

Two Early Historic bog butter containers

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ABSTRACT

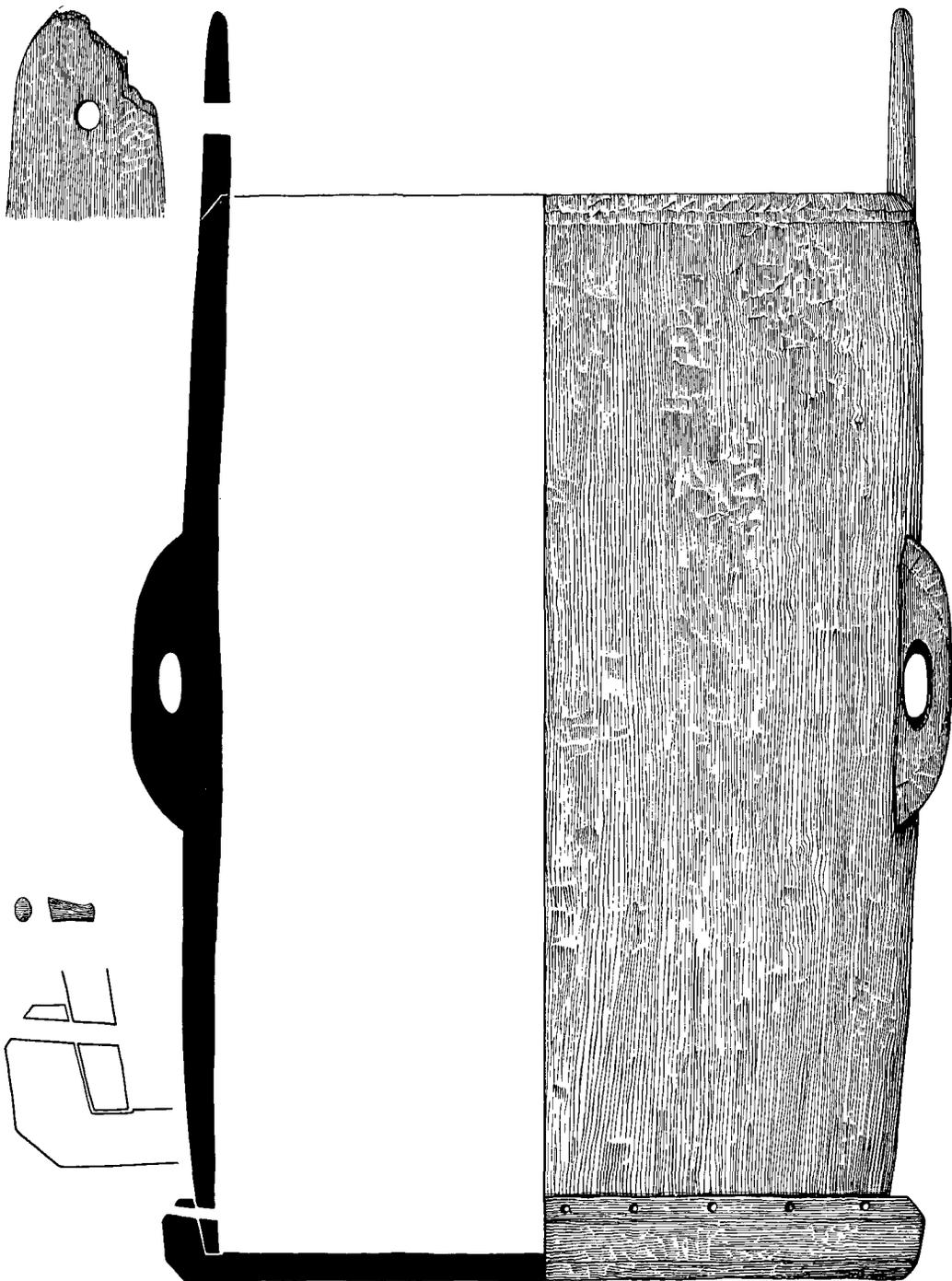
The first radiocarbon dates for bog butter were recently obtained from the contents of two wooden kegs found at Morvern, Argyllshire, and Kyleakin, Skye. The dates cover a period from the mid-second to mid-fourth centuries AD confirming earlier suggestions that the burial of bog butter was not exclusively a late medieval practice. The woodworking techniques used in the manufacture of bog butter kegs from Scotland are varied and include methods used before the introduction of cooperage. The evidence of the physical nature of bog butter is reviewed as are the reasons for its burial.

