

English migrants in the Hebrides: ‘Atlantic Second B’ revisited

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ABSTRACT

An influx of people from southern England or north-western France into the Hebrides in the first century BC is sometimes claimed as a major factor in the local Iron Age and in the evolution of the broch. An examination of the various artefacts used to demonstrate this suggests that there is no evidence for the sudden introduction of new artefact types into the area at the appropriate time. Further work is required on the artefacts and monuments of the area and in particular independently dated sites and type series are badly needed.

INTRODUCTION

It is my contention that the theory of a ‘South Western 2nd B invasion’ has had and continues to have a distorting effect on our understanding of the Scottish Iron Age.¹ It not merely provides a *deus ex machina* for architects and overlords at the inception of the broch but it seriously distorts the chronological evidence of Hebridean artefacts. The desire to make a connection with Wessex and Brittany forces interpretation of the evidence in certain directions and has required the reinterpretation of stratigraphy and rejection of associations in a way analogous to the distorting effect of pre-radiocarbon links between European and Near Eastern chronologies (Renfrew 1973, 15–108).

The question of these connections with Wessex was reviewed in 1970 and 1971 by D V Clarke in two papers where he challenged some of the evidence for south-western contacts and posed theoretical objections to the interpretation of exotic items as evidence of invasion (Clarke 1970 and 1971). The decline of the invasion hypothesis in British archaeology (eg Clark 1966) did of course make a Hebridean migration inherently unfashionable. Thus Cunliffe cites the evidence for southern connections but prefers trade and other forms of contact to folk movement (1978, 124). However, the most fully advanced case for migrants from Wessex has not been rebutted (MacKie 1971) and a recent textbook argues that it is difficult convincingly to repudiate the hypothesis of migrants arriving from the Wessex–Somerset area in the first century BC (Ralston 1979, 472–4).

Unpopular though they may be, invasions and migrations do take, and have taken, place in the past. They are historically documented throughout the world. However, as Collis has pointed out, the archaeological evidence for even well-documented incursions is often very slight (1977, 1) – another case in point being the supposed Dalriadic migration into Scotland c 500 AD. Some archaeologists would respond by arguing that such particularist interpretations are not the proper domain of archaeology. But for those for whom archaeology is an historical discipline such questions cannot be

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merely shrugged away. This does not mean that we must return to the invasion mania of previous decades but population movement should be considered as a genuine social process and a problem for archaeology.

Although I would argue that migrations are a legitimate concern it would still be possible to follow Clarke in dismissing the Wessex migrant thesis on the grounds that exotic items can be explained by other mechanisms. However it seems to me that the whole package of supposed intrusive items could seem quite convincing and that therefore the evidence warrants full consideration even though Clarke has cast serious doubts on some aspects of the hypothesis in previous papers (1970 and 1971; see MacKie 1971, 66–9 and 1974, 102–03 for the rejoinder).

If we are to recognize an intrusive element in the Hebridean Iron Age we might expect to see objects and structures foreign to the area arriving over a short time span. These would have to be traceable to a source area at the appropriate date. In order to recognize a migration rather than trade or other forms of exchange we might hope to see disruption of pre-existing settlements and changes both in the patterning of artefacts on sites and of sites within the landscape. The presence of new burial rites would be another useful indicator. Some of these indicators are not available. We know almost nothing of burial rites in the area and have few sites attributed to the ‘pre-migration’ period. Nevertheless it is claimed that a ‘package’ of exotic items and influences arrives in the Hebrides with immigrants who act as a catalyst in the emergence of the broch.

Let us consider that evidence and the development of the ‘English’² migrants hypothesis over the last 50 years. Gordon Childe seems to have been the first to have argued for an influx into the Hebrides from south-west England as a key factor in the Iron Age of the north (1935, 238–49). He viewed the small stone forts of the area – brochs and duns – as evidence of a conquering aristocracy imposing themselves by force on a native population. In support of this interpretation he adduced vague architectural parallels with Irish and Cornish sites and closer parallels with bone ‘weaving’ implements and other bone objects. He rejected any comparison between south-western pottery, at sites such as Glastonbury, and the Hebridean wares but saw certain simple Hebridean motifs as paralleled on pottery from All Cannings Cross. Childe restated this view in 1940 when he argued that conquerors of ‘South-Western B’ traditions had founded the broch culture, the evidence again being the presence of ‘the whole specialised textile equipment of the Glastonbury culture’. This led him to conclude that

‘they presumably brought the tradition of using these with them, and so must have arrived accompanied by their wives’ (Childe 1940, 247).

Again he rejected comparisons with pottery other than a few decorated pieces. The many differences between the Hebrides and the south-west were also summarized and explained: ‘all the refinements of South-Western La Tène culture seem to have been jettisoned on the voyage’ (*ibid*, 248). Finally in 1946 he again used the textile appliances to argue for ‘a substantial contingent of immigrants of both sexes from south-western England’ (Childe 1946, 129). This interpretation was in tune with his theoretical position as a moderate diffusionist as is apparent in his books of this period. Even with his emphasis on continuity in *Scotland before the Scots* many changes were still explained in terms of invasion and diffusion (Childe 1946).

It was Lindsay Scott who further developed this thesis, arguing for a tribal migration from the ‘South-Western Cultures’ – either south-west England or north-west France – to establish Gallo-British colonies in the Hebrides in the late first century BC (Scott 1948). Scott believed that not only Hebridean bonework but also pottery could be shown to derive from the ‘Iron Age B’ cultures of those areas, though on balance he argued that the colonists probably came from England (*ibid*, 60, 65). From there too wheelhouses and brochs were to be derived since he saw them merely as

specialized stone adaptations of the timber round houses of the south. This view, though backed by an impressive analysis of the pottery from the Cletraval wheelhouse, was not, however, unchallenged. T C Lethbridge rejected the pottery comparisons and saw much more resemblance to that of early Iron Age pottery on eastern English sites such as Scarborough and West Harling, though he believed that the two groups of pottery should be dated at least 400 years apart (1952, 190–2). This was to be explained by a much earlier common origin in north-west Europe prior to a period of migration and separate development.

In 1955 Stuart Piggott argued for various Iron-Age immigrations into Scotland. Some reached southern Scotland from southern England bringing ‘fortifications, fine metal-work, weapons and chariot gear’ (Piggott 1955, 58). Some reached eastern Scotland with vitrified forts. Others reached the Western Isles ‘from regions which probably included north-west England and possibly west France’ (*ibid*, 59). The evidence of pottery, weaving techniques and house-types was taken to imply a more complete migration than some parts of Scotland ‘with entire families taking the road to the Isles’ (*ibid*, 59). Piggott dismissed the links with southern England on the grounds that the pottery was too dissimilar to Scottish types and hinted at a western French migration which acquired the appropriate weaving equipment in north-west England before setting off again for western and northern Scotland when the Romans conquered Brigantia (*ibid*, 60). Piggott’s view that the Scottish Iron Age effectively began with immigrants in the first century BC (1955, 58) was radically superseded by subsequent dating evidence. The total dependence of the interpretation of artefacts and innovations on immigrants likewise ceased to be acceptable (cf Harding 1982, 2–3).

Little seems to have been added to these views until 1961 when Charles Thomas advanced the theory that the ‘Iron Age B’ element in the Hebrides came from eastern England – ‘Eastern Second B’ – rather than the south-west, though his reasons for advancing an eastern origin seem no stronger than those he rejected for the south-west (Thomas 1961, 16–20).

However, the modern debate on English migrants was really begun, or perhaps more properly elaborated, by Dr Euan MacKie. In a series of papers since the early 1960s MacKie has developed theories for the evolution of the broch in north-western Scotland and argued for the role and significance of south-western elements in that process. In addition to ‘Iron Age B’ migrants MacKie believed he could recognize ‘Iron Age A’ immigrants. In his discussion of pottery from Balevullin, MacKie compares one vessel to eastern and southern English material from sites such as Scarborough, Staple Howe, West Harling, Fengate and All Cannings Cross (1963; 1971, 46). These ‘Iron Age A’ elements were also cited at Dun Mor Vaul on Tiree (1971, 46) and in the Northern Isles and were regarded as a significant element in the Iron-Age population of the islands (1965a, 95–8).

In 1965 MacKie published his first major analysis of the ‘broch and wheelhouse building cultures’. There he argued for eastern English influence and some sort of connection between Hebridean pottery and that of south, south-western or eastern English ‘Iron Age B’ pottery (1965a, 132). In a number of papers published throughout the 1960s MacKie touched on the foreign elements in the Hebrides and the role they may have played in the evolution of the broch (see bibliography in Megaw & Simpson 1979). But in 1971 in a paper in *Glasgow Archaeological Journal* his case was most fully spelt out. A whole series of items: pottery, glass beads, spiral rings, bone combs, bone dice, querns, crucibles, ‘Woodbury’ farmsteads and guard cells, were all argued as evidence of Wessex immigrants stimulating the evolution of the broch. In the course of this he rejected Thomas’s eastern connection and criticised Scott’s interpretation of the Cletraval pottery and its links to Glastonbury.

