

The wooden artefacts from Loch Glashan crannog, Mid Argyll

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ABSTRACT

Excavations at Loch Glashan crannog in 1960 led to the discovery of a large number of wooden artefacts. These include a diverse range of containers, pegs, pins, spatulae, handles, and tools as well as parts of structures and other worked wood. The material, which has remained largely unpublished, provides an insight into domestic life in Scotland in the sixth/eighth centuries AD as well as further information on both contemporary woodworking techniques and the movement of goods and/or ideas.

INTRODUCTION

Loch Glashan crannog was excavated in 1960 prior to flooding as part of a hydro-electric scheme. The crannog lay on a muddy shelf on the edge of the deep water, approximately 40 m from the old shoreline. The substructure was recorded as consisting mainly of brushwood mixed with fern and bracken. In one area this was covered with a layer of logs and in the south-west part of the crannog a sub-floor formed of timbers stripped of their bark and roughly trimmed was identified as a rectangular building. A layer of sand and gravel with some paving lay over the timber (RCAMS 1988, 205–8).

The majority of the finds, in particular the wooden artefacts, came from the brushwood layer. The heavily waterlogged and uneroded nature of this layer may account for this distribution of organic material, which also included much leather. However, it should be noted that the crannog was not excavated below the water table. It is possible that the brushwood layer was not merely a foundation but was the result of periodically raising the height of the crannog surface and contained within it one or more occupation surfaces. It is difficult otherwise to explain the large quantities of occupation material in the 'foundations'. This problem of multi-phase occupation of crannogs has been recognized elsewhere (Guido 1974; Lynn 1986).

Pottery from the foundation layers and surface of the crannog places the occupation between the sixth and eighth centuries AD (RCAMS 1988).

The wooden artefacts from the site include large numbers of pegs and pins, some of which may have been used in building structures; spatulae; handles; containers; miscellaneous tools, a paddle; and, a number of unidentifiable fragments of worked wood.

Not all of those items recorded in the original finds list can now be located. It is assumed that some were lost prior to conservation. Others are now too fragmentary to attempt any reconstruction. A full list of all wooden artefacts originally recorded is included in the appendix (fiche 1:E1). The reference numbers used here are the original site find numbers.

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Owing to the present condition of the wooden artefacts the recording of the woodworking techniques used in their manufacture has been less full than would ideally be wished. In particular no wood species analysis was carried out prior to conservation. In their present condition sampling would require removing not inconsiderable pieces of material from each artefact for treatment and analysis. This would be particularly disfiguring in the cases of the smaller artefacts. The conservation processes have in many cases obscured toolmarks created during the manufacture of the artefacts. Additionally, although it has been generally possible to distinguish between roundwood and splitwood, it has rarely been possible to note the precise ring/ray patterns of splitwood pieces. In all cases the direction of the wood grain has been noted.

THE ARTEFACTS

WOODEN CONTAINERS

A variety of types of wooden containers was found during the excavation of Loch Glashan crannog. In all cases these were found among the brushwood layer which has been identified as the foundations of the artificial island (Scott 1961; RCAMS 1988). Of the seven vessels found, five are best described as dishes or troughs but within this type there is great variety of both style and size. A fragmentary carved tub or bucket, now in nine pieces, had been extensively damaged during the occupation or perhaps the building of the site. The pieces were found surrounding two vertical roundwood piles. It has been suggested that the container was used to line a posthole (RCAMS 1988, 208). The remaining wooden vessel was a turned bowl or jar of which only a fragment of the rim and shoulder survived. The most striking aspect of this wooden container is the way in which its shape closely parallels that of E-ware pottery from the site.

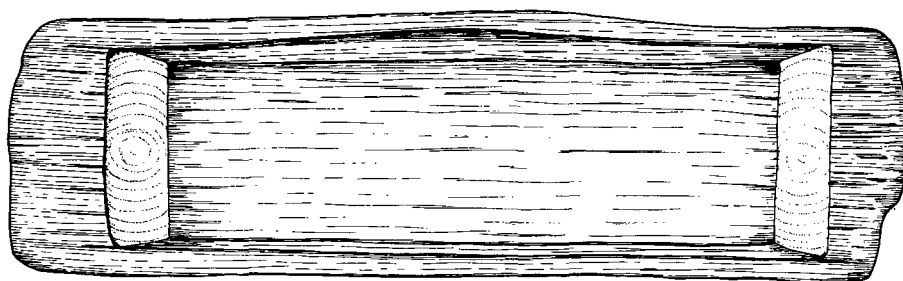
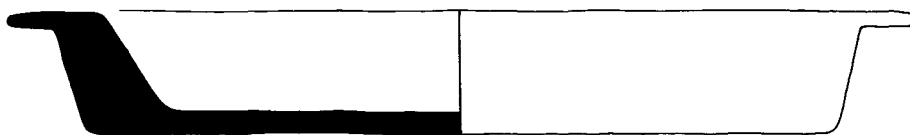
Carved containers (dishes, troughs and tubs)

The naming of wooden containers is a reflection of modern thinking and the terms used here do not necessarily reflect function. No recognized categorization of wooden vessels has been established. The essential difference between a dish and trough in this context is one of shape but also to a lesser extent of size. A trough is considered to be a long narrow vessel whereas a dish is smaller and shallower.

