6), 46; Evans 1881, 59 PSAS, xcvii (1963–4), 134	NMAS ~ DC 35	donated to Museum 1865. Evans confuses it with another. C class II Auchendrane

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В	unknown Moray	ibid, 136	Hunterian Museum, Univ. of Glasgow – B.1951.1012	listed in British Association Card Catalogue as at Thornton Hall, Lanark and as prov. 'Unknown, Moray?'; now part of A Henderson Bishop Coll with presumably original label 'Morayshire Presented by Mrs Wilson'. C class III Kirkless
A	unknown probably North-East	ibid, 141	Banff Museum	C class III Kirkless
x	Brackley Petty Inverness	ibid, 136	BM - WG 1826	ex Greenwell Coll, gift to him from J Pierpoint Morgan 1909 C class III

APPENDIX VI

Socketed Axes

Number	Find Spot	References	Present Location	Particulars
1 and 2	Wester Golcantray Croy and Dalcross Nairn	Appendix XII(c) no. 1	NMAS – DE 114-15	Appendix XII(c) no. 1
3	'Auldearn' Nairn	<i>PSAS</i> , LXXII (1937–8), 165; XCIII (1959–60), 71	BM – WG 1979	ex Greenwell Coll, gift to him from J Pierpoint Morgan 1909, Bag-shaped, looped
4 and 5	Inshoch Auldearn	Appendix XII(c) no. 2	NMAS – DQ 76–7	Appendix XII(c) no. 2
6	'nr Darnaway' either Dyke and Moy or Edinkillie Moray	<i>PSAS</i> , xxxvi (1901–2), 629; xcm (1959–60), 70	NMAS – DE 66	not provenanced in catalogue, but year of purchase (1909), and dimensions identify it. Bag-shaped, looped
7	Cullerne House, Findhorn Kinloss Moray	Appendix XII(c) no. 3	NMAS – DQ 234	Appendix XII(c) no. 3
8	'nr Forres' parish uncertain	<i>PSAS</i> , LXXXI (1945-7), 196; XCIII (1959-60), 70	NMAS – DE 117	bought 1947; originally labelled 'Eanshill, ? Elginshire'. Bag-shaped variant, looped
9	Burgie Rafford Moray	PSAS, l (1915-16), 207; lxxii (1937-8), 165; xciii (1959-60), 70	formerly Falconer Museum, Forres	mentioned in Museum c 1913 and noted in 1938 but whether seen then or not uncertain; now missing
10	parish of Alves Moray	<i>PSAS</i> , LXXII (1937–8), 165; XCIII (1959–60), 70	BM - WG 1983	ex Greenwell Coll, gift to him from J Pierpoint Morgan 1909. Bag-shaped variant, looped
11	Auchtertyre Elgin Moray	Appendix XII(c) no. 4	NMAS – DQ 108	Appendix XII(c) no. 4. Rectangular-sectioned, looped
12	nr Palace (Castle) of Spynie Elgin Moray	PSAS, XII (1887–8), 342; LXXII (1937–8), 165; XCIII (1959–60), 71	Elgin Museum – 1868.9	original Donation List says 'Two Bronze Axes found near the Castle of Spynie', later list says 'Bronze Axes (two) one found near the Castle of Spynie, the other looped and socketed – Presented by Wm. Ferguson, Elgin' (the other axe is Appendix I no. 25). A now-lost label for a socketed axe (this one

the only one in Elgin) gives provenance as

				on site of railway near Spynie Castle. Perhaps this is the socketed axe ref. to in 1888, though it is implied that this was unlocalized. Bag-shaped, looped
13	'Elgin' parish uncertain Moray	<i>PSAS</i> , lxxii (1937–8), 165; xciii (1959–60), 70	BM ~ WG 1982	ex Greenwell Coll, gift to him from J Pierpoint Morgan 1909. Bag-shaped, looped
14	district of The Enzie, Bellie parish, Moray, or Rathven parish Banff	TNALSS, II, pt III (1896), 65; PSAS, XXXIII (1898–9), 56; XCIII (1959–60), 68	formerly Preshome Collection; St Mary's College, Blairs, Aberdeenshire	not mentioned in a survey of The Enzie of 1883 (TISSFC, II (1880-3), 284) so prob. found between 1883 and 1898, when in coll of Canon John James Kyles of Preshome, Clochan or else acquired by him between these dates. Preshome Coll went to St Mary's but now appears to be lost. Possibly that referred to in 1896; type of axe not stated, though a prior ref, to an axe known to be flat (Appendix I no. 36)
15	nr Tomintoul Kirkmichael Banff	loc cit	Banff Museum	faceted, looped

x PSAS, xcIII (1959-60), 68 socketed axe from Banffshire in Banff Mus: axe now identified with that from Devonshaw, Clackmannan-

shire (sic - Kinross-shire is probably meant) in PSAS, XXII (1887-8), 369 (info. J Coles).