By the time this full argument was published MacKie’s interpretation was already under attack. Taking MacKie’s earlier discussion of this idea (1969), Clarke challenged specific aspects of some of the material evidence quoted, and more generally criticized the explanation of exotic items as indicators of invasions (Clarke 1970; 1971). This was immediately rebutted by MacKie who argued

that Clarke's arguments were factually unsound and failed to explain the more detailed case he put in his 1971 paper (MacKie 1971, 66–9). With the publication of his excavation of Dun Mor Vaul in 1974 he elaborated his reasons for believing that a refugee Wessex 'Iron Age B' ruling class with families, warriors and craftsmen was the best explanation of the evidence (1974, 101–103). And in 1975 he again argued for the arrival of a 'few energetic and influential persons who stimulated the onset of broch building' (1975, 88–90).

In rejecting Clarke's criticisms he argued that his different items of evidence hung together in such a way as to support the whole conclusion and that criticism could not merely be levelled at each item separately. Since then the argument has simmered. Cunliffe summarizes both cases, though he indicates that the anti-invasion hypothesis has more support (1978, 124). The most recent textbook seems to support MacKie's proposition though doubting that the immigrants were important in the genesis of the broch (Ralston 1979, 470–4). In 1980 Alcock dismissed any claimed link between southern and Hebridean ceramics, rejected the distributions of 'trinkets' as evidence of folk-movement by analogy with Early Historic distributions and concluded that there was no evidence to show that the 'broch-wheelhouse culture of the peripheral Proto-Picts' was other than autochthonous (1980, 69–70). In a debate at the Scottish Archaeological Forum in 1983 Harding tried to revive French Urnfield invaders (cf Hamilton 1968, 34, 91–2) while MacKie appeared wary of talking about migration at all but cited precise parallels for 'memento pots' as a strong indicator of direct contact and probably of genuine influx. Finally in 1983 MacKie restated his case for external influence in the west and north of Scotland and posited various testable hypotheses which he argued could be drawn from his thesis about the evolution of the broch in the Hebrides. In this brief account, however, he seems to have reverted to Scott's Gallo-British migrants and argues that people from north-west France, the Veneti, are involved in this influx into the Hebrides, ie

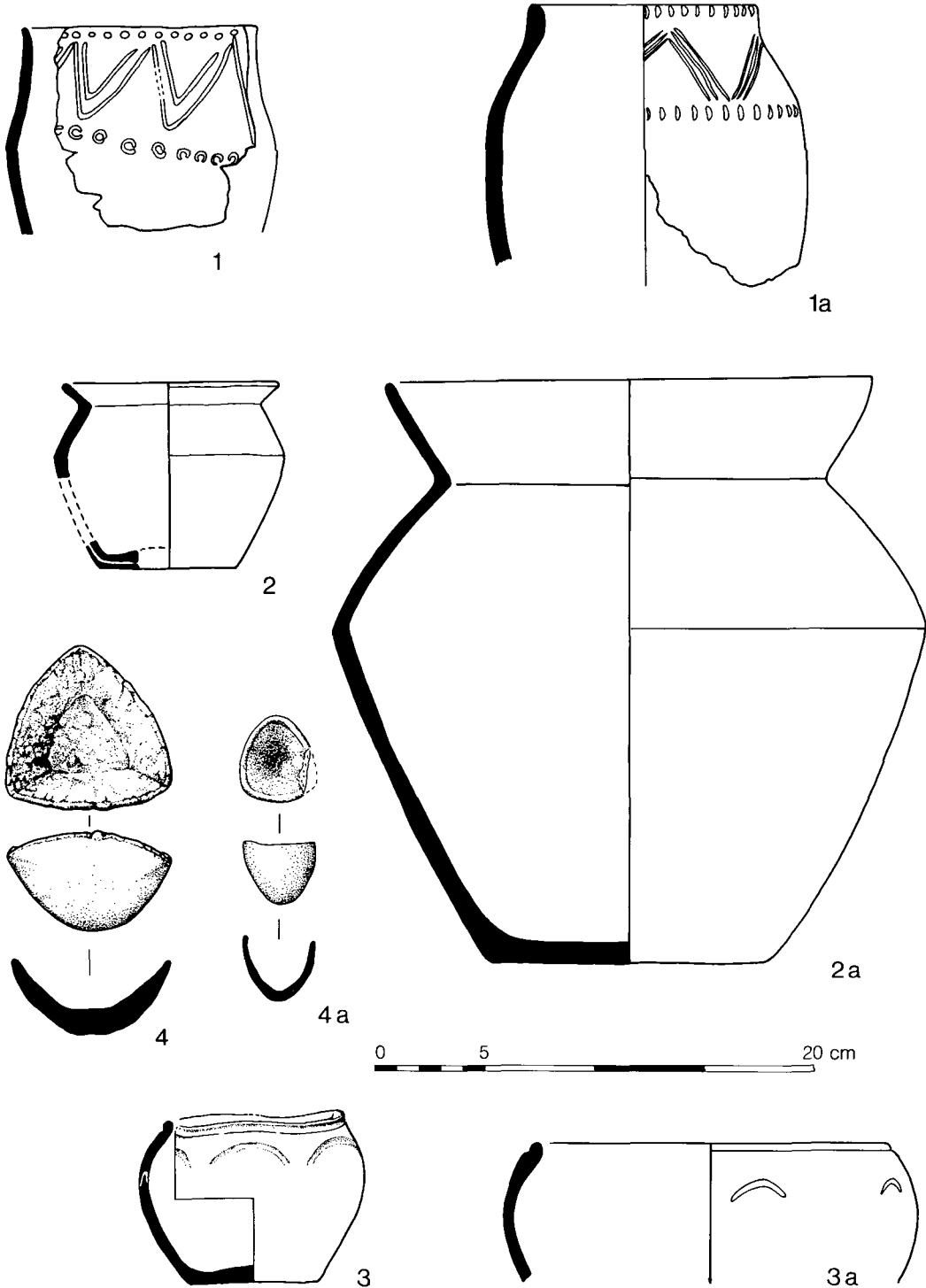
'a small number of influential P Celtic-speaking people from southern England and Brittany arrived and galvanised indigenous fort building traditions' (MacKie 1983, 120; cf Scott 1948).

Since this debate still dogs Hebridean archaeology and, I would argue, has a distorting effect on the understanding of the material culture of the area it seems fair to consider the full argument advanced. I would, however, reject MacKie's claim that it is insufficient to query each item separately. If it can be shown that most or all of the evidence cited can be faulted or otherwise interpreted, the validity of the whole hypothesis comes into question.

'IRON AGE A' INVADERS

'Iron Age A' migrants have never been more than a side-show in the Hebrides though they have been taken as a major element in the Northern Isles until recently (Hamilton 1968, 34–36; Henshall 1979, 188–90; cf Fojut 1985, 78–9).

'Iron Age A' pottery styles were claimed at Balevullin and Dun Mor Vaul in the pre-broch periods (MacKie 1971, 46). MacKie compares one vessel from Balevullin (cf *illus* 1 no 1 and 1a) to eastern and southern English material from Scarborough, Staple Howe, West Harling and All Cannings Cross (1963, 173). But the Balevullin pot is much smaller than most of the cited pottery and has to be seen as a miniature souvenir or memento of the homeland. Quite apart from the tenuousness of the comparison, it is clear from the description of the site, and the finds, that the assemblage is a collection of material from a site that saw a long time span of activity. It certainly cannot be taken as a closed assemblage as quoted in subsequent papers (1965a, 95). Given that the pottery may span many centuries and MacKie quoted parallels from the late Neolithic to the third century AD vague parallels for a few sherds with English Iron-Age pottery cannot be taken too seriously.

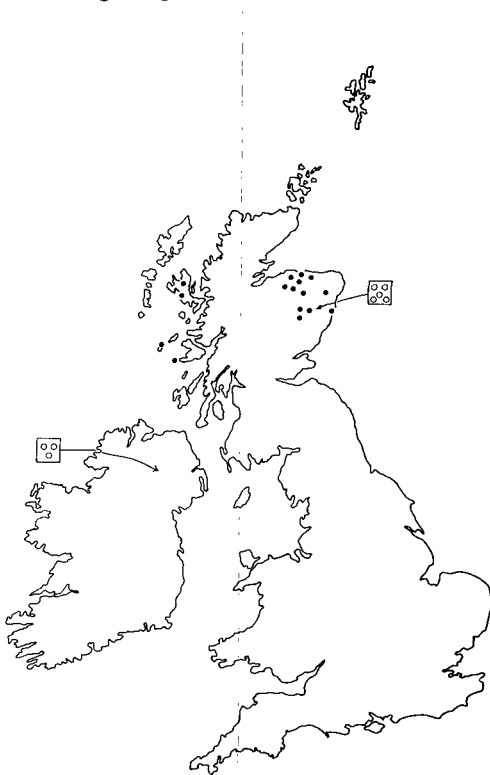


ILLUS I 1, 'Iron Age A' pottery vessel from Balevullin (after MacKie 1963, fig 2 no 1); 1a, Decorated sherd from All Cannings Cross (after Cunnington 1923, pl 32 no 4); 2, 'Iron Age A' pottery vessel from Dun Mor Vaul (after MacKie 1974, fig 13 no 113); 2a, Pottery vessel from Long Wittenham (after Savory 1937, fig no 2); 3, 'Iron Age B' pottery vessel from Dun Mor Vaul (after MacKie 1974, fig 15 no 226); 3a, Pottery vessel from Maiden Castle (after Wheeler 1943, fig 66 no 109); 4, Triangular crucible from Gussage All Saints (after Spratling 1979, fig 99 no 1); 4a, Triangular crucible from Dun Mor Vaul (after MacKie 1974, fig 19 no 495). (Scale 1:3)

