

Typology and chronology in the later prehistoric pottery assemblages of the Western Isles*

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SUMMARY

A re-examination of the pottery from major sites in the Western Isles, taking into account the problems of calibration of the C14 dates and the dating of the small finds, suggests that typologies based on form and decoration are over-simplistic.

INTRODUCTION

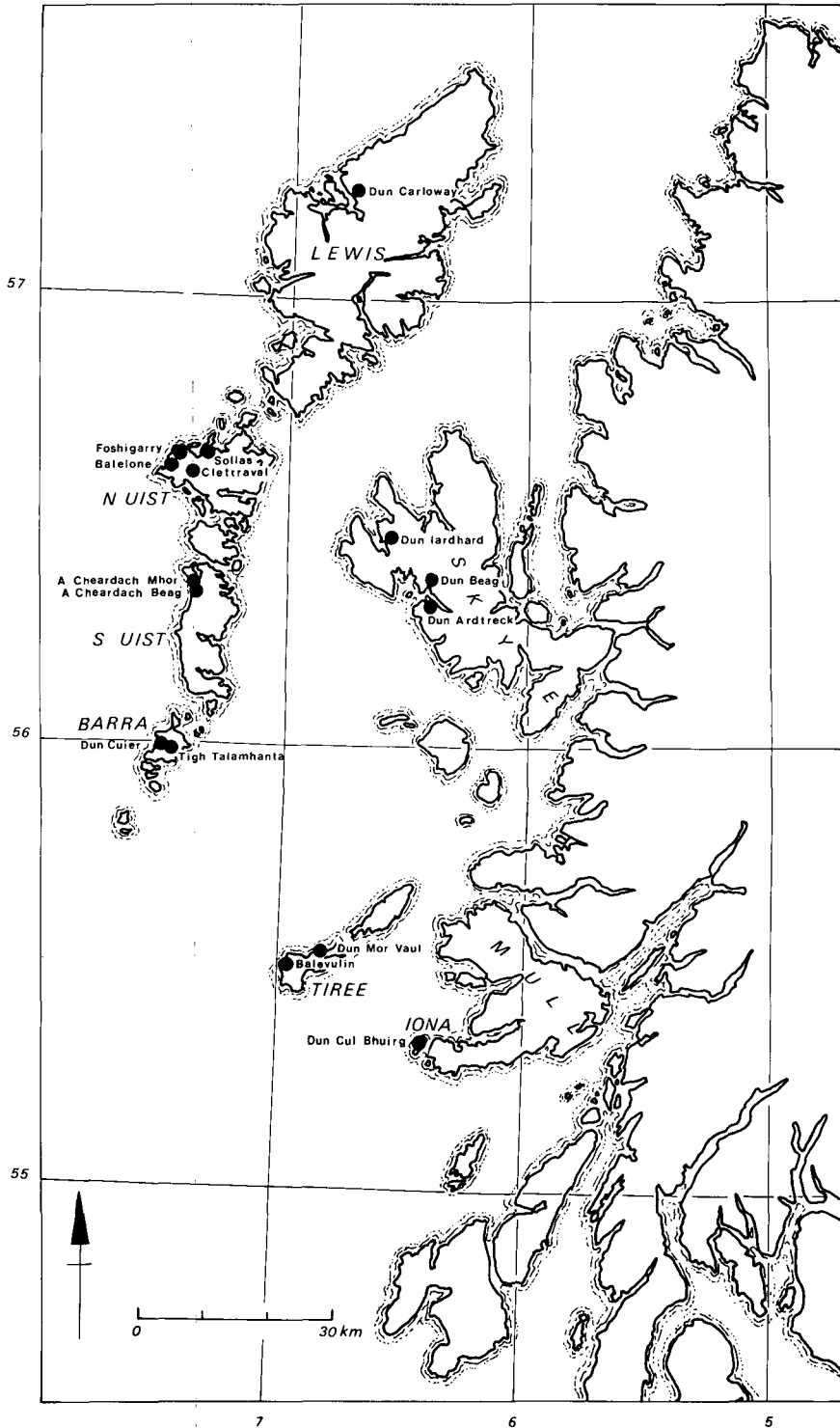
The primary interest in the later prehistoric period in the Western Isles¹ of Scotland has traditionally lain in the examination and description of its structures. During more recent years attention has swung towards analysis of the function of sites and towards a re-examination of the small finds. Study of the small find classes indicated that the pottery might contain potential for further research, because it was ubiquitous in the archaeological record and had previously been used as an indicator of differentiation in function, a physical proof of trade/exchange links and had been heavily relied on for chronological definition. Research was undertaken to examine if the pottery was capable of supporting the chronological and cultural models which were currently being derived from it; this was achieved by using a computerized database of pottery sherds and their contexts from most of the major sites in the Western Isles (illus 1). The conclusion was reached that the traditional pottery typologies, based on decoration and form, were over simplified and offered a more structured framework of chronological horizons and wares than really existed in the archaeological record.

THE ESTABLISHED TYPOLOGIES

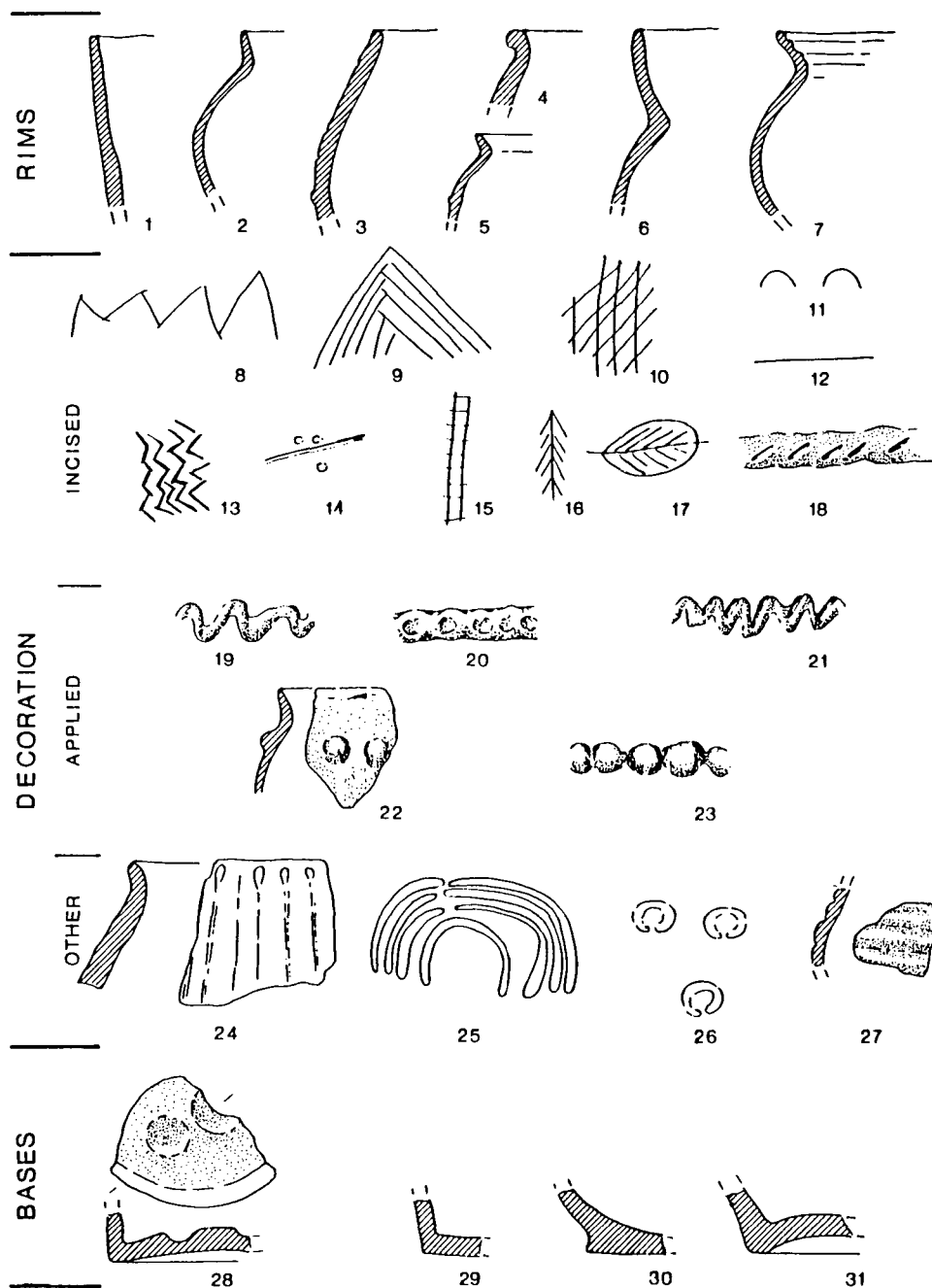
The pottery types which occur during the later prehistoric period in the Western Isles are in form and decoration largely distinct from those of the Scottish mainland only some few miles to the east. Mrs Alison Young traced what she saw as the development of certain of the decorative types from the Neolithic pottery of the islands and this, in coincidence with the supposed sequence from the wheelhouse site of Cleittraval (Scott 1948), led her to ascribe incised decoration to the earlier Iron Age. The decorative types included incised dot, chevron, lattice, herringbone and the application of small clay bosses or rondels to the vessel exteriors (Young 1966, 48). These, and other decorative styles and vessel forms, are shown in stylized form in illus 2a and 2b. Mrs Young defined two of the purely Iron-Age developments as being the stamping of vessel exteriors with bronze ring pins and the