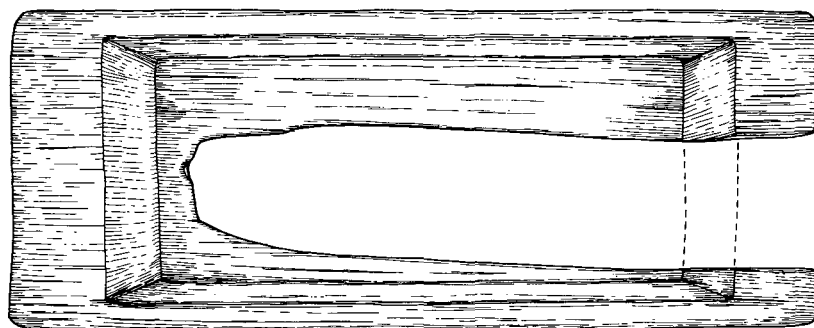
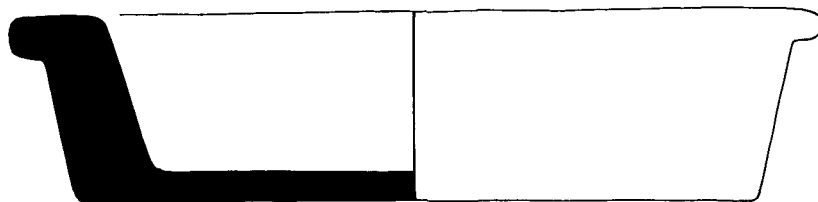
The largest wooden vessel from Loch Glashan is a rectangular trough, 55, measuring 955 mm in length. At either end the rim has been elongated horizontally to form a handle running the complete width of the vessel. The sides are now distorted but appear to have risen nearly vertically from the base. The interior as well as the exterior of the trough has been carved into a regular rectangular shape. On the outside the sides join the base in a series of slight steps rather than at right angles. The trough was manufactured from a length of unsplit timber. The complete tree rings of the heartwood are clearly visible in the face of either end of the trough. The diameter of the tree trunk used cannot be established as no sapwood or bark remains. However, it cannot have been much less than 300 mm (illus 1).

This trough is strikingly similar to an undated example from Durness, Sutherland (Royal Museum SHC9; Close-Brooks 1984, illus 2). The shape of the Durness trough differs slightly in having bowed sides but the same method of manufacture has been used. Another very similar vessel was found *in situ* in one of the Early Christian houses at Deer Park Farms, Co Antrim (Earwood forthcoming).

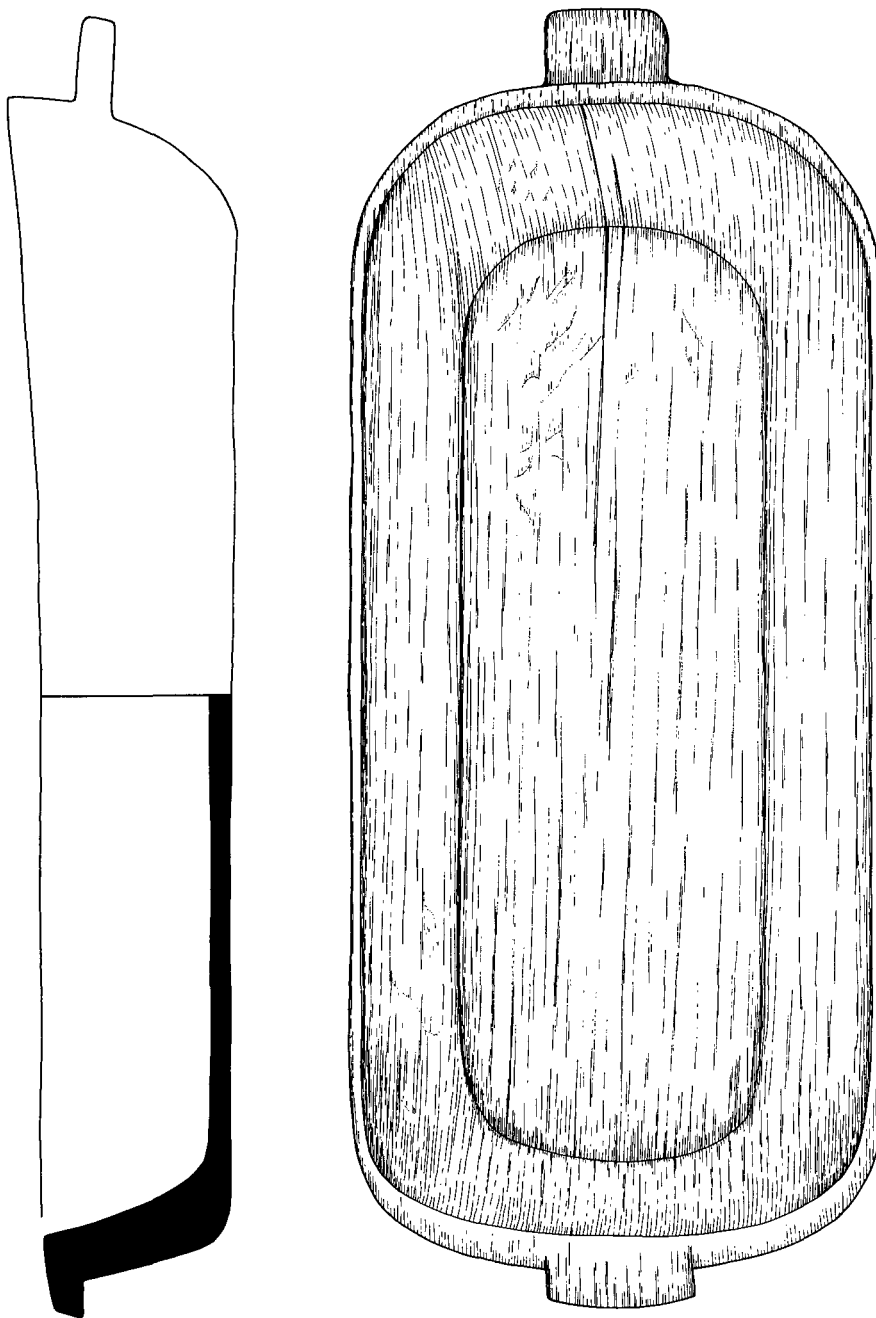
A second trough, 120, mirrors the shape of 55 but is much smaller, being only 430 mm in length; its handles are also less pronounced (illus 2). This vessel was found lying across a larger dish, 121. This dish is sub-rectangular with rounded corners both inside and out and is shallower in relation to its