APPENDIX VII Socketed Spearheads

Number	Find Spot	References	Present Location	Particulars
1 and 2	Inshoch Auldearn Nairn	Appendix XII(c) no. 2	NMAS - DQ 74-5	Appendix XII(c) no. 2. DQ 74 GB Class V; DQ 75 GB Class VA
3	Inshoch Wood Auldearn Nairn	Appendix XII(b) no. 2	Inverness Museum; on loan to NMAS since 1962, cat no. L 1962.124	Appendix XII(b), no. 2. Apparently burnt and sand-eroded, fragmentary and in last stages of disintegration. GB Class IV; C Class D
4	Culbin Sands Dyke and Moy Moray	<i>PSAS</i> , vii (1866–8), 396; xxv (1890–1), 504	formerly NMAS – BI 25, 150	fragmentary, presented along with 2 flint arrowheads by William Sclanders in 1868. Ref. to in 1891 as part of a 'large spearhead'; listed NMAS Catalogue 1892; now lost
5	'Dyke' Moray	<i>PSAS</i> , xcvii (1963–4), 143	Marischal College, Univ. of Aberdeen – C25 (formerly J G Callander Coll, Univ. of Glasgow)	perhaps from Culbin Sands and M'Kewen Coll. GB Class III; C Class C
6 and 7	Cullerne House, Findhorn Kinloss Moray	Appendix XII(c) no. 3	NMAS – DQ 231–2	Appendix XII(c) no. 3. Both GB Class V
8	Burghead Duffus Moray	<i>PSAS</i> , xxiv (1889–90), 146, 379; xxv (1890–1), 493–4; xciii (1959–60), 79	NMAS - DG 59	GB Class V
9	Hill of Roseisle Duffus Moray	Arch J, XIII (1856), 413; Catalogue of Antiquities, Works of Art and Historical Scottish Relics Exhibited in the Museum of the Archaeological Institute of Great Britain and Ireland 1856 (1859), 18; Evans 1881, 322–3; PSAS, XX (1885–6), 318; XXII (1887–8), 342; TNALSS, II, pt I (1893) 96; PSAS, XCIII (1959–60), 79; XCVII (1963–4), 143		found in 1850 while digging a well at Hill of Roseisle and presented to Museum in same year. Magnificent specimen, largest in Scotland (orig. c 19½ in), perfect save for last 0.4 in of point and slight damage to one edge below this, though illus of 1856 and 1859 show it whole. GB Class IVB; C Class F

10	nr Hopeman Duffus Moray	<i>PSAS</i> , XCIII (1959–60), 79; XCVII (1963–4), 143	formerly Albert Institute, Dundee (Dundee Museums and Art Galleries)	not found at Museum 1960, many of objects there said to have been sent to NMAS. GB Class IV; C Class D
11	parish of Alves Moray	<i>PSAS</i> , xxv (1890–1), 494; xcm (1959–60), 79; xcvn (1963–4), 143	formerly M'Kewen of Dyke Coll	found before 1891, 'small spear or lance-head with loops on the socket'. Just possibly same as no. 5 if parish name confused – Callander known to have acquired parts of M'Kewen Coll. GB Class III; C Class C
12 and 13	Auchtertyre Elgin Moray	Appendix XII(c) no. 4	NMAS - DQ 106-7	Appendix XII(c) no. 4. DQ 106 GB Class VA; DQ 107 GB Class V
14	Badentinan Speymouth Moray	PSAS, хххи (1897–8), 6; хсш (1959–60), 79	NMAS – DQ 70	purchased in 1897, orig. donation notice says found 'near Speymouth' (Speymouth is name of parish, not place), continuation catalogue says found at 'Badentinnan'. Found with part of shaft. GB Class VB
15	district of The Enzie, Bellie parish, Moray or Rathven parish Banff	TISSFC, II (1880–3), 284; PSAS, XXXIII (1898–9), 56; XCIII (1959–60), 77; DES 1962, 23–4	Preshome Collection; St Mary's College, Blairs, Aberdeenshire	a 'very fine' spearhead found some years previous to 1883 in The Enzie and in coll of Canon John James Kyles of Clochan, Preshome. 1898 ref. to presumably same spearhead. Preshome Coll went to St Mary's, there in 1960 (drawing supplied by Father F Thomson, info. from Father James Robertson of Preshome). probably GB Class V
16	Carlusk Boharm Banff	<i>PSAS</i> , xvi (1881–2), 409; xcii (1959–60), 77	NMAS – DG 31	GB Class IV; C Class D
17	nr Inverlochy, Strath Abhainn, Tomintoul Kirkmichael Banff	PSAS, LXXIII (1938–9), 333; хсш (1959–60), 76	NMAS – DG 103	found in River Abhainn. GB Class IV; C Class D

APPENDIX VII—continued

Socketed Spearheads—continued

Number	Find Spot	References	Present Location	Particulars
18	nr Banff <i>probably</i> Banff Banff	PSAS, XXII (1887–8), 369; XCIII (1959–60), 76	Banff Museum	in Museum by 1888.
a	unknown probably Moray	unpublished	formerly Elgin Museum	Donation book records 'bronze spearhead'.
x	unknown	<i>PSAS</i> , LIV (1919–20), 149; хсш (1959–60), 79; хсvп (1963–4), 144	NMAS – DG 80	Coles lists this '?nr Burghead' but acquisition note says provenance unknown; from Hugh Young of Burghead Coll. GB Class IIIA; C Class E

APPENDIX VIII Swords

Number	Find Spot	References	Present Location	Particulars
1	Sweethillock Alves Moray	PSAS, lxxii (1937–8), 173; xciii (1959–60), 84	NMAS – DL 58	found by George McCutcheon, probably 1934 – Continuation Catalogue says 1935 – 3 ft down, in fine sand at base of the moss c 5 yds from the well at Sweethillock (H B Mackintosh presented it to Museum in 1936). Erroneous provenance of Birkenhill in 1938 list.
2	Boars Moss Boyndie Banff	<i>PSAS</i> , хсш (1959–60), 83	Elgin Museum - 1945.1	found in Boars Moss in 1842; Ewart Park type
3	near Blairshinnoch probably Banff Banff	<i>PSAS</i> , XXII (1887–8), 369; LXXII (1937–8), 173; XCIII (1959–60), 83	Banff Museum	found before 1888
a and b	unknown possibly Banff	PSAS, LXXII (1937–8), 173	both Banff Museum	presumably donated after 1888 but before 1938. At present no info. on provenance though 1938 ref gives county as Banffshire. One of the two swords has modern soldering of breaks, evidence of a handle-covering in the form of different colouring. Both Ewart Park types