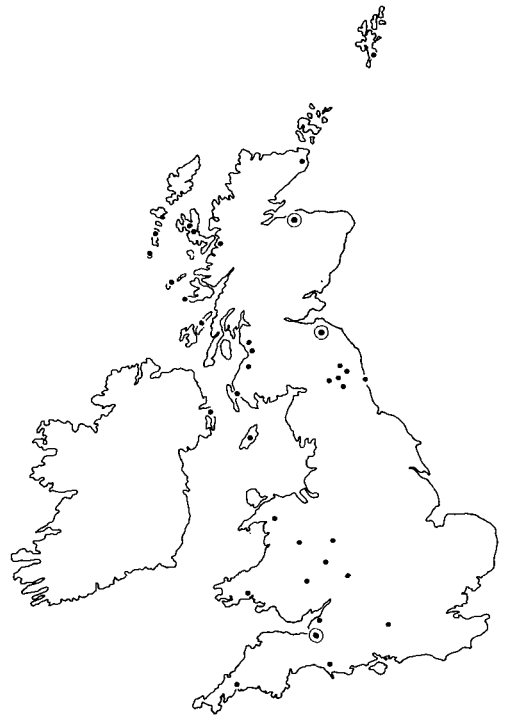
Another 'Iron Age A' 'momento' is claimed at Dun Mor Vaul (MacKie 1971, 46). This pot (illus 1 cf no 2 and 2a) with its sharply everted rim, sharply angled shoulder and reddish body slip, is compared to 'much larger vessels' from sites such as Long Wittenham and Micklemoor Hill (1965b, 270). The small size of this is explained as a 'momento pot', a unique miniature version of a ceramic style quite alien to the Hebrides, made for new settlers and recalling the styles used in their abandoned homeland (1971, 46). Yet what date is this pot? It was found with Cletraval-style pottery which is supposed to date to the first century BC at earliest (1974, 40-1). Thus only by ignoring the size of the vessel ('momento') and its associated finds (which are explained as mixed deposits) is it possible to claim 'Iron Age A' parallels and what MacKie thought was an appropriate date in the period late sixth century-fourth century BC (*ibid*, 77-8, 92-101). At least some of the English pottery with which he cites parallels is being pushed back into an earlier period by recent work (Longley & Needham 1980, 71-4) thus widening the gap between the context of the Vaul vessel and its supposed models.

'IRON AGE B' MIGRANTS

The major debate around the English migrants concerns the later evidence for an immigration from the south-west, either from southern England alone or in conjunction with people from north-west France (MacKie 1983). These people are somehow seen as responsible for the development of brochs as social catalysts on the native stone fort-building traditions. They are portrayed as refugees from Belgic expansion or from the Romans in Brittany (MacKie 1971; 1974; 1983). Since brochs are



ILLUS 2 North Scottish decorated annular beads, Guido class 14. After Guido 1978, fig 36 with one addition



ILLUS 3 Small yellow beads, Guido class 8 (dot in circle represent large concentrations). After Guido 1978, fig 25 with additions

not found in either area these unique Scottish monuments are not part of the invasion package but an indirect result of the arrival of dynamic chiefs and warriors. The evidence for broch development, geographic origin and date is complex and not central to the evidence for southern migrants (cf MacKie 1983; Fairhurst 1984; Fojut 1981). Consequently other than commenting on the supposedly intrusive broch 'guard cells' I will not discuss the problem of broch origins. To evaluate the claimed immigration all the other items of evidence marshalled by MacKie will have to be considered. I will look at each item in turn.

GLASS BEADS

Glass beads are one item which has been claimed as certainly brought from southern England (MacKie 1971, 48). Two groups of beads are in question: small yellow annular beads and larger opaque coloured beads with inlaid decoration, both types being seen as deriving from 'Iron Age B' contexts in the south of England. These beads have recently been studied by Margaret Guido who shows quite convincingly that the larger beads are a north-east Scottish group ('Class 14') now known from four sites in the west (Guido 1978, 87–9). Although these are claimed to be modelled on southern English originals they cannot be used as evidence of English migrants to the west unless a reflux from Aberdeenshire is to be argued (illus 2).

The yellow annular beads ('Class 8') are more problematic. These occur much more widely than Class 14 as Mrs Guido's distribution maps show (*ibid*, figs 25 & 36). Findspots are scattered through south-western England and Wales and then even more widely from northern England through south Scotland and east Scotland as far as the Shetlands. They are quite common in the Hebrides and several further findspots have to be added to Mrs Guido's map (Ritchie & Lane 1980, 219; illus 3).

But are the Hebridean beads introduced from southern England at a narrowly defined period, and are they thus a possible indication of population movement? In the south the beads are said to date as early as the mid-third century BC though some occur on Roman period sites (Guido 1978, 179–80). At Dun Ardtreck on Skye these yellow beads were found in association with Class 14 beads in deposits with Roman pottery giving a date of mid to late second century AD (MacKie 1971, 48). Since Mrs Guido argues that some of the yellow beads are likely to have been produced in the north-east of Scotland, perhaps at Culbin Sands, it would seem the simplest explanation to recognize the Hebridean finds as another indication of contact across Scotland. The alternative south-western source requires chronological juggling as well as dismissal of the north-eastern source indicated by the Class 14 beads.

BRONZE SPIRAL FINGER RINGS

MacKie cites bronze spiral finger rings as the clearest evidence of the arrival of people from southern England (1971, 50). As Jope (1957), Stevenson (1966) and Clarke (1971) have all pointed out, there are problems in assuming the contemporaneity of all the rings in southern England and Scotland. Jope quotes Romano-British and Saxon examples (1957, 79–81), while Stevenson suggests that use of the type persists down to the eighth century AD (1966, 22). Clarke cited earlier examples in middle Bronze-Age contexts and questioned MacKie's interpretation of the ring distribution (1971).

However, it is important not to exaggerate the number and significance of these rings. MacKie quotes only one from the Hebrides, from a secondary context at Dun Mor Vaul (1971, 50). Clarke's map of spiral rings includes further examples in the Hebrides. Some of those from the mainland such as that from Dunadd are, as Warner has noted, not readily distinguishable from the ring element of Dark-Age spiral ringed pins (Warner 1976, 288–9). That from the Udal, North Uist is from a context later than occupation dated by radiocarbon to the first century AD (*in litt* I A Crawford; cf Crawford & Switsur 1977, fig 2).

Of the Hebridean finds only the Vault example has any detailed published context or date. This came from late deposits in the wall gallery of the broch associated with Roman glass attributed to phase 4 on the site after the broch had been demolished (MacKie 1974, 26–7, fig 9). This puts its context in the period 160–250 AD or later (*ibid.*, 94–5). The reported find from Dun Ardtreck also comes from a deposit dated by Roman finds to the second century AD (MacKie 1965c, 8).

In view of the evidence from Dun Mor Vault it is a little difficult to see how bronze rings can be used to indicate an influx in the first century BC. MacKie's map, if anything, shows that the Hebrides have been missed by an influx of ring bearers (1971, fig 3). This is not to deny that some rings may indicate 'British' influence such as the 'refugee' interpreted from the Loughy, Co Down burial (Jope 1957; Warner 1976, 274–80), but given the simplicity of their form and the wide range quoted by Clarke this group of finds cannot be accepted as evidence of migration into the Hebrides in the first century BC.

BONE COMBS

Long-handled weaving combs were of course cited as one of the key indicators of English migrants as long ago as 1935. MacKie likewise quotes them as indicating the arrival of womenfolk:

'it seems somewhat improbable that the aborigines could learn the weaving technique except by direct example' (1971, 50).

In this he follows Childe who believed that 'weaving combs' implied women (1940, 247). The importance of this identification is that it allows MacKie to rule out 'traders' as an explanation and argue that 'families' have arrived (1974, 103). But the assumption that weaving was done by women is open to question (cf Hodder 1982c, 12–13). MacKie also recognized that the ubiquity of the combs in the English Iron Age, which led Hodson to adopt them as a type fossil of his catch-all 'Woodbury Culture' (1964), undermined their usefulness as an indicator of southern English invaders in the first century BC.

John Hedges and Ian Hodder have discussed these combs in some detail and Hedges has queried whether the combs could be used for weaving in any case (Hodder & Hedges 1977; but cf Sellwood 1984, 371–8). One alternative explanation of the 'weaving combs' is that they are hair combs (cf Hodder 1982c, 68–71). It might be argued that this still implies the presence of women/families. However, there is evidence to show that some Celtic men had quite elaborate hairstyles. Diodorus Siculus tells of the Gauls bleaching their hair and drawing it back from their foreheads (Tierney 1960, 249), and there are various depictions of elaborate hair coiffure on coins (Allen 1980, 135–6), on metalwork (Ross 1967, 69), and in sculpture (Chadwick 1970, pl 2B). This interest in hair care can be seen in western Britain in later documentary sources (Davies 1982, 30; Alcock 1987, 131–2). Neither Hedges nor Hodder fully discuss the degree of similarity between the Scottish and English combs but it is clear that in their rarity or simplicity of decoration, and in their shape, the Scottish ones are significantly different.