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ILLUS 1 The major Hebridean sites from which pottery was examined



ILLUS 2 Stylized vessel decoration and form.

Rims: (1) Straight, (2) Upright, (3) Incurving, (4) Rolled, (5) Everted, (6) Flaring, (7) Fluted; *Decoration, incised:* (8) Chevron, (9) Nested chevron, (10) Lattice, (11) Eyebrow, (12) Line, (13) Herringbone, (14) Line and dot, (15) Ladder, (16) Feather/fir tree, (17) Leaf, (18) Slanting nicks; *Decoration, applied:* (19) Wavy/zigzag cordon, (20) Fingertip impressed cordon, (21) Thumbnail impressed cordon, (22) Applied boss, (23) Cordon in chain pattern; *Decoration, other:* (24) Stab and drag, (25) Channelled arches, (26) Ring-pin stamping, (27) Rilled; *Bases:* (28) Bottom thumb-impressed, (29) Flat, (30) Footed, (31) Omphalos

application of curved finger-channelled grooves, often in double or triple format. Later developments were the appearance of vessels with sharply everted rims and which often displayed an applied wavy cordon at the point of maximum girth. In some cases these vessels also bore double or triple arched grooved lines above the cordon; a type which occurred in some numbers at Cletraval. She believed the end point in the sequence was delineated by the occurrence of plain vessels with no decoration and weak upright or flaring rims.

The distinction between incised and everted rim pottery was also drawn by Dr MacKie who dated the occurrence of the vessel forms to the period 600 BC to AD 400 (MacKie 1971a, 843). On the basis of his excavations at Dun Mor Vul, and on other field work conducted by him, he recognized the presence of six main vessel types with differing cultural origins. His models accounting for the occurrence of several of the styles were strongly diffusionist, although he identified the earliest elements in the sequence as being represented by the small cordoned vases from Balevullin, Tiree. These latter he thought were derived from the late Neolithic pottery of the Western Isles. He believed that other sherds within the Balevullin assemblage bore close resemblance to later prehistoric pottery from eastern England.

The other main pre-broch type of pottery was identified as 'Vaul' ware and was recovered in the lower levels of the pre-broch hut at Dun Mor Vul, Tiree (MacKie 1974). This ware was characterized by barrel-shaped urns of hard smooth clay and by smaller vases bearing incised geometric patterns. Sherds of this type were, however, not just recovered in the early levels, but throughout all the occupation levels of the site, and were thus considered to have outlasted other pottery styles. The third type of pre-broch pottery was identified by MacKie as 'Abernethy' ware, on account of its occurrence in forts on the mainland. Sherds of this bucket-shaped, coarse gritty type were also found in the early levels of Dun Mor Vul and more recently have become more widely known as 'Dunagoil' ware (MacKie 1974, 157).

Amongst several varieties of everted rim pottery which were distinguished as distinctive types was 'Clickhimin' ware. This pottery type is identified by horizontal fluting on the internal part of the everted rim and was first noted in the early levels of the fort at Clickhimin, Shetland. Pottery of a similar type was recovered from Dun Ardtreck, Skye and was considered to bear similarities to material from both south-west England and northern France, in particular late Bronze-Age Urnfield material. Other Urnfield elements could be traced in Hebridean pottery characterizing the fifth pottery grouping. In particular MacKie drew attention to the similarities between an internally thumb-impressed base from A'Cheardach Mhor, South Uist and a base from the Grotte de Nermont, Burgundy (1971a, 844). Another Urnfield characteristic which it was claimed could be found on Hebridean pottery was the presence of rilling on the shoulder of the vessel and examples were noted from both Dun Ardtreck and Dun Mor Vul.

The sixth pottery type was another everted rim style, one which was labelled 'Cletraval' ware on account of its occurrence at that site. The essential features have already been described, namely an everted rim and an applied wavy cordon with finger-channelled arches above. At Dun Mor Vul it was first identified as occurring in the broch construction levels and the inspiration for the channelling was accredited to the transference of ceramic traits from south-western Britain.

THE IDENTIFICATION OF INTRUSIVE INFLUENCES

Gordon Childe was one of the first to note similarities of small artefacts classes between south-western Britain and western Scotland (1935). In terms of pottery styles these similarities were expanded upon by Sir Lindsay Scott following his excavation of Cletraval, North Uist (Scott 1948). Dr MacKie has largely been responsible for the subsequent development of this hypothesis, not just

in relation to pottery styles, but to other artefactual types as well. The validity of this approach has not gone without challenge (Clarke 1971), so that currently the belief in the diffusion of traits from south-western Britain to Atlantic Scotland has not won any broad acceptance and in particular the wisdom of choosing hyper-selected points of similarity between the ceramic assemblages has been criticized (Alcock 1984, 17). As a general point, it is not that contacts with areas external to the Western Isles of Scotland are unlikely, rather that the provision of evidence for the argument requires more rigorous treatment than that which has traditionally been applied and that ideographic reconstructions of historical processes are not the form of justification which is required.