APPENDIX IX Armlets and Ornaments

Number	Find Spot	References	Present Location	Particulars
1-5	Sculptor's Cave, Covesea Drainie Moray	PSAS, LXV (1930-1), 181-4; Proudfoot 1955, 15-16; PSAS, XCIII (1959-60), 90	NMAS uncatalogued	1 of Proudfoot's type 1; 2 of type 2; 2 of type 2a; all of bronze (type 1 Irish, types 2 and 2a Covesea – Coles)
6–12	Auchtertyre Elgin Moray	Appendix XII(c) no. 4	NMAS – DQ 110–15 and one uncatalogued	1 of type 1 (uncat.); 4 of type 2 (DQ 110-12, DQ 115); 2 of type 2a (DQ 113-14); all bronze; Appendix XII (c) no. 4
	Green Cairn, Upper Dallachy Bellie Moray	J Grant and W Leslie, Survey of Moray (1798), 316–17; G Chambers Caledonia I (1807), 129; Anderson 1886, 63; 6 in OS Map (2nd ed 1905) Elginshire, IX, SW and SE; TNALSS, II, pt III (1896), 63; PSAS, XL (1905–6), 194	unknown	Found in peripheral deposit in an urn in a mound about 1 mile from shore on banks of Bellie river, removed before 1798; 'on shaking out the mould with which it was filled, a piece of polished gold appeared, in form like the handle of a vase; it was 3/10 of an inch thick, its ends about an inch assunder; on them the solder, of the appearance of silver, remained, which by the application of aquafortis was dissolved its value in bullion was about L.12 sterling'. Chalmers adds a few details – found 1794, 3 in diam, a little over \(\frac{1}{8} \) in thick, the Society of Antiquaries of Scotland had declined to buy it and it had been sold for 13 gns. Probably Proudfoot's type 1
14	Connage Rathven Banff	<i>PSAS</i> , IV (1860–2), 377; IX (1870–2), 436; LXV (1930–1), 184; XCIII (1959– 1960), 90	NMAS – DO 16	presented in 1862 by Lady Dick Lauder 'an oval bronze pennular ring or armlet terminating in slightly thickened extremities', diam $2\frac{1}{2}$ in, found in a peat moss at 'Connage, Banffshire' presumably the Connage in Rathven. Proudfoot's type 1
15–16	probably Banff	<i>PSAS</i> , XXII (1887–8), 369; XCIII (1959–60), 89	one Banff Museum, one formerly Banff Museum	two found before 1888, one now missing. Both Proudfoot's type 2, Covesea

APPENDIX IX—continued

Armlets and Ornaments—continued

Number	Find Spot	References	Present Location	Particulars
17	parish of Cromdale Moray or Inverness-shire	Wilson 1863, 460; PSAS, LVII (1922–3), 165; Proudfoot 1955, 15–16; PSAS, XCIII (1959–60), 91	unknown	found while cutting peats in the 'parish of Cromdale, Inverness-shire'; bdry changes of 1870 and 1890 make present county uncertain. Drawing sent to Wilson by Sir T Dick Lauder. Proudfoot's type 3c, gold
a	Bodibae The Cabrach Banff	PSAS, XVIII (1883-4), 326	unknown	in 1884 the Rev Alexander Gordon of London had 'a bronze penannular ring' found where 'there was an accumulation of burnt ashes indicative of human habitation'. Could be one of Proudfoot's types
x	Druidtemple (Leys) Inverness and Bona Inverness	Inverness Courier, 13th March 1851; Wilson 1863, 163; TISSFC, II (1880–3), 370; PSAS, XVIII (1883–4), 355	unknown	Original newspaper account not available, quoted differently by Wilson and others. Former says 'a funicular rod or torc of gold dug up within the great circle of Leys in 1824'; others say 'part of a twisted three-cornered torc of gold about 22 inches long and hooked at both ends' found in adjacent field to circle. Both say dug up by plough so probably nr rather than inside. Probably a bar torc

APPENDIX X

Ring Money

Number	Find Spot	References	Present Location	Particulars
1–10	Sculptor's Cave, Covesea Drainie Moray	PSAS, LXV (1930-1), 181-4	eight NMAS (no numbers) two Elgin Museum – both 1931.6	both those in Elgin partly covered in gold leaf; 6 of those in NMAS similarly and other two without (at least now)
11	Coire na Fuaraig Kirkmichael Banff	ibid, 181; V G Childe, Prehistory of Scotland, (1935), 163	BM - WG 23	provenance corrupted to 'Fuaraig Glen' and (in BM lists) 'Glen Cornafuarak'; on the Chabat nr the Lecht. The object was found on sand under 4 ft of peat and came to Greenwell Coll via J Pierpoint Morgan in 1909

APPENDIX XI

Miscellaneous Bronze Material

Find Spot	References	Present Location	Particulars
Mains of Auchenbadie Alvah Banff	PSAS, II (1854-7), 371; XL (1905-6), 167; 6 in OS Map (1st ed 1871), Banffshire, X	unknown	a 'bronze armlet similar to that from Belhelvie' nr this farm was found some years before 1857; 6 in map records discovery of 'bronze armour' at the site of a stone circle at this farm. Belhelvie torcs of Law Farm type, so presumably this is a bronze ribbon torc
Inshoch Wood Auldearn Nairn	Appendix XII(b) no. 2	NMAS – L 1962.123 NMAS – L 1962.122	Socketed hammer Anvil
Inshoch Auldearn Nairn	Appendix XII(c) no. 2	NMAS – DQ 73	Semi-tubular ring
Cullerne House Kinloss Moray	Appendix XII(c) no. 3	NMAS – DQ 235 NMAS – DQ 233	Razor (Class II) Curved socketed knife
Auchtertyre Elgin Moray	Appendix XII(c) no. 4	NMAS – DQ 109	Tin ring (four fragments)
Netherglen, Glen Rothes Rothes Moray	Appendix XII(a) no. 4	Elgin Museum – 1953.23	Penannular D-sectioned armlet
Law Farm, Wallfield Urquhart Moray	Appendix XII(b) no. 3	various	Ribbon torcs (one bronze, the others gold)
Hill of Fortrie of Balnoon Inverkeithney Banff	Appendix XII(c) no. 5	NMAS – DQ 100	Socketed gouge
nr Duff House, Banff Banff	Appendix XII(b) no. 4	NMAS - EQ 120-4	Penannular D-sectioned armlets and rings (gold)
Banff		NMAS - no number	prob. razor (two fragments)