Again questions of date arise since the English combs span a period from the middle Bronze Age to the Roman period (Hodder & Hedges 1977, 17). In Scotland dated contexts are rare, but occurrences at sites such as Newstead may indicate dates in the early centuries AD rather than the first century BC date required by the migrant hypothesis. The example from Clickhimin in Shetland may indicate an earlier find (MacKie 1971, 50), but as yet there are no firm dates available for the site and the relevance of finds in Shetland to migrants in the Hebrides is questionable. A new find from Bu on Orkney comes from the infill of an earthhouse (phase IIIb). This postdates occupation with a radiocarbon date of 2545 ± 65 bp ie cal BC 825–415 (Hedges 1987, 29, 46, 117) and may indicate that the Scottish combs have a longevity comparable to the English ones but this will only be established when further stratified and dated examples are found.

Other finds may indicate a substantially later date. One comb from Galson on Lewis was apparently found in a midden deposit with finds indicative of a Viking-Age date (Edwards 1924, 198–202; Lane 1983, 315–18). Henshall reports a find from Aikerness in association with an ogham-inscribed knife handle which Padel dates to the seventh century AD (Henshall 1950, 146; Padel 1972, 27). The combs from Bac Mhic Connain, Garry Iochdrach and Foshigarry are likewise all from sites with finds of this same late date (Lane 1983). The Viking-Age weaving combs from Birka, however, cited by Hedges (Hodder & Hedges 1977), appear to be a quite different composite socketed form and consequently not really of relevance (Graham-Campbell 1980, 21). Nevertheless the time span of the British combs is clearly considerable.

In any case Henshall's map of the combs gives no support to a claimed south-western origin (1950, fig 5). The general distribution through Britain may be more indicative of investigated sites with preserved bonework than any finite cultural spread.

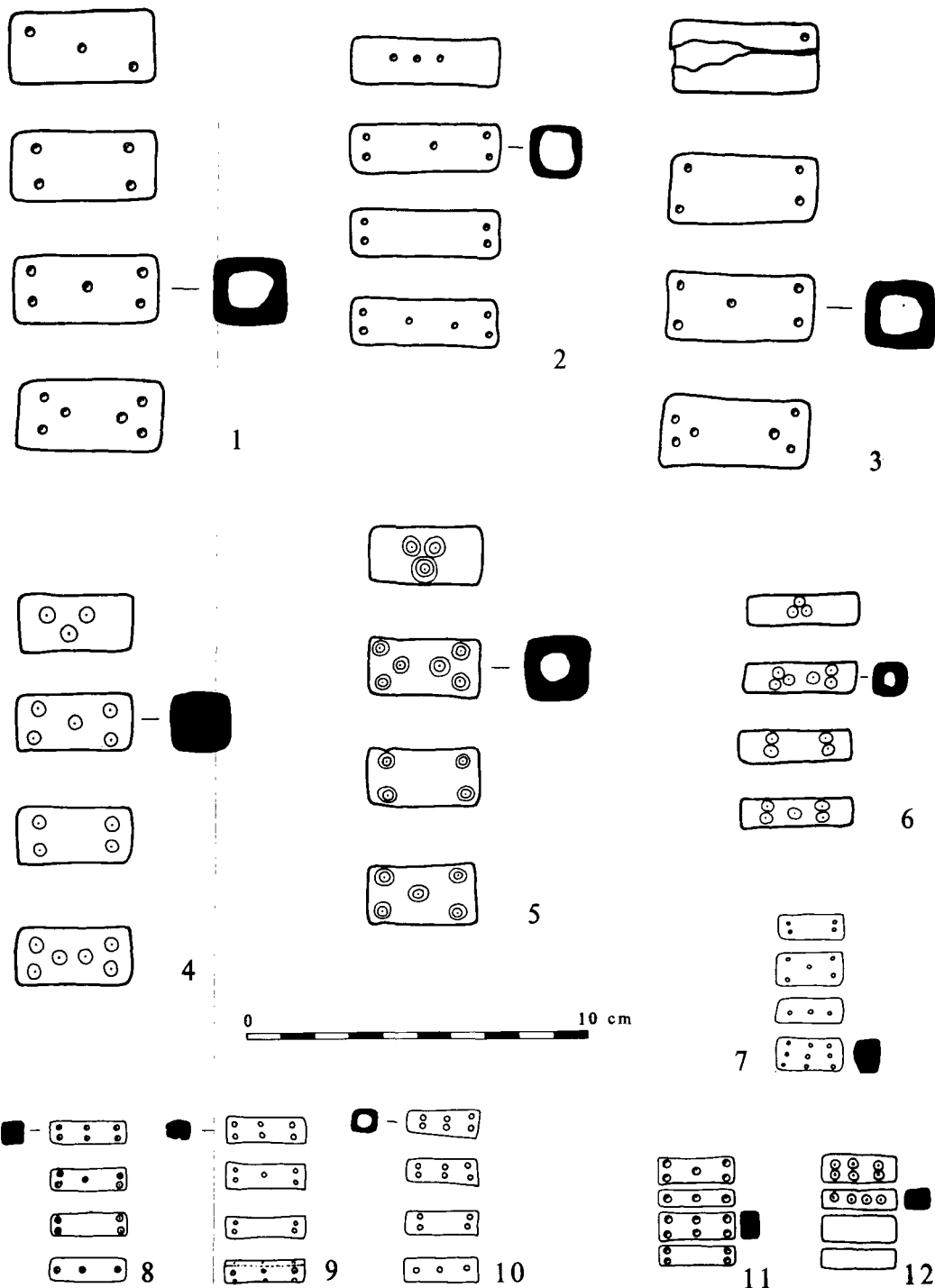
BONE DICE

MacKie regards paralleloiped bone dice as a more precise chronological indicator of southern influence in the Hebrides (1971, 52, 67–8). These were discussed by Clarke in a paper devoted largely to the dice but also to a refutation of MacKie's argument for Wessex migrants (Clarke 1970). Clarke argued that none of the dice in Scotland could be securely dated before the second century AD but that several finds – from Burrian, Bac Mhic Connain and Foshigarry – were quite likely to be of Dark-Age date. To these one could add the Dun Cuier finds as possibly of similar date (Lane 1983, 253–7). These late dates would be supported also by the Irish evidence (Clarke 1970, 217–18; Raftery 1984, 247–8).

MacKie rejected Clarke's general criticism and argued that the single find from Clickhimin proved that dice were found on Scottish sites early enough to be linked to the southern English series (1971, 66–9). More recently Caulfield has demonstrated that there are significant formal dissimilarities between English and Scottish types, both in size and in the display of figures (Munro Lecture 1980). The Scottish dice are up to twice the length of the English examples and some of the numbers (eg 6) are displayed differently (illus 4 cf 1–6 and 7–12). Thus the claimed derivation of the Scottish forms from the English forms is weakened. The degree of chronological overlap between the two groups is still questionable. Even if the Clickhimin find were to be attributed to the first century BC (and it must be re-affirmed that this date is very much hypothetical) the date of the other finds is unaffected. The two examples from Dun Mor Vul are from uncertain contexts though MacKie attributes them to late activity in phase 3B or 4 (1974, 144). Again this implies a date in the early centuries AD. Thus both distinctions in form and in date still seem to separate the two groups of dice.

TRIANGULAR CRUCIBLES

Another artefact cited in support of the south-western origin is the triangular crucible. MacKie states that identical crucibles were found at Glastonbury and Meare but does not explain how common they are at other sites or how distinctive they are of that area or period. Spratling, however, draws a clear distinction in shape between the Scottish and English crucibles (illus 1 cf no 4 and 4a). Though both are triangular the English examples are much shallower in relation to their width (Spratling 1979, 130). There also appears to be a significant technological difference in the use of crucibles in each area. The southern examples have vitrification only on the upper part of the body and appear to have been heated from the top. The Scottish ones have signs of vitrification on the bases. This would seem to indicate a significant difference in the two metalworking traditions (*in litt*, M Spratling).



ILLUS 4 Bone dice from Scotland (1-6), England (8-12) and Wales (7). 1, 3 Gurness; 2 Stywick Bay; 4 ?Scotland; 5 Foshigarry; 6 Bac Mhic Connain; 7 Coygan; 8, 9, 10 Glastonbury; 11, 12 Maiden Castle. (After Clarke 1970; Bulleid & Gray 1917; Wainwright 1967; Wheeler 1943)

A number of crucibles were found in secondary contexts at Dun Mor Vaul in deposits with Roman finds indicating second- and third-century AD dates (MacKie 1974, 150–1). One of the same contexts produced mould fragments for what Warner identifies as an Irish type of spear butt, and he at least sees this metalworker (or the local patrons) as having strong Irish connections rather than English ones (Warner 1983, 166; cf Raftery 1981). The other quoted find is from A'Cheardach Mhor, phase 3 (MacKie 1971, 55). This is associated with bone pins and pottery for which a Dark-Age date can be suggested (Lane 1983, 257–9).