CHRONOLOGY

Few radiocarbon dates exist for pottery collections of this period in western Scotland, and hence dating for many sites has in the past had to rely on parallels, both of vessel types and decoration. This situation also extends, for most sites, to many of the classes of associated artefacts which are found in conjunction with the pottery. It seems particularly futile, however, to argue dating from pottery types from other sites, if the dates themselves are derived from yet further sites where the chronology has been deduced from a starting point of poor stratigraphy or tenuous analogy of other artefact classes. Thus, while guidelines have in the past been argued from the pottery of other sites, many stylistic features having an apparently long sequence of development and use, a chronology is best not constructed where there is a danger of circular argument.

The problems of the chronology of the Hebridean later prehistoric pottery sequence can be highlighted by a brief examination of two artefact classes and a reconsideration of the published C14 dates. The artefact types are bronze ring-headed pins and glass beads, particularly the small, yellow vitreous beads of Guido's Class 8 (Guido 1978).

Of the varied forms of sherd decoration it is understandable that the ring-pin-stamped vessels would seem to be the most valuable in dating assemblages, since by their nature the vessels must have been manufactured during a period when the particular type of pin was in use. The situation is complicated, however, by the long period of usage of such pins, so that while ring-pin-stamping was once thought to be a decorative technique in use during the second century AD (Young 1953, 104) and does occur at Dun Ardtreck, Skye in the dun interior in Phase III (MacKie, unpublished proofs, fig 8, no 31), where Roman coarse and samian wares occur in Phases II/III contexts, it is now clear from the excavations at Dun Mor Vaul, that ring-pin-stamping was potentially applied to vessels prior to the middle of the first millennium BC (MacKie 1974, 128).

Obviously an important consideration is the type of the pin involved in the production of the decoration. Two distinct classes can be identified; shouldered ring-headed pins and pins whose ring is movable. It was once thought that the latter was derived from the former (Young 1953, 94) but this is no longer so certain (Fanning 1983, 330); rather it would seem that the projecting ring shouldered pin evolved separately into the hand pin form. The ring-pin-stamped sherd from Eye, Lewis demonstrates that the decorative theme has a long lifespan, as the type of pin used in this particular case was not present in Scotland until the Viking period (*ibid*, 331). The spiral ring-head pin from Phase IV at A'Cheardach Mhor was dated to the seventh–eighth centuries AD by the excavator (Young & Richardson 1960, 158). It had a perforated head which had been shaped and grooved and a plain bronze ring. Given the evidence of similar types from Ireland this date seems not unreasonable (Fanning 1983, 325). Thus ring-pin stamping, with heads of either type, can be seen to have been in use in the Western Isles over a period of a millennium. With this being the case, it is clear that the identification of the exact form of the pin is crucial and unfortunately in most instances the impression

is too indistinct or too badly eroded for this to be discerned. The value of such pins in defining a chronological label to apply to the pottery typology is clearly dubious.

Small yellow annular beads of Guido's Class 8 type have been found on many Hebridean sites. Two were recovered at Dun Cul Bhuirg (Ritchie & Lane 1981), seven were found at Dun Mor Vul (MacKie 1974, 147–8), three at Tigh Talamhanta (Young 1953, 104), two at A'Cheardach Mhor (Young & Richardson 1960), one at Dun Iardhard (MacLeod 1915), and four or more from Dun Ardtreck. This type of yellow bead has a wide geographical distribution throughout the British Isles, with examples coming from Cornwall to Shetland (Guido 1978, 179–82). Generally dates from the first century BC to the second century AD seem preferred although some examples may date to the third century BC (Ritchie & Lane 1980, 219). The problem, as Clarke has highlighted (1971), is that such an exotic small find type may have a widespread chronological period of use and that the extrapolation of dates from southern Britain to the Western Isles is a task for the unwary or uncritical. This is especially so when the contexts for many of the finds are vague and in sites where long chronological episodes of occupation have led to mixing of discrete layers. Methodologically the use of such beads can be seen to be open to question; this is all the more so in an area where absolute dates are largely lacking. The implication is that dates for pottery styles which are derived from associations with such 'dated' objects are equally spurious.

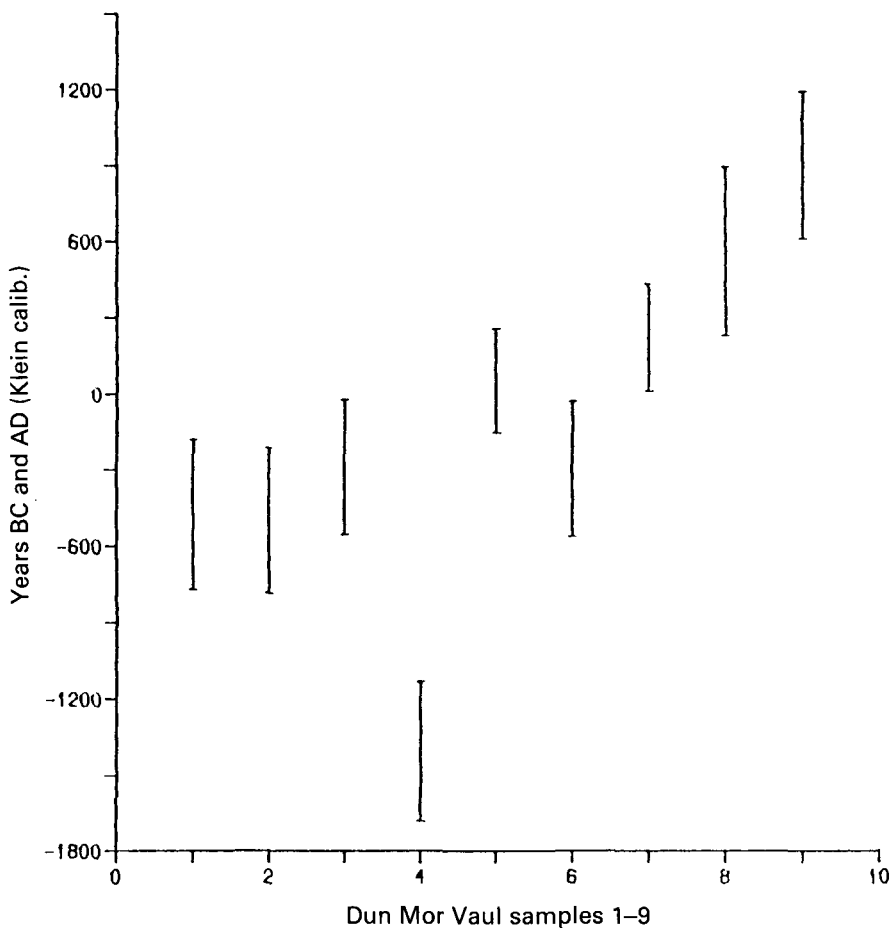
A number of sites have published C14 dates; the value of these for ascribing date ranges remains to be examined. Dun Mor Vul has been one of the more important excavations of a later prehistoric structure in the Western Islands, because in addition to providing a stratified sequence of pre-broch, broch and post-broch occupation, it also provided a series of C14 dates for these levels. The dates and the samples from which they were derived were examined in some detail by the excavator (MacKie 1974, 228–31) and were used by him to support the differentiation of the periods of the site's usage which had originally been indicated by the stratigraphy. The precision and accuracy of the C14 dates and the excavator's use of them require examination, both in general and in some cases in the particular context, before their wider implications for the dating of artefacts recovered from the same levels can be discussed. It must be made clear, however, that although criticisms can be made on both the above counts, the value of the dates and the excavator's presentation of them were not contrary to the state of the art in the 1960s and early 1970s, and any comment which may be passed now is a reflection of the developments within the field.