ILLUS 1 Rectangular trough, 55 (scale 1:8)



ILLUS 2 Rectangular trough, 120 (scale 1:4)

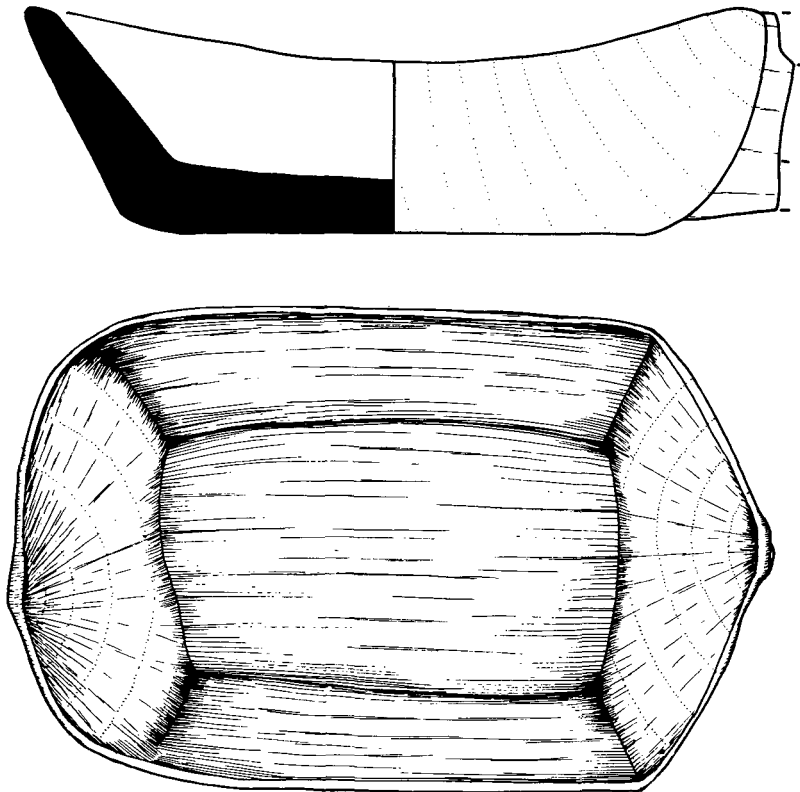


ILLUS 3 Rectangular trough, 121 (scale 1:4)

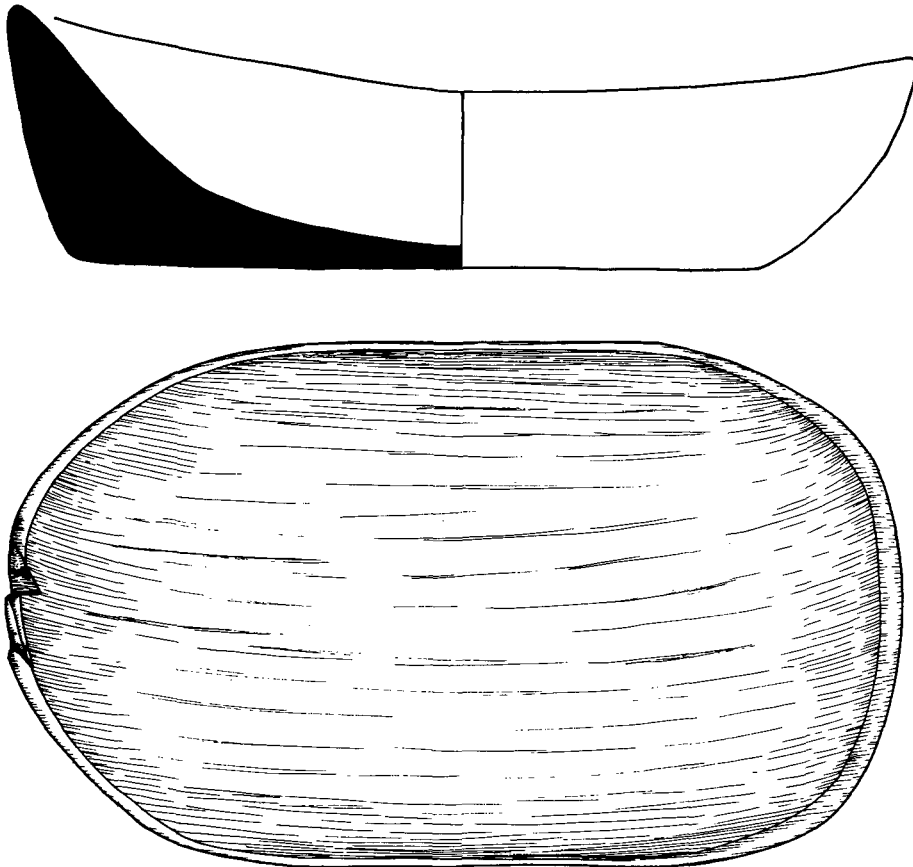
length (712 mm) and width (290 mm) than *I20* or *55*. At either end there are flat, horizontal handles, one forming a continuation of the rim, the second protruding from the end wall c 40 mm down from the top edge of the vessel (illus 3).