INTRODUCTION

Since the mid-19th century finds of bog butter have been recorded from Scottish and Irish peat cuttings. Bog butter has been found in a wide variety of containers but one of the most common types is carved wooden kegs. These vessels were made in three pieces, the body being carved from an unsplit tree trunk or branch while the base and lid were made from split timber. Records of at least five separate discoveries of such wooden kegs from Scotland have been traced (*PSAS* 1860; Macadam 1882; Anderson 1885; Ritchie 1941). The find from Kyleakin, Skye (Anderson 1885), was of an unspecified number of wooden vessels. Only two kegs, from Kyleakin and Morvern, Argyllshire, now survive. A detailed description of a third keg, from Kilmaluag, Skye, has been published (Ritchie 1941), but few details of the other two kegs were recorded.

Dating of bog butter kegs in the past has been difficult as all such vessels were found during peat cutting and little or no analysis of their stratigraphic position was made. The probable association of a number of wooden kegs found at Kyleakin with a bronze cauldron of the early first millennium AD suggested a possible date (Anderson 1885, 310–11), and recent radiocarbon dating of the bog butter from the two surviving kegs has confirmed this hypothesis. The dating, which was carried out by the Radiocarbon Dating Research Unit at The Queen’s University of Belfast, is the first attempt to radiocarbon date bog butter. Although some difficulties were experienced with combustion the samples were otherwise treated normally. The possibility of radiocarbon dating bog butter rather than a sample from the wood of the containers was considered to be advantageous as the vessels were not disfigured in any way.

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ILLUS 1 Carved keg: Morvern, Argyllshire. Scale 1:4. The enlarged detail of the base (scale 1:2) shows the method of fit between body and base, and one of the wooden pegs. (Drawn by Marion O'Neil).