APPENDIX XII

Hoards

1

(a) EARLY BRONZE AGE

BAREVAN, nr CAWDOR, CAWDOR, NAIRN NMAS - DQ 264-6

This hoard of two flat axes was found before Dec 1833, one axe on top of the other 'perhaps 14 in under the surface' on a small height almost due S of a lidless square stone cist. The original note¹ says 'near a small village in Nairnshire', but the place was later identified as being within the precincts of the old church of Barevan² at which time, 1923, the cist still survived. Megaw and Hardy note the axes³ but not the second reference; hoard noted by Callander⁴ and Scott⁵.

DQ 264 Flat axe $6\frac{5}{16}$ by $3\frac{5}{8}$ by $\frac{3}{8}$ in, decorated in the style of Megaw and Hardy's type Ia².

DQ 265 Flat axe $5\frac{7}{8}$ by $3\frac{9}{16}$ by $\frac{11}{32}$ in, undecorated and covered with thick patina.

¹ PSAS, LVI (1921-2), 169, 358-9.

4 PSAS, LVII (1922-3), 127.

² op cit, LVII (1922-3), 320.

⁵ PPS, xvii (1951), 75.

³ PPS, IV (1938), 279-307.

2 on or nr CULBIN SANDS, DYKE AND MOY, MORAY NMAS - DA 59, formerly M'KEWEN COLL

The two flat axes which make up this possible hoard were 'said to have been found together by a man working with the forester of the Estate'. One was acquired by NMAS in 1886^2 and appears in the 1892 Catalogue and subsequently as from 'nr Forres'; the other was in the collection of the Rev. J M'Kewen of Dyke in 1891. This latter was said to be of similar shape and size to that in NMAS, which is $3\frac{1}{2}$ in across and 6 in in length (this latter measurement is given in the second reference, but the first erroneously gives $6\frac{1}{2}$ in). The one in M'Kewen's collection had an imperfect cutting edge. It is possible that the one in M'Kewen's collection is the one from Kintessack which the Earl of Moray obtained when the M'Kewen Collection was sold (flat axe 12) but this cannot be proved.

¹ PSAS, XXI (1886-7), 9.

² op cit, xxv (1890-1), 503.

3 MUIR OF SLUIE? EDINKILLIE? MORAY NMAS - halberd DJ 4, axes DA 32-3

A cist uncovered on the Muir in March 1818 was found to contain 'two unusually large bronze celt-axes' and a 'bronze spearhead of the primitive type', and drawing and a description of the find was sent to the Society of Antiquaries of Scotland in that year by Sir Thomas Dick Lauder (these were apparently lost) and there are now no details of the circumstance of discovery beyond the fact that the objects were found in a cist.¹ The three items were presented to the Society of Antiquaries of Scotland in 1861 by Sir John Dick Lauder.² Anderson³ and Ó Riordáin⁴ doubted the association of the axes with the halberd, the latter with the support of Wheeler, who noted the different patination of the axes compared with the halberd, but there is no reason to doubt the association⁵ especially in view of the metal analysis carried out last century.6

The analyses, made of the surface metal of the axes, indicated a tin-enriched surface which Macadam, the analyst, felt was a deliberate tinning of the surface, though he admitted that a rusting out of the copper was a possibility. The figures he obtained were as follows: DA 32: 24·36% tin; 15·49% copper; 60·15% carbonate and hydrate of copper; DA 33: 32·78% tin; 18·14% copper; 49·08% carbonate and hydrate of copper.

- ¹ Wilson 1851, 254.
- ² PSAS, IV (1860-2), 187.
- ³ Anderson 1886, 163.

- 4 Arch, LXXXVI (1938), 202.
- ⁵ Invent Arch, GB 30; the NGR should be NJ 005521.
- 6 PSAS, IX (1870-2), 431-2.

4 NETHERGLEN, GLEN ROTHES; ROTHES, MORAY ELGIN MUSEUM – axe 1953.22, ring 1953.23

Both these objects came to the Museum from the collection of W E Watson: the axe was found in 1925, the ring in 1926, both on the farm of Netherglen. There is no specific evidence to show that these

two objects were associated; on the other hand, the possibility does exist and such an association would be perfectly acceptable as similar axes and rings occur in the Migdale Hoard.¹

1953.22 Axe, surviving length 4.7 in and 3.3 in across cutting edge.

1953.23 Armlet, formed of a bent D-sectioned rod, 0.35 in thick, diam. 2.8 in.

1 Invent Arch, GB.26.

5 COLLEONARD, BANFF, BANFF NMAS - DA 19-25

All seven flat axes were found in a pot during trenching in a field north of Colleonard farm and sloping towards the sea (nearly half-way between the farm and the main coastal road). The axes were tightly packed into the pot, which was protected on either side by a stone its own height. The association of the bronzes with the pot was not recorded when the objects were acquired by NMAS, and it thus remained forgotten until its recent republication, although the inside of the pot is still stained green from the axes. In the same field as the find, a number of stones 8 to 9 ft long were found lying in a circle, and were thought to be the remains of a standing stone circle.