There are various difficulties to consider in the interpretation of the dates. Only one result was obtained from the samples chosen from each of the archaeological levels, thus restricting any statistical cross-checking which might be possible on the 'tightness' of the spread of each interval. The quoted standard deviations given for each sample are large, in the range of ± 80 up to ± 200 years; the dates of the samples analysed can thus only be given within very broad time bands. Even these standard deviations are probably too small, as they take into consideration only counting errors (Baillie & Pilcher 1983, 51). Other factors which affect the accuracy of a date, such as laboratory bias, would increase the boundaries within which the date ultimately lies. The final problem which applies to these, and to any C14 date, is calibration from years bc and ad to real years. On the whole this has been a case of matching C14 dates from wood samples, to dendrochronological years derived from tree rings, with subsequent production of calibration curves (eg Clark 1975; Klein *et al* 1982). The original calibration of the Dun Mor Vul dates was vastly over simplified, giving impossibly precise dates for each of the samples. It was also unfortunate that the statistical procedures applied (Ralph *et al* 1973) were founded on incorrect statistics (Clark 1975, 257).

The samples taken from the various levels within the site have been recalibrated according to tables published by Klein *et al* (1982) (table 1). The date spans from which the C14 dates could have been derived are calculated at two standard deviations, ie there is a 95% probability that each of the

TABLE 1
Dun Mor Vaul C14 samples with real years calibrated according to Klein *et al* (1982)

No	Context	Phase	Material	Date bp	Real years
1	Epsilon 2	Early 1A	Roots	2350±110	770–180 BC
2	Eta 2	1A	Grain	2395±90	785–215 BC
3	Nu 2	1B	Bone	2230±100	555–25 BC
4	Alpha 4	2B	Charcoal	3145±90	1680–1130 BC
5	Alpha 2	2B	Charcoal	1890±90	155 BC–AD 255
6	Tau	End of 4	Charcoal	2240±80	565–30 BC
7	Gamma 6	5	Charcoal	1790±90	AD 10–430
8	Gamma 2	5 Norse	Jawbone	1460±200	AD 225–890
9	Phi	5 Norse	Human bone	1145±155	AD 605–1185



dates lies within the real years bracket, BC or AD quoted. Table 1 gives a better impression of the degree of overlap which statistically exists between any two or more of the dates. The tables offered by Klein *et al* were used as they were believed to provide one of the better calibrations (Harkness 1983, 26), although the accuracy of any of the existing tables is still a matter of concern for the 'flat' part of the curve in the period 400–800 BC (Baillie & Pilcher 1983, 58–60).

Table 1 demonstrates that apart from sample 4 from Dun Mor Vault, all the other C14 dates can be seen to overlap with at least one other, by implication any which do overlap can in fact have come from a sample of the same real age. Sample 4 was rejected as an outlier by the excavator as having been derived from peat charcoal, and thus being too old for the broch construction context in which it occurred; this seems a reasonable conclusion. The first comment which may be passed on the rest of the dates is that the recalibration gives them all a much wider real year equivalent than was originally perceived; this has the effect of both removing the difficulty which was experienced by MacKie in the explanation of some samples and of lessening the value of others in the accurate definition of the site's periods of use and change of function.

The pre-broch occupation can be dated by samples 1–3, thus the first hut on the site (Phase 1A) seems to have been occupied at some stage between the eighth and early second centuries BC. The date associated with sample 2, however, may have a wider chronological spread than even that allowed for in the Klein *et al* calibration tables, owing to its being derived from charred grain. The grain, presumably coming from a single year's crop, does not give the date added reliability, as the excavator thought (MacKie 1974, 229), but rather, owing to the 'sunspot effect', the error associated with the date should be increased (Clark 1975, 257). The second phase of occupation in 1B potentially occurred very soon after the first, from the mid-sixth, although, indeed perhaps not until the early first century BC. The sample from context Alpha 2 ought to date the early period of use of the broch itself, and this can be seen to be between the mid-second century BC and the mid-third century AD. This date is also supported by the Roman glassware of the period AD 160–250 from the Iota deposits in the broch interior.

The date from sample 6, context Tau in the broch outer court phase 4B, was considered anomalous by MacKie, because under his calibration it represented an age of 410 BC. Under recalibration its span is extended to 565–30 BC, which is still inconsistent with the date ascribed to the broch for phase 4B based on the finding of Roman material in other contexts. It may be that it was from old charcoal, although as he stated there was no evidence for this (MacKie 1974, 230), or that it is a statistical outlier, one of the one in 20 dates which probability indicates lie outside two standard deviations. It could also be, however, that Tau is not in entirety a phase 4B context. The context relates to no well stratified layer or structure, but rather represents what appears to be an arbitrary division of the first 6" (15 cm) of topsoil from the court, and although it contains no obviously identifiable early artefacts, on this as on any excavation, it would not be surprising if such a context did contain material from widely differing chronological horizons.

The recalibration of the C14 dates throws some light on problems which the excavator believed to exist. Date 7, from context Gamma 6, was obtained from charcoal in a rubble occupation layer and was originally believed to be too early by MacKie, as it was clear from the Roman material that the site was probably used after the second century AD. After recalibration, however, this date has a span from AD 10 to 430 and thus the problem no longer exists. Similarly the date of AD 540 for the bovine lower jaw associated with a Norse bone comb, in context Gamma 2, also seemed too early; from table 1 it can be seen that this could date to any time between the early third and the late ninth century, so this anomaly also need no longer exist. The final C14 date was for a burial in the rubble in the centre of the broch (context Phi) and this can be seen to be confirmed as early medieval.

The implications of the C14 date recalibration for the pottery from the site apply mainly to the material from the early contexts. The effect can be seen to widen greatly the chronological span in which the hut sites, in particular, were occupied; no longer can they be envisaged as probably of fifth-century BC date. The new dates demonstrate the possibility of ring-pin stamping and everted rim ware existing in the eighth century; this is potentially much earlier than previously envisaged. It also indicates the possibility that the current later prehistoric chronology for pottery and associated

structures is too compressed. However, some caution is perhaps advisable given the mixed nature of many of the deposits (MacKie 1974, 45 and in particular 130).

More recently C14 dates have been obtained for the eroding midden and possible wheelhouse site of Balelone, North Uist which has been excavated by the Central Excavation Unit of the Scottish Development Department (CEU). The dates were taken from samples obtained from block 1026 (GU-1801), block 1006 (GU-1802) and block 1005 (GU-1803). These respectively are from: zone 3a, the early occupation; zone 3e, the cultivation and zone 3b, the erosion pits. It had originally been hoped that the dates would be sufficiently far apart in years BC and AD for the sampling of the intermediate contexts to be a viable proposition; the closeness of the calibrated dates, however, shows that this would not have been of value. The three C14 dates were derived from shell samples and consequently the 'reservoir' effect has to be taken into consideration before calibration, as the immediate marine environment in which the shellfish lived is believed to have had an 'apparent age' ranging from about 300 to 600 years. This consideration entails that the confidence intervals in real years within which any date is expressed are bound to be much greater than those for conventional dates and this range is demonstrated in table 2.