THE WOODEN KEGS FROM KYLEAKIN AND MORVERN: CONSTRUCTION AND DATING

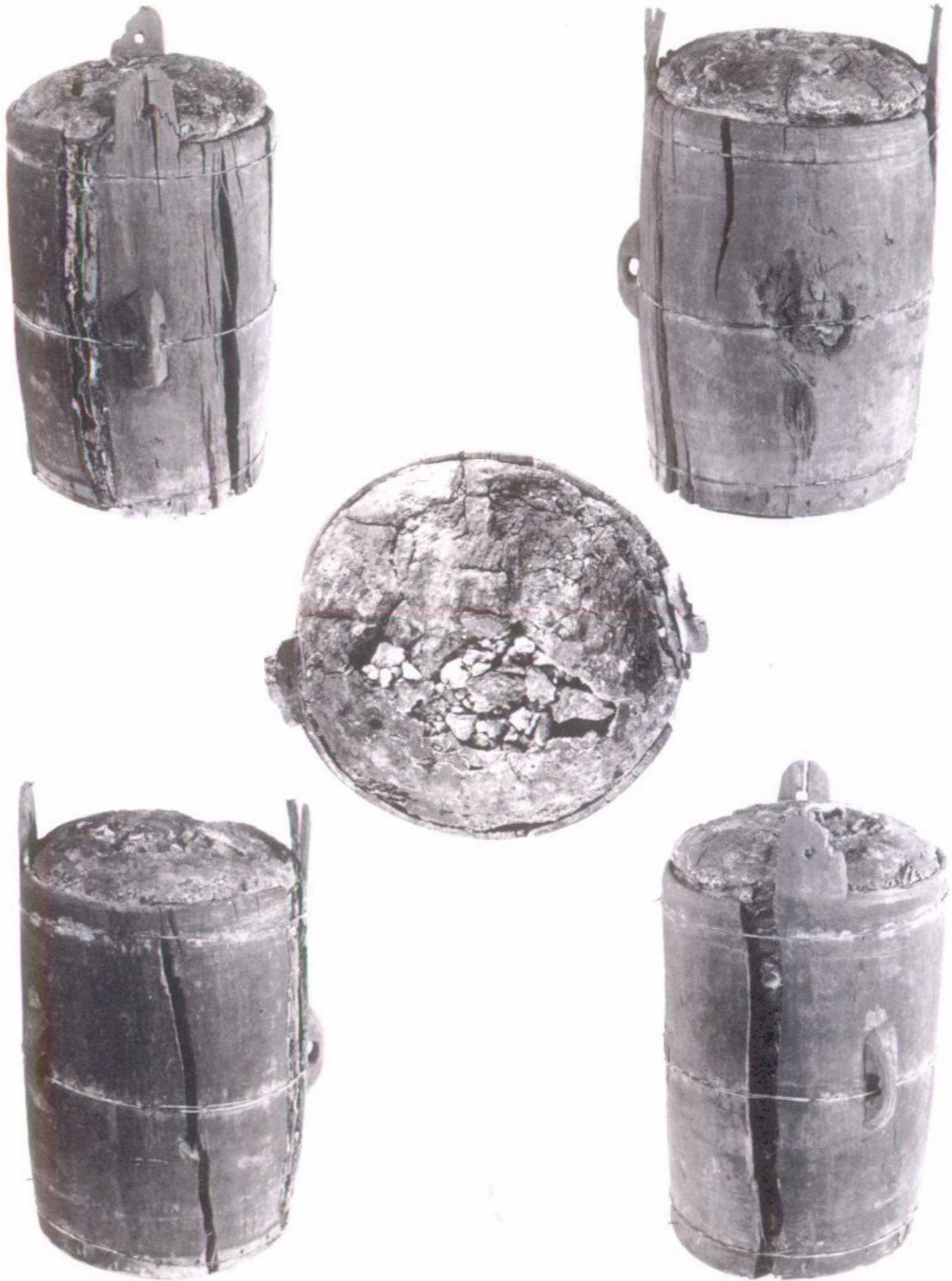
The older of the two wooden containers was found in 1879 during peat cutting at the north end of Glen Gell, Morvern, Argyllshire (Macadam 1882; Royal Museum of Scotland ref ME166/SHC1). A radiocarbon date of 1802 ± 35 bp (UB-3185) was recently obtained from the contents of the keg. Calibrated to one standard deviation this gives a date range of AD 140–247 (Stuiver & Pearson 1986).

The body of the vessel was carved from an unsplit trunk or large branch of birch to produce a cylindrical body with slightly barrel-shaped sides (illus 1–2). On opposing sides of the vessel a perforated handle projects above the rim. In addition to the two rim handles there is a handle on either side of the body approximately half-way up the vessel. The side handles were carved from the solid during shaping of the body and are perforated by sub-rectangular holes. The base, which was made from a piece of split timber, is round. After splitting, the base was further shaped, probably using a chisel, to leave an upstanding lip running around the outer edge. The bottom of the body sits on the base inside the lip and the two pieces are fastened together with wooden dowels, the joint being packed with bark. The full height of the body is 725 mm and the maximum diameter 420 mm. The bog butter completely fills the vessel and the top surface is domed. The wooden lid (Macadam 1882, fig 2; reproduced here as illus 3) cannot at present be located in the Royal Museum of Scotland collections. It appears to have been slightly domed and toolmarks, probably from an adze, are visible on the surface in the illustration. The lid clearly had a rectangular slit on one side which would have slipped over one of the vertical rim handles, but it is uncertain from the illustration whether the opposite side had a similar slit or just a recess. The original description also suggests the lid was grooved on its undersurface so as to fit securely over the rim.

The other surviving Scottish bog butter keg, which is made of alder, was found in the early 1880s in a bog near Kyleakin, Skye. It was discovered with a number of other wooden bog butter kegs (not preserved) (Anderson 1885; Royal Museum of Scotland ref SCH2/ME167). A radiocarbon date of 1730 ± 35 bp (UB-3186) was recently obtained from the contents; calibrated to one standard deviation this gives a date range of AD 246–346 (Stuiver & Pearson 1986).