The two remaining dishes have been described elsewhere as bowls or scoops (RCAMS 1988). The exterior rim shape of both (82 and 83) is similar: the interiors differ. The interior of 83 is not angular, the sides merging into the base in a gentle curve, whereas the interior of 82 has been carved into a sub-rectangular shape. Both appear to have had a single handle at one end. The surviving part of the handle of 82 runs from the rim, down one end to near the base. The damaged areas near the top and bottom of this handle suggest that it may have originally formed a loop. No part of the handle of 83 survives but two damage marks, similarly positioned to those on 82 may have been the position of a handle. Both dishes are of similar size, being 310 mm (82) and 360 mm (83) in length (illus 4 & 5).

The present condition of these vessels has not permitted detailed analysis of their method of manufacture. However, in all cases it is possible to see the structure of the wood sufficiently to establish that they were all carved from lengths of timber so that the grain of the wood runs from end to end of the vessels. In the case of *55* the pattern of tree rings is sufficiently clear to establish that it was carved from an unsplit timber. However, the smaller dish, 82, was carved from a length of tree trunk which had been split approximately in half, the central growth rings appearing in the very top of the dish ends. The three remaining dishes/troughs appear to have been carved from split timber but the exact pattern of tree-rings is obscured.



ILLUS 4 Rectangular trough, 82 (scale 1:3)



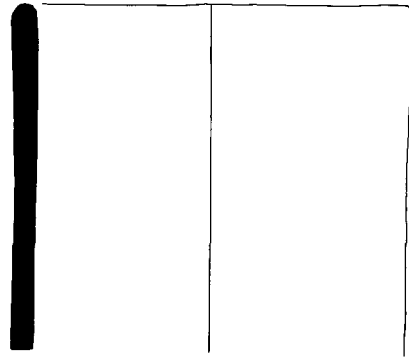
ILLUS 5 Rectangular trough, 83 (scale 1:3)

Few toolmarks have survived with sufficient clarity to permit analysis of shape or size. On the inside of *121* a number of fairly narrow (c 20 mm wide), straight cuts were observed. These are all very shallow. On the base these are nearly all aligned in the same direction and suggest the use of a chisel.

In addition to the Durness trough there are other parallels to the Loch Glashan dishes/troughs. The smaller rectangular trough (*120*) in particular resembles a slightly larger example from Lochlee crannog, Ayrshire (Munro 1882, fig 44). The building and various phases of occupation of that site are not securely dated: at least one phase appears to fall within the Romano-British period. The Lochlee trough was found outside the areas of occupation near the walkway and therefore it is not possible to know to which period of occupation it belongs but it may be contemporary with the Loch Glashan vessels. Not dissimilar troughs dating back to the late prehistoric period are also known, one example coming from the Glastonbury Lake Village, Somerset (Bulleid & Gray 1911, fig 125). No close parallels are known for the other three dishes from Loch Glashan.

The function of these troughs/dishes is unclear. Possibilities might include preparing and serving food; water containers for washing; and mixing vessels perhaps used in some craft process.

A single example of a carved tub or bucket survives (*15*). This is now in a highly fragmentary state consisting of nine pieces of which eight include a portion of the rim. Reconstruction of this vessel



ILLUS 6 Tub or bucket, 15 (scale 1:3)

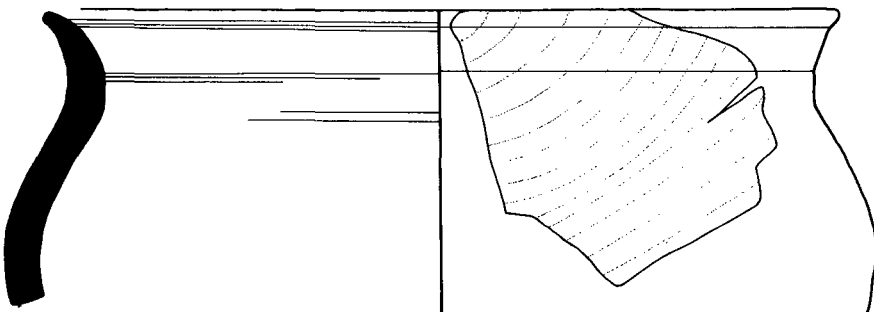
is also difficult as the wood is distorted and damaged. It appears to have been a straight-sided tub or bucket carved from a single piece of wood. As the lower portion of the vessel did not survive it is not possible to say whether it had an integral or separate base. The surviving fragments show the rim to have been cut more or less at right angles to the sides but there appear to have been irregularities: on one piece the rim is bevelled. An estimate of the original diameter is approximately 160 mm. On one fragment only can any toolmarks be seen. These shallow facets are indistinct but result from cutting downwards with a narrow-bladed tool (maximum width c 10 mm).