Given the misuse which there has been of C14 dates from other sites in the Western Isles, it would seem correctly cautious to approach the calibration of the Balelone series with a view to obtaining a date range which can be argued as justified at the expense of being broad. Thus for the three samples the date ranges which should perhaps be considered are those provided by the lowest 300 year and highest 600 year reservoir effect. The sample from block 1026 of early occupation is thus dated to between 180 BC and AD 430, from block 1006 of cultivation between 165 BC and AD 455, and from block 1005 of erosion from 405 BC to AD 395. It can thus be seen that statistically the three date ranges could have been derived from samples of the same real year age. Individually, however, when taken in regard to the contexts from which they were derived it can be argued that the period of the dated potential usage of the site is from the early second century BC to the mid fifth century AD. This generally confirms, but does not refine, the chronology which would be suggested by the general pottery sequence on the evidence of other Western Isles sites. The problem is that the calibrated range of the dates is just too large to refute conclusively the evidence from other sites.

At Dun Carloway, Isle of Lewis (Tabraham 1977) a sample of mollusc shell was taken from the upper levels immediately above the latest ash layer. It was unfortunate that it was the only sample and sample type which could be obtained, because its context, being mixed with modern trample and with the added statistical uncertainties of the 'reservoir effect' of the marine environment, mean that its value in dating the pottery sequence is limited. The sample (GX-3428) was calibrated by the excavator to AD 1400 ± 150 (Tabraham 1977, 160); this is almost certainly too precise. As noted for the samples from Balelone, North Uist, the reservoir effect of samples from marine environments gives a spurious age of between 300 and 600 years to C14 dates. This is a greater chronological error span than that allowed for in the Dun Carloway date and a recalibration is necessary. This was achieved by converting the Geochron Laboratories' date to the Libby half-life, subtracting the reservoir effect figures and then calibrating on the Klein *et al* calibration curve (Klein *et al* 1982). The exact allowance for the apparent age of seawater is not known, but it seems prudent to assume an effect at the greater end of the scale; accordingly as can be seen in table 3, the recalibrated date for Dun Carloway ought to lie between AD 1325 and 1950 at the two sigma confidence level.

On Skye a sample for C14 dating (GX-1120) was obtained from charcoal in the rubble foundations of Dun Ardtreck. The context was deposited prior to the erection of the dun. The date which this was derived from was 2005 ± 105 bp (MacKie 1969a, table 1) and, although calibrated by MacKie to between 325 BC and AD 95 (MacKie 1969c, 56), has been used to support a date of the first century BC/AD for the date of the site's construction and of the glass beads contained within it (Guido

TABLE 2
The calibration of the C14 dates from Balelone, North Uist (Klein *et al* 1982)

Block and zone	Years bp and ad	300 year reservoir effect	600 year reservoir effect
GU-1801 Block 1026 Zone 3a	2330 ± 70	180 BC–AD 195	AD 65–AD 430
GU-1802 Block 1006 Zone 3e	2290 ± 60	165 BC–AD 210	AD 85–AD 455
GU-1803 Block 1005 Zone 3b	2440 ± 80	405 BC–AD 30	20 BC–AD 395

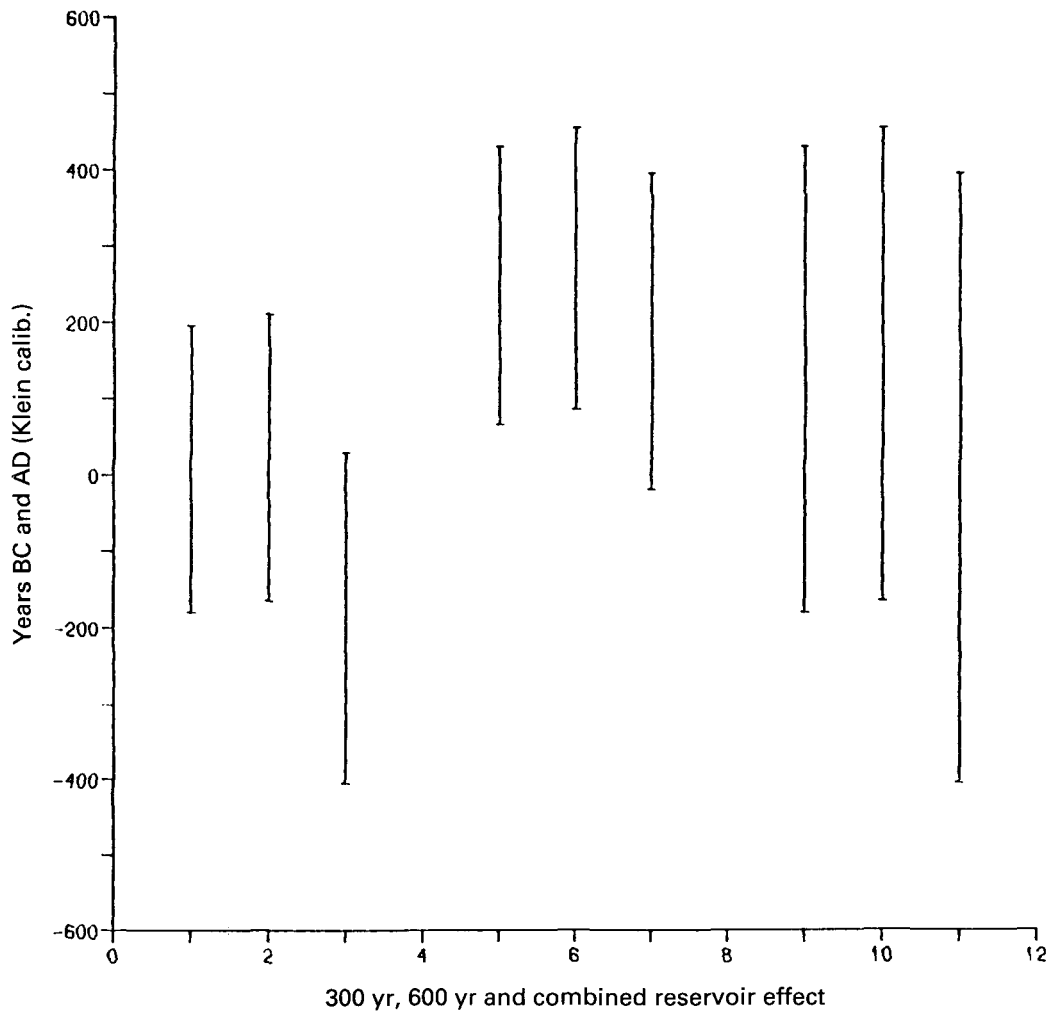
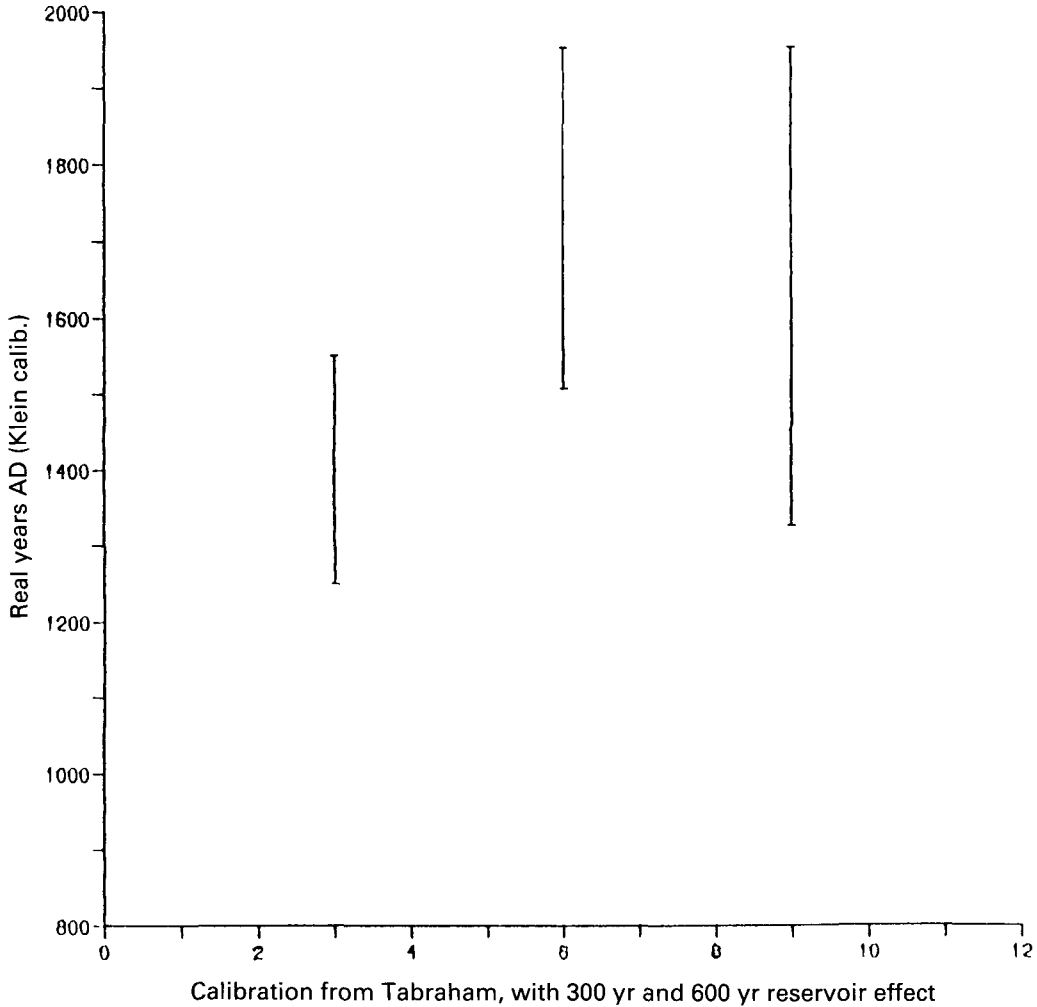