Thus at both the Hebridean sites with dating evidence the triangular crucibles are attributed to the Roman and post-Roman periods, and perhaps more importantly the crucible shapes and technology seem to differ significantly from the English finds quoted.

QUERNSTONES

Disc querns are another group of finds which MacKie cited as evidence of southern contact (1971, 52–5). Essentially he argued that upright-handled disc querns were a direct cultural import from south-west England whereas mainland Scotland used 'beehive' or 'bun-shaped' querns with lateral handles.

This view that disc querns reached the Hebrides direct from Wessex has been rejected by Caulfield who has argued for an Iberian link (Munro Lecture 1980), though as yet without any detailed published argument (cf 1978, 129). MacKie has now accepted that such querns are not typical of the southern English Iron Age but instead argues that the obvious alternative source is Brittany (1983). Since no dated or stratified querns of this type have been reported in the area this claim seems a little weak.

The evidence that disc querns arrived in the first century BC with Wessex or Venetic migrants is provided by the site of Dun Mor Vaul. One upright-handled disc quernstone was found in a context argued to be immediately pre-broch (MacKie 1974, 39–40, 70). However, the date given to this phase of activity (Vaul phase 2A) depends largely on MacKie's beliefs in southern contacts in the first century BC. The date of broch construction is difficult to establish other than by the deposits seen as primary broch activity. These are dated by one radiocarbon date of AD 60±90 (GaK 1097) ie cal BC 100–cal AD 340, and by Roman glass dated 160–250 AD from the upper part of the primary broch floor (MacKie 1974, 92–5). While this evidence could be consonant with a broch construction date of 70–40 BC (*ibid*, 93) it can hardly be regarded as conclusive evidence.

If the Vaul quern is immediately pre-broch it could easily be of first-century AD date or later. By that period disc querns are beginning to be found on the Scottish mainland (MacKie 1972, 144). The numerous disc querns on souterrain sites may also date as early as this (Wainwright 1963; Watkins 1980a; 1980b); some of the querns from Crosskirk broch, Caithness may date rather earlier (Fairhurst 1984, 128–30). In view of the presence of disc querns on the mainland and the doubt about the Vaul date the quern evidence for direct contact between the Hebrides and south-west England or Brittany must be regarded as suspect.

POTTERY

The pottery evidence has been seen by some as the strongest evidence for contact between the Hebrides and southern England. I have already examined the evidence for 'Iron Age A' ceramic influence. The major debate of course relates to Wessex influence on pottery in the first century BC.

South-western influence on Hebridean pottery was claimed by Scott (1948) and 'Eastern 2nd B' by Thomas (1963). Childe (1935), Lethbridge (1952) and Alcock (1980) have all denied any close or significant similarity with English 'B' material. In 1965 MacKie thought that eastern English

influences might account for his comparisons with English 'B' pottery (1965a, 132), but by 1971 he had rejected this (1971, 45–8).

MacKie criticized Scott's analysis of the pottery from Cletraval whereby examination of isolated traits – '*dissecta membra*' – allowed links with Glastonbury and Meare to be claimed (1971, 46). MacKie rejected this and claimed that the inspiration for concentric arches on Cletraval pottery was provided by simple eyebrow-ornamented bead-rimmed bowls of the 'Iron Age B culture' of Wessex. In support of this he cited another 'momento' pot from Vaul – a local miniature imitation of a bead-rimmed bowl (*ibid*, 46–7).

MacKie's views of Hebridean pottery are very strongly influenced by the Dun Mor Vaul sequence, the only published site with such pottery and radiocarbon dates. There he distinguishes two main groups, Vaul ware attributed to Hebridean 'aborigines' and everted rim ware with its decorated sub-style Cletraval ware (1971, 45–8; 1974, 157–65) both of which are attributed to foreign influence. On the basis of radiocarbon dates Vaul ware was dated as early as the sixth or fifth century BC but continued into the early centuries AD. Everted rim ware arrived again perhaps as early as the fifth century BC or in the first century BC (MacKie 1974, 106–8). The Cletraval-style decoration amalgamated with everted rim ware shortly before the broch was built (MacKie 1971; 1974, 157–60).

I personally doubt whether this classification can be applied throughout the Hebrides, and even at Dun Mor Vaul the division between Vaul ware and everted rim ware seems very subjective. Thus Vaul ware vases have everted rims (eg Mackie 1974, fig 11, nos 20 & 21); others are virtually identical in shape to everted rim vases (cf *ibid*, fig 15, nos 2, 220 & 225) and cordons appear on Vaul ware vessels (*ibid*, fig 11, no 40). Some distinction between incised and channelled decoration is clear and MacKie claims that distinct fabrics separate the two groups but this has not been demonstrated at other sites.

Likewise there may be doubt about the early dates attributed to Vaul ware. One date of 445 ± 90 BC (GaK 1098), ie cal BC 795–255, from grain in the earliest pre-broch phase, was originally closely associated with a disc quern which MacKie dates no earlier than the first century BC (1974, 70; 1971, 54; cf 1965b, 270). Only a retrospective explanation of disturbance separates the quern and the grain and provides an early date which is necessary to indicate the aboriginal quality of Vaul ware. Two other dates can be quoted in support of an early date. One of 400 ± 110 BC (GaK 1092), ie cal BC 795–180, comes from 'roots at an old ground surface under the earliest midden' and one of 280 ± 100 BC (GaK 1225), ie cal BC 510–40, from animal bone in a midden underlying the outer wall (1974, 229). The three dates might be seen to buttress each other in support of an early date for pre-broch activity – calibrated at 2 sigma, a span of cal BC 795–40. But two other dates out of nine were rejected as unacceptable: 1195 ± 90 BC (GaK 1096), ie cal BC 1625–840, for broch construction; or as suspect: AD 490 ± 200 (GaK 1520), ie cal AD 130–985, in association with a Norse bone comb (*ibid*, 229–30). This latter date was explained as deriving from bone with insufficient organic material left thus giving too old a date. The calibration makes this 'unacceptable' date quite compatible with the associated comb.

In view of these problems how reliable are the dates for Vaul ware? The standard deviations on the dates are large, from 90 to 110 at 1 sigma. If calibrated according to the most recent *Radiocarbon* recommendations (Stuiver & Pearson 1986) they span a period of cal BC 795–40 without any consideration of laboratory error or other problems (Bailie 1985, 19). As has already been noted the grain date was associated with a quern which MacKie dates as no earlier than the first century BC. Since Clark has postulated additional errors of up to 120 years on such short-lived samples this date too must be queried (Clark 1975, 257). In addition it may be worth noting that two out of three radiocarbon dates processed by the same Gakushin laboratory in Japan for trackways in the Somerset Levels produced dates almost 1000 years too old (Orme 1982, 20, 32). Consequently it seems premature to accept that Vaul ware is much earlier in date than the first century BC.

The Dun Mor Vault stratigraphy does indicate that incised decoration is older than channelled decoration, as Alison Young argued from the evidence of other sites (Young 1966), but how old the Vault style is must be in doubt. MacKie seeks an origin for his everted rim ware in France (1974, 106–8) and has attributed its introduction to the Veneti (1983, 125). The everted rim trait, with or without horizontal fluting, which MacKie wishes the Veneti to bring to the Hebrides was originally reported by Hamilton on quite different vessel forms in Shetland. Hamilton quoted French Urnfield parallels but recognized chronological uncertainties in comparing the French and Shetland assemblages (1968, 91–2). MacKie has expressed doubt about whether the everted rim trait was introduced in the fifth century BC or the first century BC though in his recent paper the latter date is favoured (1983, 124–5).

As I have already noted, everted rims occur on Vault ware. The vessel forms in France seem quite different to both those in the Hebrides and Shetland (cf Sandars 1957, figs 49, 60, 78, 79, 83; MacKie 1974, fig 14, no 180; Hamilton 1968, fig 42). Finally the French material quoted is dated to the late Bronze Age. In the absence of evidence that fluted everted rims are later than the late Bronze Age the pursuit of such a source for influence in the Hebridean late Iron Age seems futile.

It is the Cletraval-style decoration which MacKie attributes to Wessex migrants. This does not appear until shortly before the broch was built (1971, 44–8). As I have already argued, the primary broch dates are also open to question and Cletraval ware need not date earlier than the first century AD (Ritchie & Lane 1980, 219). The basic item which MacKie draws from Wessex is the channelled arch motif, derived from eye-brow ornamented pottery. The parallel between Scottish and Wessex pots is simple and again only possible by returning to the disassociated traits which MacKie rejected in Scott's work (1971, 46). MacKie regards a 'momento bead-rim bowl' as the crucial item indicative of a direct Wessex connection (illus 1, no 3).

This vessel is made in the local fabric by local methods. It was made with an everted rim which was then trimmed off. Decoration consists of one very faint channelled arch repeated round the shoulder of the pot. In size it is quite comparable to other vessels at Dun Mor Vault (see diameter measurements in MacKie 1974, 166–86).