The site finds list identifies this vessel as stave-built. However, none of the vertical (or near vertical) edges of the surviving fragments have finished sides; all are broken edges and the pieces are of varying shapes and sizes. Their present condition does not allow any of them to be pieced together, but it is clear that they come from a tub the body of which was carved from one piece of wood (illus 6).

Turned vessels

Only one fragment of a turned vessel has been identified (149). This is part of the out-turned rim and shoulder of a vessel which may have been a bowl or jar (illus 7). On the interior surface horizontal cutting marks created during turning can clearly be seen. The tree-rings are also visible showing that the grain of the wood runs across the rim of the vessel. This is the normal orientation for turned vessels both in modern practice and as has been demonstrated for contemporary sites in Scotland (Barber 1981, 328, fig 28).

The form of the vessel is very similar to that of E-ware pottery from the site. Although reconstruction of the exact diameter of the wooden vessel is difficult it was approximately 160 mm

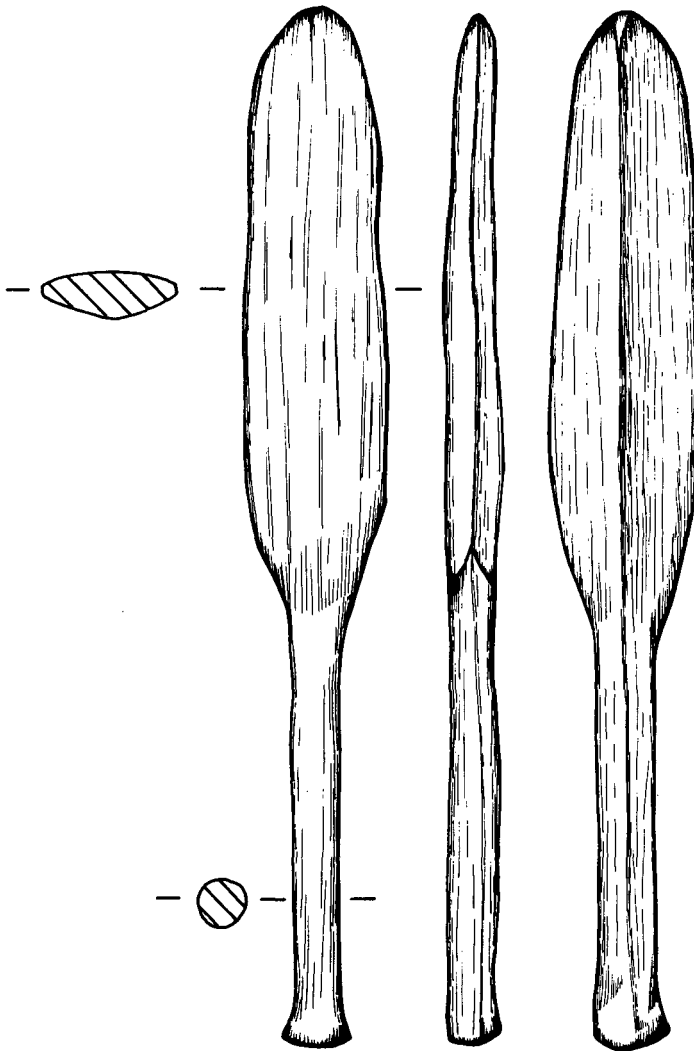


ILLUS 7 Turned vessel, 149 (scale 2:3)

which is also very close to that of many of the comparable pottery vessels. Such a close resemblance between the E-ware from the site and the wooden vessel is unlikely to have been a matter of chance but a conscious desire on the part of the wood-turner to emulate the form of a higher value vessel of another medium.

SPATULAE

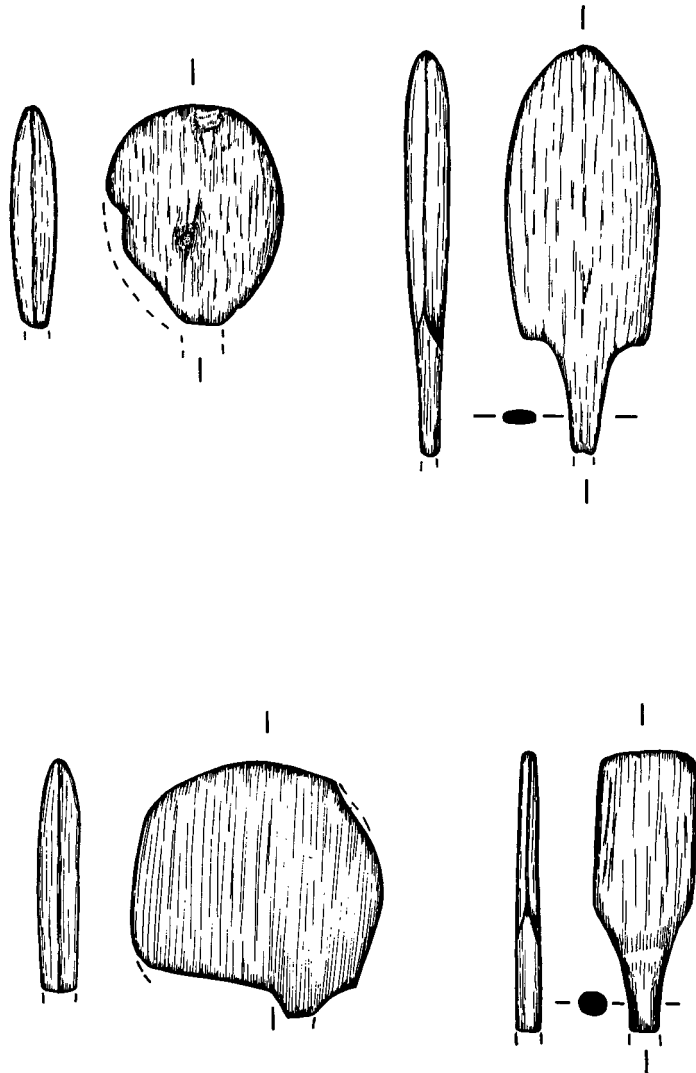
Only one complete example (57) of a probable spatula is recorded. This is 200 mm in length. The blade is finely carved, the front surface being nearly flat and the reverse rising to a central spine. The handle is round in cross-section broadening to a slight knob at the lower end. The function of this fine piece is not entirely obvious: the excavation notes describe it as a 'weaver's beater (?)' but it is too short to serve usefully in this way. In style and size this spatula resembles an example from Ballinderry crannog 2, Co Westmeath, Ireland (NMI E6: 1203; Hencken 1942, fig 26, W500). The Ballinderry spatula differs in that it lacks the spinal ridge of 57. The terminal knob is also more pronounced (illus 8).