TABLE 3
Calibration of the C14 date from Dun Carloway, Lewis (Klein *et al* 1982)

Geochron Lab sample	Years bp and ad (Libby)	300 year reservoir effect	600 year reservoir effect
GX-3428	688±150	AD 1325-1950	AD1505-1950

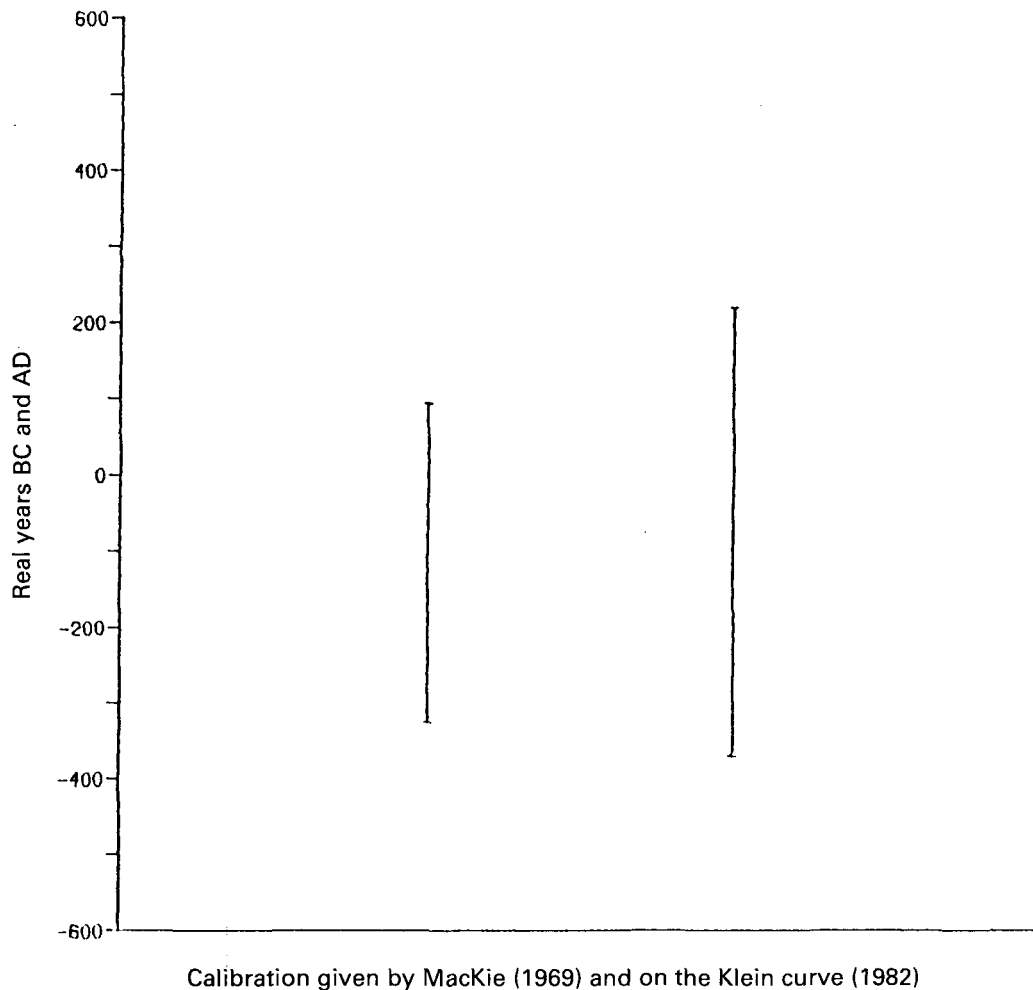


1978, 88 and 172). Calibration by the curve produced by Klein *et al* (1982), however, gives a range of 370 BC to AD 220 (table 4) for the site's construction. Clearly this cannot be taken as proof of either site belonging to the first century BC or AD, or as evidence for this dun or of 'semi-brochs' in general being broch progenitors as has been argued (MacKie 1969c, 56).

It is of course a relatively easy matter to examine almost any area within Scotland and critically review and reject dating evidence which has been utilized in the past. The more challenging task is to

TABLE 4
The calibration of the C14 date from Dun Ardreck, Skye

Geochron Lab sample	Years bp and ad (Libby)	Calibrated by MacKie (1969c)	Calibration on Klein <i>et al</i> Curve (1982)
GX-1120	2005 ± 105	325 BC-AD 95	370 BC-AD 220



appraise the assemblage typology to which the dates derived from other artefacts are being applied. As there are problems with any small find sequence so one might expect to find flaws in the established pottery sequence for the Western Isles. It can be argued, however, that the pottery typology is itself so fatally flawed as to make the search for dates to apply to it a thankless and not necessarily useful pursuit. The comments which follow apply to published sites or to those which, although unpublished, are accessible to research. In the study which was involved in this paper it was particularly regretted that it was not possible to examine the material from the Udal, North Uist. It is

largely from research as opposed to rescue excavations that valuable information will be derived. The salvaging of information from eroding sites has the disadvantage that the reason for the excavation may be the same as the process which has destroyed the clarity of the site's stratigraphy and that in any case the ceramic sample is almost bound to be already depleted.