It is, however, much smaller than the Wessex 'prototypes' (eg illus 1, no 3a). Thus it is only its simple decoration, and a superficial resemblance to a bead-rim bowl, that allows any differentiation from the rest of the assemblage. MacKie is forced to postulate that a vessel was made and fired, and then had its rim removed, as a momento of the Wessex homeland (1971, 46). This vessel was found in a context thought to indicate a date near the end of the primary broch floor deposit, the same deposit with Roman glass dated 160–250 AD (MacKie 1974, 42–4). MacKie has to argue that the vessel pre-dates the broch in order to relate it to Wessex material of the first or second century BC and thus to date early in the presumed evolution of Cletraval ware (1971, 46–7). Again the argument can only be maintained by doing violence to the site stratigraphy. With Clarke (1970, 220) I must express doubt at this interpretation.

In consequence, those who doubt the necessity for or evidence of English influence recognizable on Hebridean pottery would seem to have the stronger case.

WOODBURY FARMSTEADS

Another piece of evidence cited in support of southern influence is the 'Woodbury farmsteads' (1971, 55–7). MacKie distinguished between the apparent economy of the southern Iron Age and that of the Hebridean sites but he felt that close formal similarities – 'carbon copies in stone' – between two wheelhouse sites and southern settlements like Little Woodbury were sufficient to suggest a direct link. The idea that wheelhouses and brochs are merely variant roundhouses transformed from timber into stone was argued by Scott in 1947 (1947, 26–9), though the peculiarities of both brochs and wheelhouses have never been fully explained in this derivation. If it could be shown that the detailed

use of internal space was identical the idea might have some merit, though Barrett has argued that more deep-rooted structuring principles could account for quite close similarities (1981). But circularity by itself can hardly be seen as culturally diagnostic and stone roundhouse structures can now be dated as early as 700 BC on Orkney (Renfrew 1979, 194; cf Sharples 1984, 119–22).

MacKie's suggestion, however, refers specifically to Cletraval and Allasdale where wheelhouses are found with rectangular outbuildings and enclosed by low stone walls. The problem at these sites is whether the enclosure walls and rectangular structures are contemporary with the wheelhouses, rather than being of later date. With the possible exception of the elusive and undated northern 'wags' there is no evidence for rectangular buildings in the northern Iron Age prior to the onset of Roman influence.

At Allasdale the rectilinear structures are stratigraphically later than the wheelhouse, and the presence of Viking-Age pottery associated with the so called 'working place' indicates the lateness of some of the activity (Lane 1983, 303–4). At Cletraval the evidence is less clear but in the absence of other rectangular buildings dated to the Iron Age these too must be seen as probably of later date.

Thus the Woodbury farmsteads can likewise be rejected as southern indicators.

BROCH EVOLUTION AND BIRTH

MacKie argues that the emergence of the broch is the result of the impact on native fort building traditions of intrusive refugees of probable high status (1971; 1975). But neither brochs, semi-brochs nor duns can be closely paralleled in the south. He argues that the forerunners of the broch are the drystone forts of the Hebrides and west coast with the semi-brochs of Skye the immediate prototype (MacKie 1971, 39–44).

Only one specific structural innovation is attributed to Wessex influence. This is the use of double guard cells which MacKie believed appeared in the Hebrides at the time that the first brochs were built, in contrast to their absence in the broch prototype the semi-broch (1971, 62–4). Clarke has already argued that the Welsh and English sites with such guard cells are too early and outside Wessex to be attributed to our Wessex colonists (1970, 220). Two further points can be made. The radiocarbon evidence that semi-brochs pre-date brochs is disputable, as is the theory that brochs emerged in the west rather than the Northern Isles (MacKie 1971, 39–44, cf MacKie 1980, 69–74; Fojut 1981, 220–8; Fairhurst 1984, 164–83). Secondly, the substantial differences in form and perhaps function between the hillfort and broch guard cells (Lamb 1980, 37–8, 61), plus the presence of corbelled cells of an earlier date in Scotland, must strengthen belief in a local evolution (Ralston 1979, 474). Indeed the 'guard cell' in the 'broch-like' structure at Crosskirk may date pre-100 BC (Fairhurst 1984, 51, 166–7). Thus again Wessex migrants are both difficult to find and unnecessary.

DISCUSSION

I have examined the numerous items quoted in support of Wessex or Venetic migrants settling in the Hebrides and none of the evidence cited so far stands up to rigorous examination. Some cannot be dated early enough to be relevant. Other evidence is of an extremely superficial nature and still other types are found so widely as to make specific folk movement an unlikely explanation. But do a number of weak arguments constitute a stronger case? This may be conceived in abstract, but in this example we can only accept the interpretation by extracting much of the evidence from its apparent chronological framework.

MacKie's thesis of Wessex migrants is a classic example of the invasion hypothesis. The basic assumption is that a cluster of formal similarities is best interpreted as evidence of population movement even though most aspects of the local archaeological record cannot be paralleled in the

donor area. But this interpretation depends not only on formal similarities but also on a set of implicit assumptions about the relationship between material culture and 'society'. Assemblages of artefacts or 'cultures' are equated with peoples and tribes. Since people are believed to be inherently conservative the introduction of a range of new types to an area over a short time span is interpreted as an influx of people (cf Trigger 1978, 64–73). Even though there may be major areas of continuity an external shock is required in order for brochs or Cletraval Ware to emerge from the native continuum (cf Childe 1950, 10).

These twin assumptions, which are implicit in MacKie's interpretation, were familiar to Childe and his contemporaries, and are key aspects of archaeological interpretation prior to the 1960s. But Childe and others grew increasingly disillusioned with the culture/tribe or political unit equation and there was real uncertainty as to what 'cultures' did represent (Hodder 1978, 4). Childe rejected some of the more extreme and often racist diffusionist views about the inherent conservatism of particular groups, but rapid innovation or adoption of radically new traits was still thought likely to indicate foreign influence (Trigger 1978, 66–8, 91–123).

The problem of course, as Childe was clearly aware, was how to distinguish independent innovation from exchange or trade of objects, and how to distinguish the latter from migration (Childe 1950, 1–10). His answer was that to recognize a population movement it would have to be represented by a 'substantial number of distinctive archaeological traits' (Childe 1958, 6). He was also clearly aware that intrusive groups could settle but leave little obvious trace in the archaeological record (Childe 1950, 2).

Since the 1960s the invasion hypothesis has been largely rejected and it is now scarcely respectable to mention it. Hodson's refutation of Iron-Age invasions (1962) and Clark's of Neolithic and Bronze-Age ones (1966) were essentially empirical reviews of available data that concluded that there was no clear evidence for invasions. Thus Renfrew observed that

'the culture in the suggested homeland of the migrating people often bears very little resemblance in terms of actual finds, to that of the people in the area under study whose origin the migration was supposed to explain' (1973, 109).

But the attack on the invasion hypothesis appears to have precluded any proper theoretical discussion of how, or even if, archaeology could recognize such an event (cf Collis 1977).

More recently the problem of the interpretation of material culture and of 'cultures' has again become a respectable area for study (eg Hodder 1978). Hodder and others have shown the complexity of the uses of material culture, and the variability in the ways individual groups use artefacts and styles to signal identity and to interact with other groups (Hodder 1978; 1982a; 1982b; 1982c). In discussing correlations between cultural distributions and ethnic/social/political groups Hodder has noted the absence of evidence for documented incursions, as well as some tentative work aimed at explaining differences in the material effect of different population movements (Hodder 1978, 1–11, 258–9). But no detailed theoretical work on this problem seems yet to be published.

The thesis that rapid innovation, or the adoption of new traits, requires external stimulus has, however, been clearly called into question. For example Bauman (1971), Miller (1982) and Hodder (1982b) have shown that it is the way items are used in any society's social and political strategies that determines how easily or slowly innovations can be adopted. Thus rather than look for a general law that it takes so many items to 'prove' an invasion, we have to study closely the use of material culture in specific historical formations.

Thus MacKie's interpretation can be firmly situated in a diffusionist mode of explanation and I have tried to outline some of the implicit assumptions involved in that. However, the bulk of my paper has been concerned with the empirical evidence for each item in his argument. MacKie argues

that the number of items which he derives from the south aggregate to support his interpretation (1975, 88–90). And the alternative interpretations which he briefly advances – independent invention, trade, male warriors, and mass migrations – are all dismissed as failing to explain his clustered innovations in the first century BC (MacKie 1974, 101–3). Thus the presence of certain items, ‘weaving combs’, beads and querns, are seen to indicate the presence of women (families) rather than warriors or traders (men). But none of these correlations is universal and neither Childe nor MacKie attempted to show that these items were associated with women in Wessex (cf Hodder 1982c, 12–16). Combs and beads may well be male items. Nevertheless the aggregation of items can be seen as comparable to the way formal analogies and interpretations are strengthened by increased points of similarity (Hodder 1982c, 11–27). Does the aggregation of formal similarities lend credibility to the Wessex/Venetic migrant thesis?