Of the seven axes, two are represented only by fragments, one the blade half and the other the central portion. Of the five whole examples, three – DA 21, 22, and 24 – have punched rain decoration on part or all of both faces, and two – DA 19 and 20 – have broad shallow fluting on both faces. Of the fragmentary axes, DA 25 has the fluting on both faces, while DA 23 is undecorated (at least on its surviving part). The decorated examples thus all belong to Megaw and Hardy's Class I.³ The hoard is also mentioned by Evans⁴ and Anderson.⁵

- ¹ Banffshire Journal February 1857, 5.
- ² Invent Arch, GB 29.
- ³ PPS, IV (1938), 279-307.

- 4 Evans 1881, 56.
- ⁵ Anderson 1886, 166-7.

6 HILL OF FORTRIE OF BALNOON, INVERKEITHNY, BANFF unknown except for one in NMAS - DA 38

An unpublished source¹ records the discovery '18 months ago' (before February 1838) of eight flat axes, when one of seven 'curious eminences of a conical shape with marks of ditches round their bases' was opened. They were found in a heap, and while some were 'much oxidised', others were in a good state of preservation. They were described as being 'battle-axes of mixed metal'. In 1853 the same person who had written the above description donated one of these axes to NMAS.² The donation notice says that it was one of seven, and calls the find-spot 'Hill of Fortrie, Balnoon, Inverkeithing'. Scott³ says that the axes were found '2 miles S of village (of Inverkeithny?) on shoulder of hill of Fortrie of Balnoon'. Another reference to this hoard is Callander's paper on Scottish Bronze Age Hoards.⁴ See also Appendix XII(c) no. 5.

- DA 38 Flat axe of bronze with an apparently tinned surface which was analysed by Macadam.⁵ Although his figures included a proportion of the actual bronze underneath, they showed a large enough proportion of tin (35.84% with 64.16% copper) to suggest a deliberate coating of tin, though he did not entirely exclude the possibility of the tin being left by the copper rusting out. The axe, which has a damaged butt and a blunted blade, is 6 in long by 3½ in across the cutting edge.
 - Letter Book of the Perth Literary and Antiquarian Society - letter written February 1838 by a Mr Stuart, Advocate, Aberdeen.
 - ² PSAS, 1 (1851-4), 138.

- ³ PPS, XVII (1951), 75.
- 4 PSAS, LVII (1922-3), 127.
- ⁵ op cit, 1x (1870-2), 429-30.

7 AUCHINGOUL, INVERKEITHNY, BANFF NMAS - DJ 37-40 (3 or 4 others lost)

In a ploughed field on the low terrace of the Deveron about 15 ft above the stream on the farm of Mains of Auchingoul, $c \nmid 1$ mile SE of the steading, in the autumn of 1939, seven or eight halberds were found. 'They were picked up and placed on the wall of a fowl house, from which they gradually disappeared until only two were left.' Professor Childe and the farmer, Mr J A Smith, rediscovered two, 'one buried in the muck of the fowl house and the other being used as an earth for the wireless set'.¹ Presented to NMAS in 1942² and the hoard listed by Scott.³ All of Ó Ríordáin's type 6.⁴

- DJ 37 Halberd blade $10\frac{1}{8}$ in long and $3\frac{1}{2}$ in at its maximum breadth. The midrib is well defined and is $1\frac{1}{2}$ in broad at the top. On one side the line of one edge of the midrib is carried on as an engraved line to the end of the butt. The edges all round are badly broken, but it seems that this halberd never had any rivet holes. The blade is slightly asymmetric.
- DJ 38 Halberd blade $10\frac{11}{16}$ in in length and $4\frac{1}{16}$ in wide at the base. The midrib is well defined and measures $1\frac{3}{6}$ in in breadth at the top. This blade has five rivet holes, each being $c\frac{1}{4}$ in diameter. The three middle ones have been elongated by strain on the rivets, and the attachment mark of the handle is visible on the butt. The major part of the blade along one edge and part of the point are very badly damaged, but the remains of an engraved groove are visible on all sides. The asymmetry is slightly more obvious than on the previous example. This halberd, the only one of the survivors which had rivet holes, was tested for tin at the University of Edinburgh, but the results were negative.
- DJ 39 Halberd blade 11 in long and 3½ in broad at the base. The midrib, which is 1½ in in breadth at the top, is less well marked than on the others, but its asymmetry is as marked as on the previous one. The edges are slightly corroded. There is, across the butt, a vague line which might conceivably be an attachment mark, but in view of the fact that there are no rivet holes, and more importantly that the line goes the wrong way in relation to the asymmetry of the midrib, this is unlikely.
- DJ 40 This halberd blade is the biggest and most elaborate of the survivors. It is $11\frac{1}{2}$ in long, and though one side of the base is a little broken, it was probably $3\frac{7}{8}$ broad when complete. The midrib stands out more strongly than any of the others, and its asymmetry starts farther down than on the other examples. The highest part of the midrib has four engraved parallel lines running to the point, and the edges are decorated with double grooves. The butt is damaged, but it never seems to have had rivets.
 - ¹ PSAS, LXXV (1940-1), 208-9.

³ PPS, XVII (1951), 75.

² op cit, LXXVI (1941-2), 133.

4 Arch, LXXXVI (1936), 246.

(b) MIDDLE BRONZE AGE

1 BOTHIEWELL, AULDEARN, NAIRN FALCONER MUSEUM, FORRES (cast-flanged axe), formerly FALCONER MUSEUM (rings)

The circumstances of discovery of this hoard are unknown: it consisted of a cast-flanged axe and three or four rings coupled together, now lost. The axe is 5·3 in long, 1·7 in across the cutting face, and $1\frac{1}{8}$ in across the flanges. There is very little effective grip for hafting. No details of the rings. Listed by Coles.