THE HEBRIDEAN LATER PREHISTORIC CERAMIC SEQUENCE

With regard to Mrs Young's sequence, incision was identified as one of the earliest decorative types; this conclusion being based on Scott's analysis of the Cletraval pottery (Scott 1948, table 1). The entering of the extant sherds and their contexts from the site into a computer database has revealed a series of discrepancies which invalidate the originally proposed sequence (Topping 1985). In addition the statistical procedures employed by Scott were themselves weak. The problem is both exacerbated by the small number of Hebridean sites with a well recorded stratigraphy (MacKie 1973, 123) and by the publication in full of only a few of those which once possessed such a potential. At Dun Mor Vul, where a stratigraphic sequence of levels was recorded, incised sherds occurred in all phases of the site's use. The C14 dates from this site, when calibrated, would quite happily give a 1000-year date range for the occurrence of incised decoration. Balelone also had incised vessels in the early occupation levels and in all others up to the surface deposits. In the published site report of A'Cheardach Mhor only the incised pottery occurring in the Phase 1 deposits is illustrated, yet three sherds from different vessels in Phase 3 were also incised. The database has demonstrated that the clarity with which incision could be seen as an early decorative technique is more apparent than real.

If the argument that pure numbers of sherds or vessels in any one phase of any one site indicate changes in style were to be employed, it has to be demonstrated that such changes might not be merely due to fluctuations in the ratios of archaeological survival or to some vagary in the prehistoric society. It may be salutary to note that in southern British Iron-Age contexts a sample size of 1000 sherds is considered too small to be of much statistical worth (Cunliffe 1984, 251). In the Hebrides only sites such as Dun Mor Vul and Sollas have this number of extant sherds (although this is being rectified by more recent work conducted by the CEU and by Edinburgh University), whilst the paucity of detailed records from other sites is crucially detrimental to their value in the debate. It is thus only when a pattern is substantiated from a number of sites in the Western Isles that a genuine trend may be argued. The evidence from Dun Mor Vul, A'Cheardach Mhor and Balelone, for which satisfactory records exist, indicates that incision generally was not just an early decorative technique.

Another decorative feature to which Mrs Young attributed a chronological label was the applied boss and this also was believed to be a Hebridean early Iron-Age trait. Again this view was one originated by Scott at Cletraval where one sherd with an applied boss was recovered from the lower levels. This, however, represented one vessel from 81 in the phase, whereas only 37 and 22 vessels were recovered from the middle and upper levels respectively. Statistically the recovery of a single sherd in the lower levels cannot support the conclusion that applied bosses were specifically an early technique. Two sherds with applied bosses were recovered from A'Cheardach Mhor and both are illustrated as coming from Phase 1 on the site (Young & Richardson 1960, fig 5, nos 17 and 18), yet in the text of the excavation report no 18 is recorded as deriving from disturbed Phase 5 deposits. Two sherds with applied bosses were recovered from Tigh Talamhanta (Young 1953), but although both have area contexts, bay 4/5 and the souterrain respectively, neither has an ascribed phase. Two further sherds with similar decoration were found during the excavation of Dun Iardhard, again their stratigraphic relationship is unknown and beads of both later prehistoric and early historic type were recovered. At Balelone one sherd with an atypical, small applied boss came from the pre-structural levels. A C14 date for the early structural levels can be calibrated, with allowance for the

reservoir effect of marine samples, to between 180 BC and AD 430. Thus it also cannot be used to prove that applying of bosses was an early decorative feature. A third decorative type identified by Mrs Young was the appearance of ring-pin stamping during the later prehistoric period. The problems of the use of ring pins have already been discussed. They still require definition of the period of use to be of much value. These three and every other decorative type can be demonstrated to have a wide potential date range which perhaps lends support to MacKie's belief that the Hebridean pottery needs to be studied in terms of wares, that is combinations of traits, rather than by individual characteristics.

In Dr MacKie's pottery typology a distinction between incised wares and everted rim vessels was advocated. The earliest vessel type identified by him was the small cordoned vase which he envisaged as being descended from Neolithic pottery in the islands. The examples he cited from Balevullin (McKie 1963) are of little value in chronological refinement owing to the miscellaneous and varied nature of that assemblage which contained parts of a flintlock musket. Of more value is the example of the first-century AD context at Dun Ardtreck, but it is clear that if it does represent a discrete type, the cordoned vase has also such a broad period of manufacture as to be of little value in ascribing dates to sites where no other artefactual evidence exists. Another small vase type was Vault ware which occurred at all levels throughout that site and which was a vessel form which included most of the incised pottery from the Western isles, although at its most elaborate it occurred only on Tiree. Its occurrence in every phase at Dun Mor Vault emphasizes the over simplistic nature of the sequence which had been advanced by Sir Lindsay Scott and Mrs Young for incised decoration as a technique. A third specific type which MacKie identified was 'Abernethy' or 'Dunagoil' ware on account of its recovery from mainland later prehistoric forts. It was recovered from the pre-broch levels of Dun Mor Vault and is typified by thick gritty vessels with a general bucket shape. It may well be wondered if such an unremarkable vessel type is really worth definition as a separate ware, especially as its vague features might more adequately be explained by function.

The other major wares which were identified by MacKie were all of everted rim type. He believed the earliest to be 'Clickhimin' ware on account of its occurrence in the pre-broch levels of that site. Its essential characteristics were the distinctive everted rim which in addition possessed horizontal fluting on the rim's interior edge. MacKie identified this vessel form as being the progenitor of all other Hebridean everted rim pottery and outlined a diffusionist model of its transference from western France through immigration. He proposed a date in the first century BC for the arrival of this trait in Atlantic Scotland (MacKie 1974, 159). This was largely upon the absence of everted rim pottery from the pre-broch, Phase 1 levels of Dun Mor Vault. Mrs Young considered in addition that everted rim pottery replaced the incised wares; however this latter argument is no longer convincing for reasons outlined above.

It is unfortunate, if somewhat inevitable, that such a rigid pottery sequence is not convincingly borne out by the evidence. Dr MacKie's contention that everted rim wares do not occur in the early levels of Dun Mor Vault is contradicted in the site report. An everted rimsherd was recovered from the Epsilon 2, Phase 1A deposits (MacKie 1974, 38), although this is excluded from the illustrations of pottery and is subsequently ignored in the pottery discussion. A C14 date from roots in the Epsilon 2 context can be calibrated to between 770 and 180 BC (table 1) and while this sherd is a single example, it cannot be disregarded purely as a matter of convenience. Stratigraphically later was the everted rim, double cordoned vessel from Eta 2 (no 90), a context for which a C14 date of 785 to 215 BC was recovered (table 1). The implication from Dun Mor Vault is that everted rim pottery occurs from the late third or early second century BC. An everted rimsherd was also recovered from the level of early erosion pits at Balelone in Phase 3b which were dated by a shell C14 sample to between 405 BC and 395 AD (table 2). It thus at least has the potential for being pre-first century although it could not seriously

be advanced as evidence to support this hypothesis. A similar argument applies to the C14 date from Dun Ardtreck, which when recalibrated gives a date range of 370 BC to AD 220 (table 4) for the site's construction. Everted rims and fluted everted rims occurred throughout Phase 2. It is hard to reconcile the above evidence with MacKie's sequence derived from Clickhimin of fluted rims being the progenitors of the ordinary everted rims, especially since the fluted variety occur in their largest numbers at Dun Mor Vul in the Sigma deposits of Phases 3b and 4 when ordinary everted rims are already commonplace.