Even at a strictly formal level the comparisons between the Hebrides and Wessex are not convincing. Both the dice and the crucibles in each area can be differentiated, as can the querns if we follow Caulfield’s views. The similarities for pottery are extremely vague and selective and for guard cells and the Woodbury farms very general. The rings and combs are simple forms and the beads can be better explained by another source.

Likewise the evidence at present for a short invasion horizon is flawed. MacKie has to argue that all his new traits, including pottery and brochs, appear at the same time in order that the apparent rapid innovation should require an external stimulus. But, as I have already argued, Hodder and others have shown that rapid innovation and acceptance of new items can occur indigenously. In any case it is clear that MacKie’s dating horizon is provided by an *a priori* belief in southern links rather than archaeological evidence in the Hebrides.

Many aspects of Hebridean material culture show no significant link with any exterior area, the pottery in particular seems *sui generis*. It is for this reason that I have looked at the evidence for the Hebrides particularly rather than at a more vaguely defined Atlantic province. I suspect that a similar case could be made for the Northern Isles, but we must await radiocarbon-dated sequences from that area.

This is not to say that refugees and others may not have migrated into the area in the way Warner argues for Ireland (1976), but the lemming-like progression of southern peoples towards Shetland cannot be thought inherently likely before the influence of Victorian romanticism or the discovery of oil.

However, in challenging MacKie’s chronology it could be argued that I have merely shown that the intrusion could be moved to the first century AD when refugees from Roman conquest might be expected. It may be that as new dates are obtained some of the evidence will be pushed earlier but no such dating evidence has yet been published. As should be clear I do not reject the concept of population movement as a legitimate area for study. But the empirical evidence of formal analogies with Wessex is quite weak. It may be that the Wessex migrant theory is in process of replacement by an Irish migrant alternative (Warner 1983; Caulfield 1980). Any attempt to explain Hebridean material culture in terms of invasion will need far stronger empirical evidence including independent chronological evidence. It will also have to explain why most of the artefacts and structures in the area are so unlike those found anywhere to the south. And it will also have to tackle the theoretical problems concerning the implications of change in the archaeological record.

The recognition of invasions or migrants is a particularly difficult problem for archaeology and one which cannot be totally dismissed from historical research. Even those interested purely in social structure should not be wholly uninterested in influxes of people since their impact or lack of impact on indigenous processes is of genuine historical interest. But some historically documented migrations are extremely difficult to recognize archaeologically and the distinction between evidence of

settlement and evidence of more temporary forms of contact and exchange has not been clearly demarcated in archaeological theory or practice.

With regard to the Hebrides it is my contention that there is no coherent evidence for English migrants in the area and that the attempt to recognize them has resulted in a distortion of the local archaeological record. Both Clarke (1971) and Barrett (1981) have referred to the archaeological richness of the area, but if we are to interpret intelligently rather than merely describe we still need to resolve problems of chronology, distribution and long distance linkage, as well as look closely at the contexts of our artefacts and structures.

The 1960s and 1970s saw MacKie pursue an impressive campaign of research and excavation in the Hebrides and north-western mainland. What we need now is a concerted programme aimed at Iron-Age sites in the area in conjunction with a new analysis of artefacts and in particular the ceramic sequences. Dependence on external typological parallels for dating evidence is not adequate in an area that shows very strong regional peculiarities. With more independent dates and detailed analyses of artefacts, structures and their mutual contexts we can then begin to seek whatever historical explanations seem most appropriate. The citing of French Urnfield parallels for pottery spatially separated by hundreds of miles of sea and chronologically separated by hundreds of years can only be regarded as a reduction to absurdity of archaeological method.

ACKNOWLEDGEMENTS

Assistance has been provided by many people over a number of years in eliciting information for this paper. I would particularly like to thank Dr E W MacKie for his help with finds in the Hunterian Museum over many years; J Barrett for initial encouragement and discussions on English ceramics; M Braithwaite for advice and criticism about archaeological interpretation; E Campbell for help with the radiocarbon calibration; I A Crawford for information about the Udal; J Hedges for information about Bu; W H Manning for advice on Celtic hair styles; M Nieke for discussion of querns and dice; M Spratling for advice on crucibles; N Sharples for critical comment; A Welfare for comment on querns. Mary Braithwaite read and assisted in various drafts of this paper. S Thompson and V Dias typed it. H Mason drew the figures. Finally I would like to thank Ian Shepherd for his helpful editorial comments.

NOTES

- 1 The terms Iron Age 'A' and 'B' have been used in several of the papers concerning southern influence in the Hebrides. Although these terms are no longer thought useful in accounts of the Iron Age in southern Britain it seems easier to retain them as a form of 'shorthand' in this paper. This in no way implies a belief in such 'cultures' in the British Iron Age (cf Piggott 1966; Hawkes 1959; Champion 1979).
- 2 I am of course using the term English as a geographical indicator and not as an ethnic term!

REFERENCES

- Alcock, L 1980 '“Populi bestiales pictorum feroci animo”: a survey of Pictish settlement archaeology', in Hanson, W S & Keppie, L J F (eds), *Roman Frontier Studies 1979*, Oxford, 61–95. (*Brit Archaeol Rep*, S71.)
- Alcock, L 1987 *Economy Society and Warfare among the Britons and Saxons*. Cardiff.
- Allen, D F & Nash D (ed) 1980 *The Coins of the Ancient Celts*. Edinburgh.

- Baillie, M G L 1985 'Irish dendrochronology and radiocarbon calibration', *Ulster J Archaeol*, 48 (1985), 11–23.
- Barrett, J C 1981 'Aspects of the Iron Age in Atlantic Scotland. A case study in the problems of archaeological interpretation', *Proc Soc Antiq Scot*, 111 (1981), 205–19.
- Bauman, Z 1971 'Semiotics and the function of culture', in Kristeva, J (ed), *Essays in Semiotics*, The Hague, 279–91.
- Bulleid, A & Gray, H St G 1917 *The Glastonbury Lake Village*, Vol II, *Glastonbury*.
- Chadwick, Nora K 1970 *The Celts*. Harmondsworth.
- Caulfield, S 1978 'Quern replacement and the origin of the brochs', *Proc Soc Antiq Scot*, 109 (1977–8), 129–39.
- Caulfield, S 1980 'The Iron Age in Atlantic Scotland', Munro Lecture (unpublished), Edinburgh.
- Champion, T C 1979 'The iron age: southern Britain and Ireland', in Megaw & Simpson (1979), 344–421.
- Childe, V G 1935 *The Prehistory of Scotland*. London.
- Childe, V G 1940 *Prehistoric Communities of the British Isles*. London.
- Childe, V G 1946 *Scotland before the Scots*. London.
- Childe, V G 1950 *Prehistoric Migrations in Europe*. Oslo.
- Childe, V G 1958 'Valediction', *Bull Inst Archaeol*, 1 (1958), 1–8.
- Clark, J G D 1966 'The invasion hypothesis in British Archaeology', *Antiquity*, 40 (1966), 172–89.
- Clarke, D V 1970 'Bone dice and the Scottish iron age', *Proc Prehist Soc*, 36 (1970), 214–32.
- Clarke, D V 1971 'Small finds of the Atlantic Province: problems of approach', *Scottish Archaeol Forum*, 3 (1971), 22–54.
- Clark, R M 1975 'A calibration curve for radiocarbon dates', *Antiquity*, 49 (1975), 251–66.
- Collis, J 1977 'An approach to the Iron Age', in Collis, J (ed) 1977, 1–7.
- Collis, J (ed) 1977 *The Iron Age in Britain – a review*. Sheffield.
- Crawford, I & Switsur, R 1977 'Sandscaping and C14: the Udal, N. Uist', *Antiquity*, 51 (1977), 124–36.
- Cunliffe, B W 1978 *Iron Age Communities in Britain*, 2 ed. London.
- Cunnington, Margaret E 1923 *The Early Iron Age Inhabited Site at All Cannings Cross Farm, Wiltshire*. Devizes.
- Davies, W 1982 *Wales in the Early Middle Ages*. Leicester.
- Edwards, A J H 1924 'Report on the excavation of an Earthhouse at Galson, Borve, Lewis', *Proc Soc Antiq Scot*, 58 (1923–24), 185–203.
- Fairhurst, H 1984 *Excavations at Crosskirk Broch, Caithness*. Edinburgh. (= *Soc Antiq Scot Monogr Ser*, 3.)
- Fojut, N 1980 *The Archaeology and Geography of Shetland Brochs*. Unpublished Ph D thesis, Glasgow University.
- Fojut, N 1981 'Is Mousa a broch?', *Proc Soc Antiq Scot*, 111 (1981), 220–8.
- Fojut, N 1985 'Some thoughts on the Shetland Iron Age', in Smith, B (ed), *Shetland Archaeology*, Lerwick, 47–84.
- Graham-Campbell, J 1980 *Viking Artefacts, A Select Catalogue*. London.
- Guido, Margaret 1978 *The Glass Beads of the Prehistoric and Roman Periods in Britain and Ireland*. London.
- Hamilton, J R C 1968 *Excavations at Clickhimin, Shetland*. Edinburgh.
- Harding, D W 1982 'The Iron Age in Northern Britain: Retrospect and Prospect', in Harding, D W (ed), *Later Prehistoric Settlement in South-East Scotland*, Edinburgh, 1–3.
- Hawkes, C F C 1959 'The ABC of the British iron age', *Antiquity*, 33 (1959), 170–82.
- Hedges, J W 1987 *Bu, Gurness and the Brochs of Orkney*, Part I : *Bu*. Oxford. (= *Brit Archaeol Rep*, 163.)
- Henshall, Audrey 1950 'Textiles and weaving appliances in prehistoric Britain', *Proc Prehist Soc*, 16 (1950), 130–62.
- Henshall, Audrey 1979 'Artefacts from the Round House', in Renfrew, C, *Investigations in Orkney*, London, 188–92. (= *Rep Res Comm Soc Antiq London*, 38.)
- Hodder, I 1978 'Simple correlations between material culture and Society : A review', in Hodder, I (ed), *The Spatial Organization of Culture*, London, 3–24.
- Hodder, I (ed) 1982a *Symbolic and structural archaeology*. Cambridge.
- Hodder, I 1982b *Symbols in Action, Ethnoarchaeological Studies of material culture*. Cambridge.