- ¹ PSAS, xcvii (1963-4), 154.
- 2 INSHOCH WOOD, AULDEARN, NAIRN formerly INVERNESS MUSEUM, on loan NMAS L 1962.122-4

This hoard was found c 1945 by a Canadian soldier who donated it to Inverness Museum. Found on the edge of Inshoch Wood near Woodend (NGR c NH 947579). Former label in Inverness Museum 'Brodie, Morayshire'. It comprised pieces of a socketed spearhead in the last stages of decay, a socketed hammer with two sides missing, and an anvil with two projections. Casts of the last two objects were presented to NMAS by the Director of the Royal Scottish Museum.²

- L 1962.124 Socketed spearhead represented by the shaft, 5 in long, with one loop surviving, and the vestiges of the other, and also of the blade. A small additional piece of the shaft 2 in long also survives. The original overall length must have been $c \ 8\frac{1}{2}$ in.
- L 1962.123 Socketed hammer, $2\frac{1}{2}$ in in surviving length with a socket measuring originally 0.6 by c 0.9 in and a face measuring 0.4 by 0.6 in. The head is solid for 0.7 in. (Cast DO 47 in NMAS)
- L 1962.122 Anvil, with a central block measuring $1\frac{1}{2}$ in by $1\frac{1}{2}$ in and two projections, one conical, $1\frac{7}{20}$ in long, the other prismatic, with a maximum surviving length of 1·1 in. (Cast DO 48 in NMAS)

The results of a spectographic analysis of the anvil were recorded as follows: copper 70%; tin 30%; iron 0.5%; lead 0.1%; ?nickel 0.05%. The total of this comes to over 100%, but the low lead percentage

places this anvil in the Group I bronzes, and thus technically in MBA.³ Coles ^{4, 5} dates this hoard to his Glentrool phase (MBA 3), 1100-900/800 BC.

1 PSAS, LXXX (1945-6), 8-11.

4 PSAS, xciii (1959-60), 122-3; 79, 87.

² op cit, LXXIX (1944-5), 180.

⁵ op cit, xcvii (1963-4), 154; 143, 147.

3 PPS, xxv (1959), 188-208.

3 LAW FARM, WALLFIELD, URQUHART, MORAY various museums Hoard of ribbon torcs.

Editor's note: this hoard has now been fully published by J M Coles in Antiq J, XLVIII (1969). 163-74.

4 nr DUFF HOUSE, BANFF, BANFF NMAS - EQ 120-5

The discovery of this hoard was communicated to the Society of Antiquaries of Scotland on the 22nd June 1828, but the communication was subsequently lost and the hopeful remarks about the writer communicating did not, apparently, materialise. The items were given as 2 gold bracelets, a 'nose ring', and 2 earrings all of gold in a 'sepulchral urn', but the etching with the report adds the bronze fragments, a quantity of burnt bones and a stone cover, on which, if the etching is any guide, the pot lay inverted. The urn was 6 in deep. The hoard was presented to the Museum four years later. Wilson³ asserted that it had been found in a cist, and that the weight of the two armlets was respectively 1 oz 5 dwts 14 grs and 1 oz 14 grs. The next mention⁴ refers to the pot as 'perhaps the plainest and rudest in the collection [in the Museum]', notes that its diameter is 5½ in, and that the gold showed no signs of burning. It should be noted that none of these references, nor the Catalogue, and only one of the labels, mention Duff House as being near the place of discovery: this has been implied from the fact that the discovery was made on the estate of the then Earl of Fife, Duff House, now an hotel. Anderson⁵ says they were found near Duff House.

- EQ 120 Penannular armlet of a D-sectioned rod of gold with plain terminals; diam. 2\frac{5}{4} in, weight 1 oz 14 grs.
- EQ 121 Penannular armlet of gold similar to the above, but with very slightly expanded terminals; weight 1 oz 5 dwts 14 grs.
- EQ 122 Penannular ring of gold, oval in shape, $\frac{7}{4}$ in by $\frac{1}{2}$ in, made of a single rod of oval section,
- EQ 123 Penannular ring of gold nearly circular in shape, diam. 9 in, formed of three round-sectioned rods joined together.
- EQ 124 Penannular ring of gold similar to EQ 123, but $\frac{7}{16}$ in in diam., and formed of six round-sectioned rods joined together.

No Number Two fragments of thin bronze, one of which exhibits part of a rivet hole.

EQ 125 An urn completely unornamented, made of coarse clay with much grit, having a flat rim. As Coles says,⁶ nothing in this Hoard need be LBA; if the armlets and bracelets are of Irish gold and the urn of Covesea ware, then the Hoard would probably date from LBA 3; on the other hand, if the bronze fragments were of a Class I razor⁷ and the urn a cinerary urn, the hoard would be MBA, a dating he subsequently favours, placing it in his Glentrool phase, (MBA 3), 1100-900/800 BC.⁸ Abercromby⁹ listed it as a Food Vessel. The hoard is mentioned by Callander.¹⁰

- ¹ Arch Scot, IV (1857), 298, pl xII.
- 2 loc cit.
- ³ D Wilson, Prehistoric Annals of Scotland, (I) (1863), 331-2; 452-3.
- 4 PSAS, XVII (1882-3), 446-7.
- ⁵ Anderson 1886, 61-2.

- 6 J Coles, The Late Bronze Age in Scotland (1959), PhD thesis, University of Edinburgh, Appendix ii.
- ⁷ PPS, XII (1946), 121-41.
- 8 PSAS, xcvn (1963-4), 150.
- 9 J Abercromby, A Study of the Bronze Age Pottery of Great Britain and Ireland, I (1912), no. 277.
- 10 PSAS, LVII (1922-3), 164.