Other vessel or decorative types have been identified as having French and specifically Urnfield parallels and origins. Horizontal rilling on the exteriors of sherds was identified as one of these traits (MacKie 1971a, 844). Several sites in the Hebrides have produced examples, although none can be demonstrated to be of the early date which might be expected if the Urnfield parallel is adhered to. At Dun Mor Vul all the sherds were in the Sigma Phase 3B and 4 levels which contained Roman glass and pottery of Antonine date. A sherd with very similar decoration was recovered from Phase 3 contexts of Dun Ardtreck. This was a level thought by the excavator to date not earlier than the second century AD, also deduced on the basis of discovered Roman samian and coarse ware. An almost identical sherd from A'Cheardach Mhor was identified as being a Mediterranean import by the excavators; it is now clear that it is not (Alcock 1984, 17). It was recovered from Phase 4 of A'Cheardach Mhor and although the exact stratification is ill defined, to envisage it as an Urnfield parallel would require an explanation for the many centuries' time lag from a supposed continental origin.

Another of the supposed Urnfield decorative parallels (MacKie 1971a, 844), although similarities with late Bronze-Age vessels from Sussex have also been noted (Mackie 1974, 159), is the occurrence of sherds with thumb-impressed bases. Several of these were recovered from A'Cheardach Mhor, although unfortunately none had a particularly secure position within the site stratigraphy. Two were excavated from the wheelhouse middens and while levels within these were given phases by the excavators, it is evident from the site section (Young & Richardson 1960) that the levels were not continuous and so the dating of the sherds to Phase 1 of the site is not satisfactorily proven. Others of the type were excavated from the pre-broch contexts of Dun Mor Vul, from Dun Ardtreck in Phase 2 and from the 3c level of habitation and structures at Balelone. While little may be proven, the existence of thumb-impressed bases on these and other sites in the Hebrides indicates the potential for a fairly widespread chronological horizon and not just in the first millennium BC.

The remaining major everted rim style which has been noted is 'Clettraval' ware. The distinctive features are the everted rim, an applied wavy cordon at the point of maximum girth of the vessel and a series of channelled curving arches above. As a decorative technique it was considered by Scott to have been one of the earlier rather than later vessel styles, with its use dying out at the end of the first phase at the Clettraval site. It is not known to have any parallels outwith the Hebrides and within the islands seems to have a distribution confined to the southern part of the chain. Its occurrence on wheelhouse excavations on the Uists, such as A'Cheardach Mhor Phase 1, led to its becoming labelled as 'wheelhouse ware', although the earliest context for which a date can now be provided is at Dun Mor Vul. One sherd at that site had a finger-impressed cordon with channelled concentric and curvilinear decoration above; this is held to have affinities to 'Clettraval ware' and it was located in the Theta 1 deposits. Context Theta was a mixed early and later deposit containing material from Phases 1 and 2 which lay on top of the raised rock surface in the north-western quadrant of the broch interior. The excavator assigned the pottery and other artefacts to Phase 2A (MacKie 1974, 79), though this separate, pre-broch phase was distinguished, not by structural remains but, rather, by the existence of new pottery types which he ascribed to the arrival of the 'fort builders'. The significance which can be attached to this supposedly separate phase depends on the degree of correlation one is

prepared to see between subjectively different pottery styles and changing prehistoric populations. There is no doubt that although some of the material derives from earlier contexts some also comes from later ones. No C14 dates were obtained for Phase 2 or 2A deposits, although the context may be bracketed by those from earlier and later to give a range in the last five centuries BC to the first three centuries AD. *Clearly this is of little value in the chronological definition of the first occurrence of the decorative type, although many examples of the style were recorded from the early broch contexts in the last century BC and first two centuries AD.*

The end point in the 'Clettraval' ware sequence is equally hard to pinpoint, although Scott asserted that the characteristic decorative features were confined to only the lower levels. This in part relies on the dating for the associated hut, structure 'C' at Clettraval, and since this was dated by the pottery within it, the argument involves circularity and cannot be deemed satisfactory. The sequence of Dun Mor Vaul was thought by the excavator to lead to a 'devolved' style in the Phase 4b Beta deposits from the mural galleries. These were dated by the recovery of Roman glassware of a late first/early second-century AD type. MacKie argued that the channelling, which was the essential feature of Clettraval ware, was derived from the eyebrow ornamented Iron-Age B bowls of Wessex, rather than from the more elaborate Glastonbury bowls as Scott had advocated. The Dun Mor Vaul Wessex bowl is one of several which occur in the Hebrides, although mainly in Tiree, and was labelled by the excavator as a 'memento pot' made for immigrant South Western British peoples arriving in the first century BC and recalling the styles made in their abandoned homelands (MacKie 1971b, 46). The imitation Wessex Iron Age B bowl was recovered from levels of primary use of the broch in Phase 3a, that is stratigraphically later than some of the more typical 'Clettraval' ware sherds from the site. This apparent discrepancy was explained by the Wessex bowl having been kept as an heirloom before deposition. The arguments advanced cannot be taken to define a starting point for 'Clettraval' ware, whilst an end point in any sequence will require a duplication of the pattern from more than one site, rather than the identification of processes of 'devolvement' or 'degeneration' from one excavation.

An end for the Hebridean pottery sequence was seen by Mrs Young in the vessels recovered from Dun Cuier (Young 1956). The bulk of the pottery from the site was of plain flaring-rim variety and was dated by her through the occurrence of bone combs and other materials on the site. No other comparable published assemblage occurs in the Hebrides, apart from the pottery from the small excavation within one of the chambers of Dun Carloway. There were no datable artefacts from the latter site and the latter C14 date is clearly not contemporary with the period of broch construction and main use. It is particularly regretted that it was not possible to examine the Udal pottery because a phase of plain vessels was identified as beginning sometime after AD 400 (Ritchie & Lane 1980, 220). Dun Cuier clearly was in use in the early historic period, but the recording methods used reduce its value in providing the end of the pottery sequence. The sequence may be not a general one: no comparable pottery was found in the late levels of Dun Mor Vaul, which also extended into the early historic period.

CONCLUSION

It is a worrying aspect of Hebridean archaeology that the sequences and typologies which have been examined above are based on excavations of varying dates and levels of recording and that the database from which attempts are made to derive patterns is probably less than 20000 sherds; less than one fifth of that recovered from a single hillfort, that of Danebury in Hampshire (Cunliffe 1984, 321). The Hebrides in the later prehistoric period appear to lack identifiable pottery kilns and specialist pottery production centres. In this conclusion may lie the reason for the difficulty in defining Hebridean pottery typologies and chronologies, because without the uniformity of commer-

cial or specialist production the relevance of classification may be limited (Harding 1974, 92), with patterns within the data being too ephemeral or too variable for secure archaeological identification. The purpose of this paper has been to demonstrate the need for more rigorous treatment of primary archaeological data utilizing modern techniques, rather than to question the simplistic nature of previous Hebridean pottery sequences. Errors of interpretation frequently follow errors of identification; the author acknowledges there will be cases where he too has been guilty of both.

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EDITOR'S NOTE

- 1 The term 'Western Isles' in this author's usage encompasses both the Outer and the Inner Hebrides.

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