The keg, which is made of alder, is considerably smaller than that from Morvern, being 356 mm in height with a maximum diameter of 330 mm (illus 4–5). The body is more distinctly barrel-shaped and has an everted rim. There is a small carved lug handle on each side of the body but no rim handles. The horizontal perforation of the lugs was achieved by piercing with a heated metal rod, the burn-marks of which are still clearly visible. Most significantly the construction of the Kyleakin keg differs in that the base (now missing) rested on a ledge cut around the inner circumference of the lower edge of the body. A fragment of a wooden hoop also survives. This is no longer *in situ* but marks on the body indicate that it was pinned into place near the bottom edge. It was shown in this position when photographed in 1931/2 (Ritchie 1941, plate 4.1). The keg probably had a lid originally.

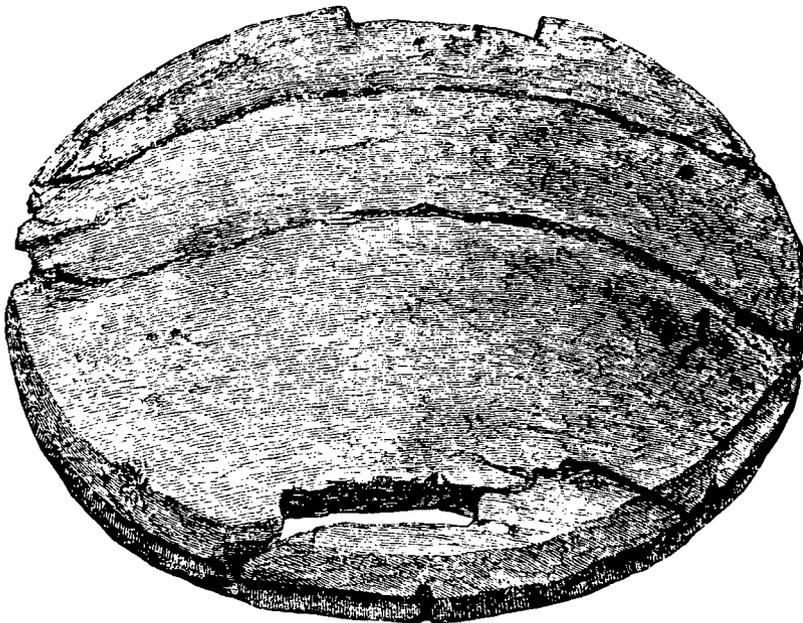
The techniques used in the making of the Morvern keg are closely similar to those used in prehistoric wooden vessels of the first millennium BC. In particular, the use of wooden dowels and caulking are paralleled in two similar wooden tubs from Lough Eskragh, Co. Tyrone. The more complete vessel was recovered from ninth/tenth century BC context (Collins & Sealy 1960; Williams 1978). Study of the development of manufacturing techniques used in wooden vessels of the prehistoric and early historic period demonstrates that construction methods of



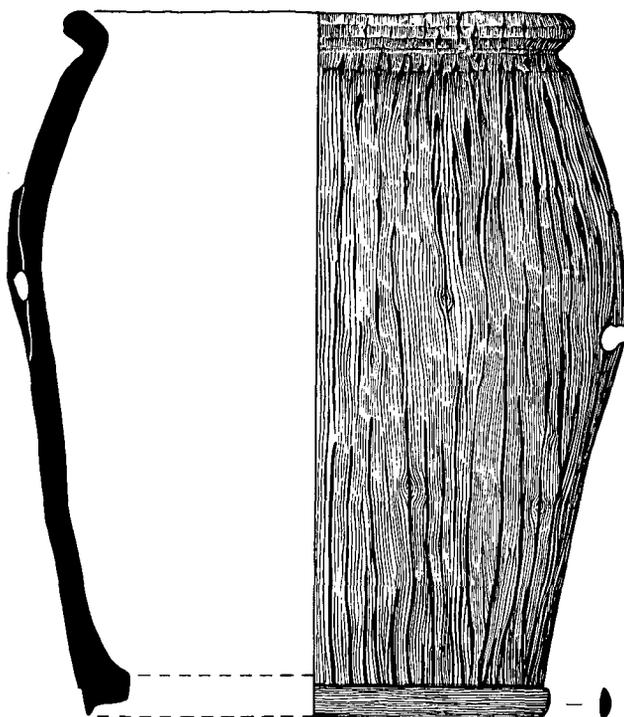
ILLUS 2 Carved keg containing bog butter: Morvern, Argyllshire. Condition in early 1992, prior to conservation. (Photographs copyright of the Trustees of the National Museums of Scotland.)