(c) LATE BRONZE AGE

1 WESTER GOLCANTRAY, CROY AND DALCROSS, NAIRN NMAS - DE 114-15, DC 128

In 1939 Alexander Keiller presented to NMAS several items, 1, 2 all of which had come from Miss May Davidson of Clava and Cantray, including two socketed axes and a flanged axe. All three came

from 'Wester Golcantry', having been found in 1887 'in the Taylor's Garden'. While it is not specifically stated that they were all found together, it is almost certain that in fact they were, though Coles³ lists the association as doubtful (with the county as Inverness-shire, as it was pre-1890).

- DE 114 Socketed axe with sub-rectangular section; 3 in long, 1.4 in across the mouth, and 1.8 in across the cutting edge. There is a long, thin, faint tongue down the middle of each socket face.
- DE 115 Socketed axe represented by only a part, but has a double moulding and sub-rectangular section. A shell representing part of one side and part of the bottom with the loop, survives with a maximum length of 2.9 in. Diameters must have been c $1\frac{1}{2}$ in.
- DC 128 Flanged axe decorated in the style of Megaw and Hardy's type IIIc.⁴ It is $4\frac{1}{2}$ in long, 2.7 in across the cutting face and 0.6 in at its thickest. The blade is corroded, and so are the sides, the decoration being visible for only half of one side. It was donated after Megaw and Hardy's paper, and no one appears to have noted hitherto the decoration.
 - ¹ *PSAS*, LXXXIV (1939-40), 149.

3 op cit, xcm (1959-60), 134, 71.

² op cit, xcv (1961-2), 306-7.

4 PPS, rv (1938), 279-307.

2 INSHOCH WOOD, AULDEARN, NAIRN NMAS - DQ 73-7

This hoard was presented to NMAS by the Rev John Grant in 1782. It was found¹ 'a few years ago' in a moss at Inshoch, three miles east of Nairn. '... I take the two sharp pointed pieces of copper to be the heads of Roman hastae or spears...'. Other references ²⁻⁶. The hoard consists of two socketed spearheads, two socketed axes, and a semi-tubular ring (this last Grant opined was a 'cross stop' where the metal head of the pilum joined the wooden shaft).

- DQ 73 A semi-tubular ring external diam 2.7 in.
- DQ 74 Socketed spearhead, leaf-shaped blade of 2 in maximum original width. Its surviving length is $8\frac{1}{2}$ in, it being broken near the point. There are two rivet holes in the socket.
- DQ 75 Socketed spearhead, leaf-shaped blade of 2 in maximum width, and bevelled edges. It is 9·1 in long, and slight mouldings at the side of the midrib extend down to enclose the rivet holes.
- DQ 76 Socketed axe, 3½ in long with a slightly everted mouth, a moulding at the lip with two pairs of thin mouldings below, one loop, an oval body section and recurved cutting face.
- DQ 77 Socketed axe, $2\frac{1}{2}$ in long with a moulding at the sub-rectangular mouth, a thinner moulding just above the single loop top, from which the sub-hexagonal sectioned body descends to a wide cutting face.

Coles 6 dates this hoard from the late eighth century BC.

- 1 Arch Scot, 1 (1792), 241.
- ² PSAS, xvi (1881–2), 31.
- ³ Anderson 1886, 153.

- 4 PSAS, LVII (1922-3), 144.
- ⁵ op cit, LXXII (1937-8), 165.
- 6 op cit, xcm (1959-60), 122; 71, 79.

3 CULLERNE HOUSE, KINLOSS, MORAY NMAS - DQ 231-5

This hoard of bronze objects was found in 1894 near the S margin of the sandhills formerly existing to the S of the village of Findhorn, and a short distance N of Cullerne House. They were discovered by workmen digging a drain in connection with the water supply to the House, about 150 yds NNE of the House. The site is c 30 ft above sea-level, and the objects were found in a dark layer, presumably an old land surface which was less than 2 ft below the present surface. To judge from a neighbouring gully, this dark layer was probably c 5 ft above the shingle of what must have been a former raised beach. Both this 5 ft and the 2 ft above the dark layer were of sand. The objects were in the collection of the Rev J M'Kewen of Dyke, and following his death in 1919 were purchased at the sale of this Collection by A Henderson Bishop, who presented them to the National Museum the same year. Other references c-8. The hoard consists of two socketed spearheads, a curved socketed blade, a socketed axe, and a tanged bifid razor.

DQ 231 Socketed spearhead, with leaf-shaped blade widely bevelled, $1\frac{3}{8}$ in maximum breadth. It is $7\frac{3}{4}$ in in extreme length, the socket being broken below the blade and at the extreme end. There are two rivet holes in the socket.

- Socketed spearhead of the same form, the blade 11 in maximum breadth and widely bevelled, and the overall length $5\frac{1}{8}$ in. The socket is imperfect and one side of the blade is damaged, but overall it is in a good state of preservation. There are two rivet holes in the socket.
- DQ 233 Curved socketed blade, $1\frac{1}{8}$ in in maximum breadth and $4\frac{1}{16}$ in in length following the curve of the blade. The socket, which does not extend into the blade, is imperfect on one side, but the opposite side has, on the same plane as the blade, a small hole, presumably for attachment purposes. The midrib on the inside of the curve of the blade is thickened.
- DO 234 Socketed axe, $3\frac{3}{8}$ in long, with a moulding and sub-rectangular mouth. The body is hexagonal in section and widens to a recurved cutting edge, $2\frac{5}{16}$ in in maximum width across the face. The single loop is placed well down the body.
- Bifid Razor of Class IIB7 with a maximum surviving breadth of 13 in and a total length of $2\frac{3}{4}$ in. It is in a very poor state of preservation, but is notched at the top and perforated. Coles7 dates this hoard from about 700 BC.
 - ¹ PSAS, LIV (1919-20), 13, 51, 124-31.
 - ² TISSFC, v (1895-9), 123.
 - ³ PSAS, LVII (1922-3), 144.
 - 4 op cit, LXXII (1937-8), 165.
 - 5 PPS, XII (1946), 121-41.
 - 6 PSAS, XCIII (1959-60), 121; 70, 79, 87, 88.
- 7 J Coles, The Late Bronze Age in Scotland (1959) (unpublished PhD thesis, University of Edinburgh), 128, using Hawkes' recent sub-division of C M Piggott's definition of Class II.
- 8 TNALSS, 11, pt 111 (1896), 53.