ILLUS 8 Spatula, 57 (scale 2:3)

Although 57 is the only complete spatula, a number of broken blades were identified. None of these is of the same form as 57, all having wider and shorter blades. In all cases, all or most of the handle is missing. The shape of the spatula blades varies from that of 56, which is leaf-shaped, to the almost circular blade of 44. The blades vary in length from 30 mm to 60 mm. A similarly shaped spatula of hazel, with a nearly circular head, is recorded from Lagore crannog, Co Meath, Ireland (Hencken 1950, fig 87, W47). In section it is slightly curved; this could, however, be the result of waterlogging. The leaf-shaped blade of 56 has some similarity to a number of spatulae from the Early Christian site on Iona (Barber 1981, 343, fig 40). All the spatulae are finely carved and smoothed so that no toolmarks now remain. Although it is now not possible to determine the ray/ring patterns of the wood in all cases, the grain runs lengthways, as one would expect for maximum strength (illus 9).

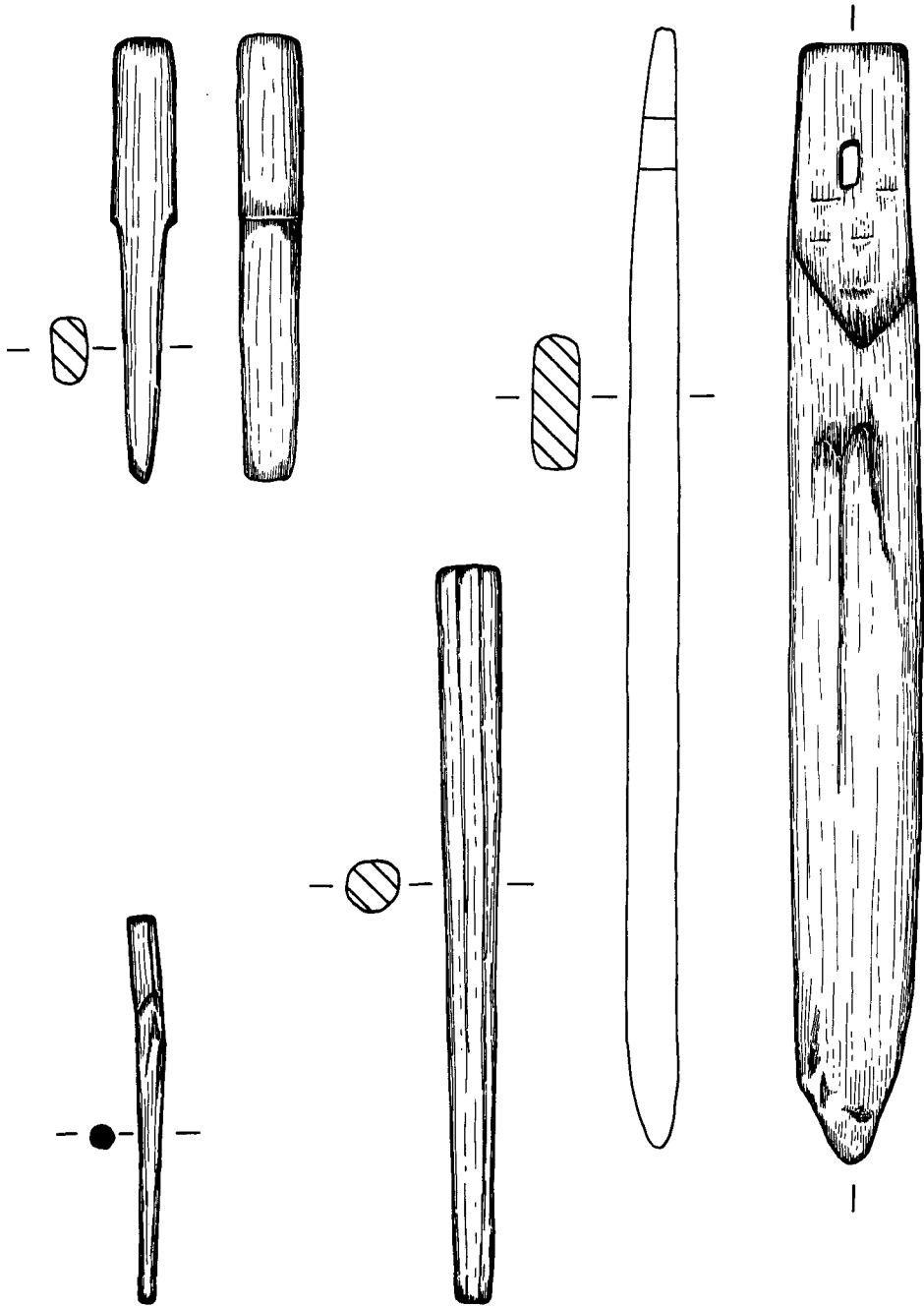
No definite function can be determined for these spatulae but their size and shape suggest that they may have been used for stirring or spreading food or other substances.