this type were largely superseded during the late first millennium BC when bases were more commonly secured within a groove in the body of the container. The latter technique is essentially the same as that used in stave-built vessels, although the base was inserted into the completed body rather than, as with stave-built vessels, during the setting-up process (Earwood 1990a, 185, 204). Although the Kyleakin keg is comparable in date to the vessel from Morvern, the different method of securing the base indicates that during this period in Scotland a transition in woodworking techniques was probably taking place. The earliest recorded stave-built containers, from Wilsford, Wiltshire, have been dated to the 13th century bc (Ashbee, Bell & Proudfoot 1989, 68–71). Cylindrical carved vessels of similar date are recorded from Fivavé, Italy (Perini 1987, fig 124), as well as from Wilsford but the bases of these were sewn to the body rather than being pegged. The method of securing the base of the Kyleakin keg, although more primitive, appears to have developed at a later date than the use of grooves and is common in medieval and post-medieval two-piece carved vessels from Ireland.

A single example of a bog butter keg with a sewn base was recorded from Kilmaluag, Skye (Ritchie 1941), having been found in 1931 during peat cutting. In spite of exhaustive enquiries it has been impossible to locate this vessel which must be presumed to have been destroyed or lost. In most respects it is closely similar to the keg from Morvern although it was smaller, being 535 mm in height with a maximum diameter of 355 mm. The sides of the body were slightly barrel-shaped with two handles projecting from the rim and a further two handles cut from the thickness of the body and set slightly less than half-way down but not quite opposite each other. The base was circular with a flange pierced with holes. The lower edge of the body had corresponding holes and the two pieces were sewn together with hide. A circular lid, which was notched on either side, was secured between the two upright handles.



ILLUS 3 The lid of the Morvern keg. Reproduced from Macadam (1882, fig 2), with the permission of the Society of Antiquaries of Scotland. Not to scale.



ILLUS 4 Carved keg: Kyleakin, Skye. Scale 1:4. (Drawn by Marion O'Neil.)

of the peat in which the vessel lay indicated that it had been lowered into a bog pool. On the basis of pollen analysis it was suggested that the keg should be dated to the late prehistoric or early historic period (Ritchie 1941, 19). The strong similarity between the Kilmaluag and Morvern kegs supports this broad dating. The use of sewing may suggest a late prehistoric rather than early historic date for the Kilmaluag keg.

The radiocarbon dates obtained from the contents of the Kyleakin and Morvern kegs indicate the date when they were buried and not the date of manufacture. However, it is unlikely that there is a large discrepancy. Although wooden vessels used in everyday life were sometimes repaired their useful life is not likely to have been great, certainly it is doubtful that it would span more than a generation except under exceptional circumstances.

POSSIBLE USES OF BOG BUTTER

The earliest secure date for bog butter is the second/third century AD date of the Morvern keg. As indicated earlier, bog butter burial may be dated back to the late prehistoric period if such a date can be accepted for the Kilmaluag keg. Other instances of bog butter burial range from a sixth/seventh-century wooden hanging bowl from Cuillard, Co. Roscommon (Raftery 1966), to an 18th-century wooden churn from Ternakill bog, Ross, Co. Galway (Raftery 1942, 37). In Scotland, by contrast, other than the two surviving kegs, bog butter burials are poorly dated. A wooden trough from Durness, Sutherland (Close-Brooks 1984), which has recently been radiocarbon dated to the 11th/12th century AD, is closely similar in size and style to vessels from the sixth/eighth-century crannog in Loch Glashan, Argyllshire (RCAHMS 1988,



ILLUS 5 Carved keg containing bog butter: Kyleakin, Skye. Condition in early 1992, prior to conservation. (Photographs copyright of the Trustees of the National Museums of Scotland.)

208; Earwood 1990b), as well as to a similar trough from the seventh-century rath at Deer Park Farms, Co. Antrim (Earwood forthcoming). On the present evidence, it appears that in Scotland the practice of burying bog butter cannot be dated later than the early second millennium AD whereas in Ireland it continued into the post-medieval period.