AUCHTERTYRE, ELGIN, MORAY NMAS - DQ 106-15

The objects in this hoard were found in April 1868 in 'a mossy field' on the S side of the farm of Achtertyre (sic) on part of what was then the farm of Wester Achtertyre, 'about halfway between the Manse of Birnie and the Priory of Pluscardin (sic)'. The particular area was known as 'Tammiroo' – the Tom Ruadh (the Red Knoll) of the 6 in OS Map - which marks the site of the find. It is recorded that there was no cairn or mound, and that the objects had presumably been deposited or dropped in cumulo when the place was literally a moss.² The objects were donated to NMAS in 1873.³

An analysis of the fragments of tin gave the following result: tin 76.66%; copper nil; lead 21.34%. This, therefore, constituted a solder which would fuse at c 365°F. (It was noted that the 'sealed solder' of the present day plumber was made of one part tin to two of lead and fused at 441°F.) Macadam, the analyst, suggested it was for coating or tinning bronze implements.⁴ Other references.⁵⁻⁸ The hoard consists of two socketed spearheads, a socketed axe, fragments of a ring of tin, and seven armlets, or parts of armlets, one of Proudfoot's type 1, four of his type 2, and two of his type 2a.

- DQ 106 Socketed spearhead, 11½ in long with a leaf-shaped blade, bevelled, and an original maximum width of $2\frac{1}{2}$ in. Approximately the top 3 in are broken off, but survive, and the lower part of one blade edge is missing. The angular midrib has a beading, and there is also a beading along the socket sides to enclose the rivet holes which are damaged.
- DQ 107 Socketed spearhead of the same form with an original length of 8½ in and an original maximum width of c 1.7 in. The socket has been broken off at the base of the blade, though most of the socket survives. The lower half of both blade edges, which are bevelled, are damaged, and there is a small flaw in the point.
- Socketed axe, 3\frac{1}{6} in in surviving length and 1.4 in in surviving blade breadth. There is an everted moulded mouth, with a slighter moulding below, and the section is oval. The blade is almost entirely broken away, but the original length and breadth across the cutting face must have been c $3\frac{1}{2}$ in and $1\frac{1}{2}$ in respectively.
- DQ 109 Four pieces of a tin ring.
- DQ 110 Penannular armlet, 31 in diameter, made of a D-sectioned rod with outward expanding terminals.
- DQ 111 Penannular armlet, like DQ 110.
- DQ 112 Penannular armlet, like DQ 110, but 33 in diameter, and damaged.
- DQ 113 Penannular armlet, like DQ 110, but 23 in diameter and transverse grooves at the terminals.

DQ 114 Penannular armlet, like DQ 113, but 27 in diameter and damaged.

DO 115 Penannular armlet, like DQ 110, but damaged.

Uncatalogued: penannular armlet, fragments of a D-sectioned rod.

Coles¹⁰ dates this hoard to the Covesea phase, from 700 BC.

- 1 6 in OS Map (2nd ed 1906), Elginshire, XII SW.
- ² PSAS, IX (1870-2), 435-43.
- ³ op cit, x (1872-4), 461.
- 4 op cit, IX (1870-2), 438.41.
- ⁵ Evans 1881, 136, 315, 382, 468.

- 6 Anderson 1886, 146-7.
- ⁷ PSAS, LVII (1922-3), 144-5.
- 8 op cit, LXXII (1937-8), 165.
- 9 Proudfoot 1955, 15-16.
- 10 PSAS, XCIII (1959-60), 120-1; 70, 79, 90.

5 HILL OF FORTRIE OF BALNOON, INVERKEITHNY, BANFF NMAS - DQ 99-102

The objects in this hoard were found when digging into a cairn on the Hill of Fortrie of Balnoon, and were presented to the NMAS in 1853. As the donor of these objects, a Mr Stuart, Advocate, of Aberdeen, donated at the same time the sole surviving flat axe of the EBA hoard, Appendix XII(a) no. 6, it is possible that the cairn in which the LBA objects listed below were found was, in fact, another of the seven 'curious eminences'. The hoard consists of a bronze button, a faultily cast socket of some implement, possibly a gouge, a semi-tubular ring, and one of the terminal fragments of a penannular object.

- DQ 99 A metal button $1\frac{1}{16}$ in diameter, with a small knob and three concentric mouldings on the obverse. The reverse is plain, except for a boss underneath the innermost moulding, and two loops.
- DQ 100 Fragment of the end of a socketed implement $1\frac{1}{2}$ in in surviving length, slightly sub-circular in section, and prominent seams. The casting is faulty; the core having been apparently placed asymmetrically in the mould, possibly the socket of a gouge.
- DQ 101 Semi-tubular ring $1\frac{1}{2}$ in in diameter. This has not been analysed, but has a distinctly tinny appearance.
- DQ 102 Fragment of a penannular object 2 in long, made from a flattened rod with a squared off terminal, which has a grooved decoration of lines and criss-crosses.

Coles³ dates this to probably from the late eighth century BC.

1 PSAS, 1 (1851-4), 138.

- ³ PSAS, xCIII (1959-60), 107.
- ² Letter Book of the Perth Literary and Antiquarian Society – letter written February 1838 by a Mr Stuart, Advocate, Aberdeen.