ILLUS 9 Spatula fragments, 44, 56, 181, 94 (clockwise from top left) (scale 2:3)

PEGS AND PINS

Several dozen pegs and pins were originally recorded from the excavation. Of those that now remain intact a number of distinct types can be identified. The large majority of the pegs recorded were probably used in the structure of the crannog and/or the wooden building. From their size and

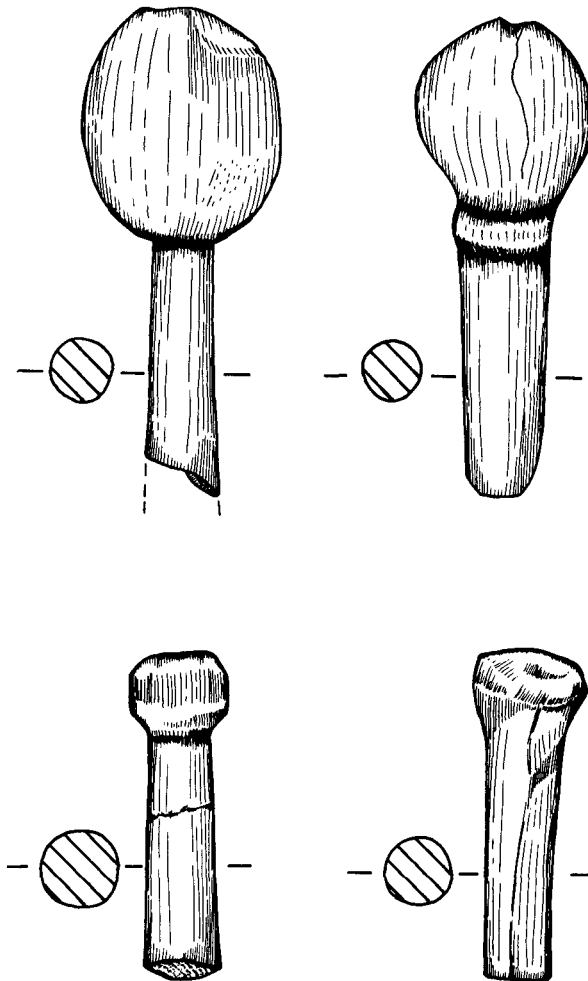


ILLUS 10 Pegs and pins, 102, 27, 114, 152 (clockwise from top left) (scale 2:3)

shape it seems likely that they were driven into mortice holes probably to secure a joint. In most cases the pegs had heads to prevent them falling through the mortice hole. These heads vary from being sub-rectangular to approximately spherical. Both round and rectangular shafts are recorded, all with blunt or broken ends. It is also possible that pegs such as these could have been used as part of a structure such as a loom. In this case they would be suitable as heddle rests.

An exception to this small type is peg 27 which is 230 mm long with a pointed end with a single wedge-shaped face cut across its top end. Through this top face has been cut a rectangular hole. The peg was manufactured from a split piece of timber. The size of this peg and its pointed end make it likely that it was driven into the sub-structure of the crannog, the hole being used to secure some structure in position (illus 10).

Two pegs (112 and 187) differ from those described above, in that they have carefully finished large spherical heads set on shafts of round cross-section. These too may have been used to secure mortice joints, but their finely crafted decorative nature suggests they were intended to be on view and they may have formed part of some free-standing structure or piece of furniture (illus 11).