Chemical analysis of bog butter has been carried out on a number of occasions to establish its exact nature (Macadam 1882; Arup 1932; Thornton, Morgan & Celoria 1970; Lannin, National Museum of Ireland, pers comm). Although there is a strong probability that the substance was originally butter, it can be stated conclusively only that its present form may have been derived from milk or some other form of animal fat. The percentages of various fatty acids are not especially close to those found in present-day butter but chemical changes could have occurred as a result of long submersion in the bog. Examination of bog butter has shown that it was not always a solid dense mass when placed in the container. It has been observed, for example, that when bog butter is found, it is spongy and porous and has the appearance of having had several lumps placed in the container (Ritchie 1941). This description accords well with the way in which butter was packed into wooden tubs on 19th-century hafods (summer pasture dwellings) in Wales. The butter was taken in the hand, flung into the tub to get a close pack and pressed down in layers (Hartley 1945, 481). The top layer of the butter was slightly raised in the centre presumably to make sure any moisture ran off. This compares with the shape of the bog butter in the Morvern keg. Bog butter commonly contains hairs, many of which have been identified as reddish/brown cattle hairs. Analysis also shows that bog butter does not contain salt.

The lack of salt may be indicative of the reason for the burial of bog butter. The anaerobic nature of the peat bogs together with their relatively constant temperature may have made them suitable for cold storage. Their efficiency over long periods (ie of months rather than weeks) is questionable as experiments in burying butter churned from a pure-bred Dexter cow demonstrate that the butter will become rancid in a matter of months even during the winter (Earwood 1990a, 274). It is possible, however, that butter was stored not as food but to be used in some other process such as for greasing washed wool prior to spinning. Other explanations that have been put forward include the improvement of the nutritional value (O'Laverty 1892), improvement of flavour (Wilde 1858) and the deposition as a ritual offering (Evans 1947). The identification of bog butter as tallow (Thornton, Morgan & Celoria 1970, 24) is unlikely in view of the manner in which bog butter appears to have been packed into the kegs.

Wooden containers in which bog butter was buried are of many types and there is no indication that they were made specifically for this purpose. The similarity between bog butter containers and wooden vessels from excavated settlements suggests that they were intended for a variety of domestic uses. The range of wooden vessels includes dishes, troughs, bowls, tubs, kegs and stave-built vessels. Additionally, bog butter was sometimes buried in cloths or wicker baskets (Earwood 1990a, 275).

DISTRIBUTION OF BOG BUTTER BURIALS

The burial of bog butter, in the British Isles, appears to have been confined to Ireland and Scotland. In Scotland reported finds are almost exclusively from the west coast and Western Isles: three from Skye, three from the west coast; with one from Shetland and one from Durness in Sutherland. This distribution, as well as the similarity between bog butter containers from Scotland and Ireland, reflects a shared cultural tradition if not actual

movement of peoples. The Scottish distribution of bog butter finds is coastal reflecting the occurrence of settlements close to sea-level both during the early historic period and at the present time. The bog butter containers may have been buried in these areas because they were close to contemporary settlement or they may have been found in these locations because peat cutting in the 19th century and more recently has taken place within a short distance of present-day settlement.

CONCLUSION

The radiocarbon dating of the Kyleakin and Morvern kegs has demonstrated conclusively that the burial of bog butter is of considerably greater antiquity than previously thought. The dates obtained from the bog butter accord with the woodworking techniques used in the construction of the kegs although demonstrating that the older, prehistoric techniques continued in use in western Scotland some considerable time after the introduction of cooperage. It may be significant that such wooden vessels have been found only in areas not under direct Roman rule and whose inhabitants are likely to have been in contact with Irish culture during the early historic period. The radiocarbon dates were calibrated using the University of Washington Radiocarbon Calibration Program (Stuiver & Pearson 1986).

ACKNOWLEDGEMENTS

The radiocarbon dating was funded by the National Museums of Scotland, which also supplied the photographs, and I am grateful to Dr A Sheridan and Mr A Saville for their assistance. The line drawings were prepared in the Artefact Research Unit, Royal Museum of Scotland, by Marion O'Neil.

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