- Hodder, I 1982c *The Present Past*. London.
- Hodder, I & Hedges, J W 1977 ‘“Weaving combs”: their typology and distribution with some introductory remarks on date and function’, in Collis, J (ed) 1977, 17–28.
- Hodson, F R 1962 ‘Some pottery from Eastbourne, the “Marnians”, and the pre-Roman iron age in southern England’, *Proc Prehist Soc*, 28 (1962), 140–55.
- Hodson, F R 1964 ‘Cultural groupings within the British pre-Roman Iron Age’, *Proc Prehist Soc*, 30 (1964), 99–110.
- Joep, E M & Wilson B C S 1957 ‘A burial group of the first century AD near Donaghdee, Co. Down’, *Ulster J Archaeol*, 20 (1957), 73–95.
- Lamb, R G 1980 *Iron Age promontory forts in the Northern Isles*. Oxford. (= *Brit Archaeol Rep*, 79.)
- Lane, A M 1983 *Dark-age and Viking-age pottery in the Hebrides, with special reference to the Udal, North Uist*, unpublished PhD thesis, University of London.
- Lethbridge, T C 1952 ‘Excavations at Kilpheder, South Uist, and the problem of Brochs and Wheel-houses’, *Proc Prehist Soc*, 11 (1952), 176–93.
- Longley, D & Needham, S 1980 *Runnymede Bridge 1976: Excavations on the site of a Late Bronze Age Settlement*. (= *Surrey Archaeol Soc Res Vol*, 6.)
- MacKie, E W 1963 ‘A dwelling site of the Earlier Iron Age at Balevullin, Tiree, excavated in 1912 by A Henderson Bishop’, *Proc Soc Antiq Scot*, 96 (1962–3), 155–83.
- MacKie, E W 1965a ‘The origin and development of the Broch and Wheelhouse Building Cultures of the Scottish Iron Age’, *Proc Prehist Soc*, 31 (1965), 93–146.
- MacKie, E W 1965b ‘Brochs and the Hebridean Iron Age’, *Antiquity*, 29 (1965), 266–78.
- MacKie, E W 1965c *Excavations on two ‘Galleried Duns’ on Skye in 1964 and 1965: Interim Report*. Glasgow.
- MacKie, E W 1969 ‘The Historical Context of the Origin of the Brochs’, *Scottish Archaeol Forum*, 1 (1969), 53–9.
- MacKie, E W 1971 ‘English migrants and Scottish brochs’, *Glasgow Archaeol J*, 2 (1971), 39–71.
- MacKie, E W 1972 ‘Some new quernstones from brochs and duns’. *Proc Soc Antiq Scot*, 104 (1971–2), 137–46.
- MacKie, E W 1974 *Dun Mor Vault An Iron Age Broch on Tiree*. Glasgow.
- MacKie, E W 1975 ‘The Brochs of Scotland’, in Fowler, P J (ed), *Recent Work in Rural Archaeology*, Bradford on Avon, 72–92.
- MacKie, E W 1980 ‘Dun an Ruigh Ruaidh, Lochbroom, Ross and Cromarty: excavations in 1968 and 1978’, *Glasgow Archaeol J*, 7 (1980), 32–89.
- MacKie, E W 1983 ‘Testing hypotheses about brochs’, *Scot Archaeol Rev*, 2 (1983), 117–28.
- Megaw J V S & Simpson D D A (eds) 1979 *Introduction to British Prehistory*. Leicester.
- Miller, D 1982 ‘Structures and strategies: an aspect of the relationship between social hierarchy and cultural change’, in Hodder, I 1982a, 89–98.
- Orme, Bryony 1982 ‘The use of radiocarbon dates from the Somerset Levels’, in Orme, B (eds), *Problems and Case Studies in Archaeological Dating*, Exeter, 5–34. (= *Exeter Stud Archaeol*, 1.)
- Padel, O J 1972 *Inscriptions of Pictland*. (Unpublished MLitt Thesis, University of Edinburgh.)
- Piggott, S 1955 ‘The Archaeological Background’, in Wainwright, F T (ed), *The Problem of the Picts*, Edinburgh, 54–65.
- Piggott, S 1966 ‘A scheme for the Scottish iron age’, in Rivet 1966, 1–15.
- Raftery, B 1984 *La Tène in Ireland. Problems of Origin and Chronology*. Marburg.
- Raftery, B 1981 ‘Knobbed Spear butts of the Irish Iron Age’, in Scott, B G (ed), *Studies on Early Ireland*, Belfast, 75–92.
- Ralston, I B M 1979 ‘The iron age: northern Britain’, in Megaw & Simpson 1979, 446–501.
- Renfrew, C 1973 *Before Civilisation: the Radiocarbon Revolution and Prehistoric Europe*. London.
- Renfrew, C 1979 *Investigations in Orkney*. London. (= *Res Comm Soc Antiq London*, 38.)
- Ritchie, J N G & Lane A M 1980 ‘Dun Cul Bhuirg, Iona, Argyll’, *Proc Soc Antiq Scot*, 110 (1978–80), 209–29.
- Rivet, A L F (ed) 1966 *The Iron Age in Northern Britain*. Edinburgh.
- Ross, Anne 1967 *Pagan Celtic Britain*. London.
- Sandars, Nancy K 1957 *Bronze Age Cultures in France*. Cambridge.
- Savory, H N 1937 ‘An Early Iron Age Site at Long Wittenham, Berks’, *Oxoniensia*, 2 (1937), 1–11.
- Scott, L 1947 ‘The problem of the Brochs’, *Proc Prehist Soc*, 13 (1948), 1–36.

- Scott, L 1948 'Gallo-British Colonies. The Aisled Round-House Culture in the North', *Proc Prehist Soc*, 14 (1948), 46–125.
- Sellwood, L 1984 'Objects of bone and antler', in Cunliffe, B, *Danebury: an Iron Age hillfort in Hampshire*, London, 371–95. (= *Counc Brit Archaeol Res Rep*, 52.)
- Sharples, N M 1984 'Excavations at Pierowall Quarry, Westray, Orkney', *Proc Soc Antiq Scot*, 114 (1984), 75–125.
- Spratling, M G 1979 'The debris of metal working', in Wainwright, G S, *Gussage All Saints. An Iron Age Settlement in Dorset*, London, 125–49.
- Stevenson, R B K 1966 'Metal-work and some other objects in Scotland and their cultural affinities', in Rivet (ed) 1966, 17–44.
- Stuiver, M & Pearson, G W 1986 'High-Precision Calibration of the Radiocarbon Time Scale, AD 1950–500 BC', *Radiocarbon*, 28 (2B), 805–38.
- Thomas, C 1961 'The Animal Art of the Scottish Iron Age and its Origins', *Archaeol J*, 118 (1961), 14–64.
- Tierney, J J 1960 'Celtic Ethnography of Posidonius', *Proc Roy Ir Acad*, 60 C (1960), 189–275.
- Trigger, B 1978 *Time and Traditions*. Edinburgh.
- Wainwright, F T 1963 *The Souterrains of Southern Pictland*. London.
- Wainwright, G J 1967 *Coygan Camp*. Cardiff.
- Warner, R B 1976 'Some observations on the context and importation of exotic material in Ireland, from the first century BC to the second century AD', *Proc Roy Ir Acad*, 76 (1976), 267–92.
- Warner, R B 1983 'Ireland, Ulster and Scotland in the Earlier Iron Age', in O'Connor, A & Clarke, D V (eds), *From the Stone Age to the 'Forty-Five*, Edinburgh, 160–87.
- Watkins, T 1980a 'Excavation of an Iron Age open settlement at Dalladies, Kincardineshire', *Proc Soc Antiq Scot*, 110 (1978–80), 122–64.
- Watkins, T 1980b 'Excavation of a settlement and souterrain at Newmill, near Bankfoot, Perthshire', *Proc Soc Antiq Scot*, 110 (1978–80), 165–208.
- Wheeler, R E M 1943 *Maiden Castle, Dorset*. Oxford. (= *Rep Res Comm Soc Antiq London*, 12.)
- Young, Alison 1966 'The sequence of Hebridean Pottery', in Rivet (ed) 1966, 44–58.