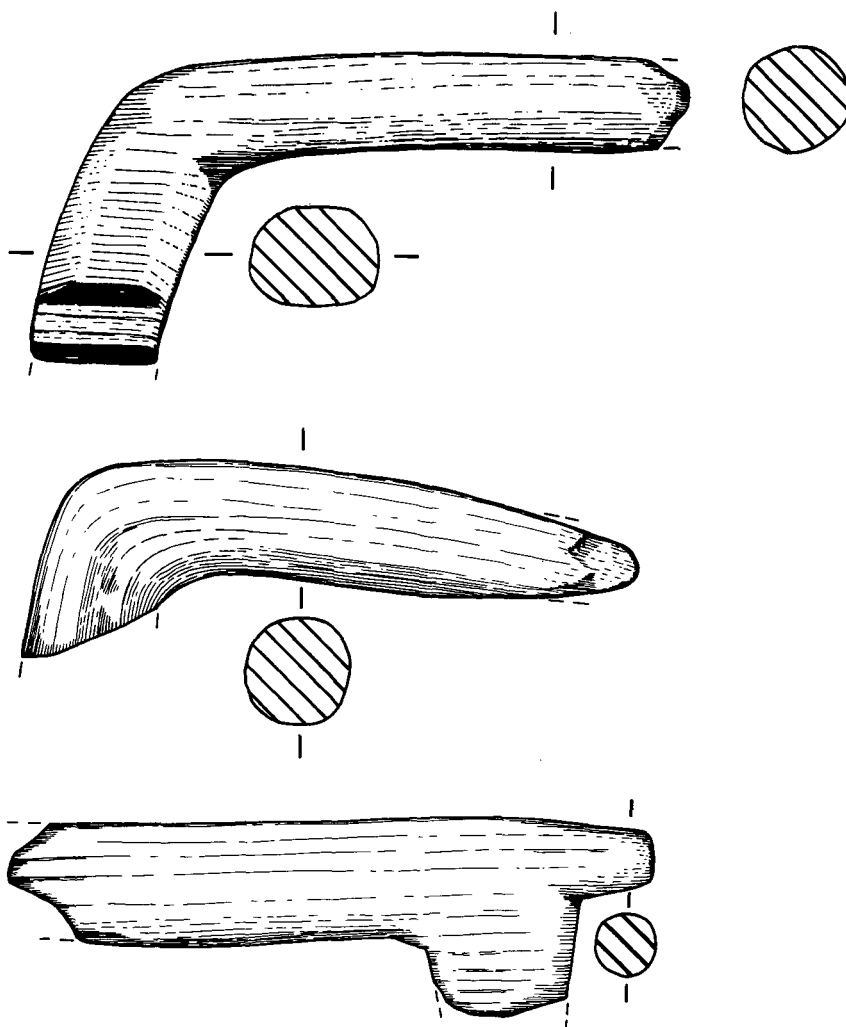


ILLUS 11 Pegs, 187, 112, 166, 202 (clockwise from top left) (scale 2:3)

Small pegs or pins such as *114* and *152* (illus 10) may also have been used to secure mortice joints but in slighter structures or equipment. Number *152* (illus 10) is small enough to have been for dress fastening but lacks a point. Small pins may also have been used as dowels. A number of such dowels is recorded as having been charred. Perhaps they were being fire-hardened and were accidentally burned.

HANDLES

Two main types of handle have been identified. Many of these were likely to have been part of metal tools used in woodworking, leatherworking, etc. Few now survive intact. One probable example, *195*, is formed of a short (65 mm) length of roundwood the top end of which is socketed. This hole is circular (14 mm diameter) lacking any toolmarks. It is possible that it was cut using a bow drill (illus 13). The hole of a second similar example, *23*, appears to be unfinished and shows signs of charring.



ILLUS 12 Handles, *157*, *147*, *29* (scale 2:3)

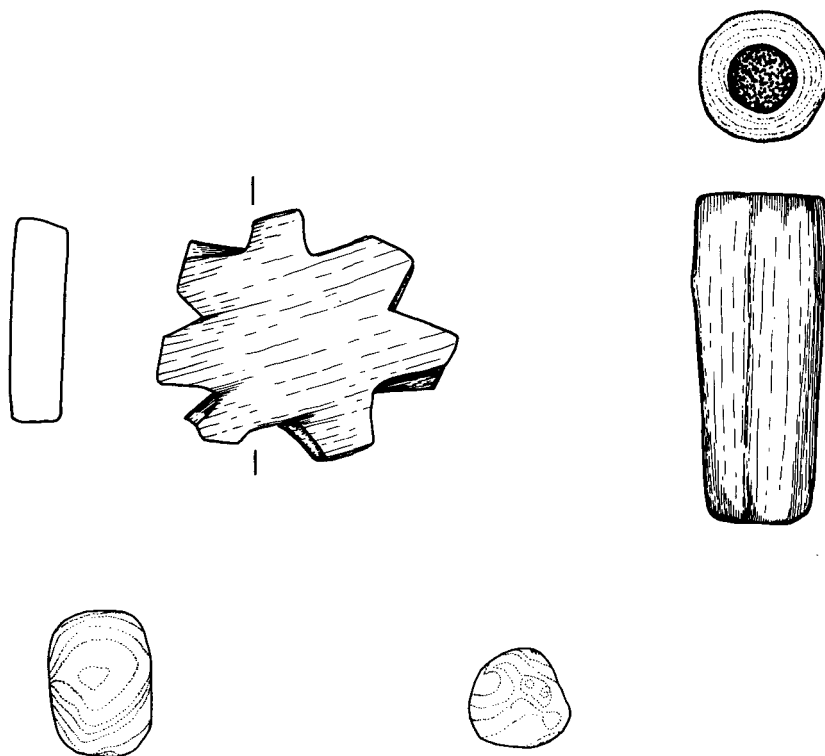
A number of socketed handles with similarities to the Loch Glashan examples are recorded from Ballinderry crannog 2 (Hencken 1942, fig 26, W4 and W154). It is likely that handles such as these belonged to tools such as chisels, gouges, awls, etc, used in wood- or leatherworking. The usage of such types stretches from the late prehistoric period to the present day. Functionally similar examples include handles from Glastonbury Lake Village (Bulleid & Gray 1911, figs 71: X9 and 73: X11; Earwood 1988). A set of contemporary socketed wood and bone handles were found together in a wooden box at Birsay, Orkney. These may have been handles for wood-carving or leather-working tools (Stevenson 1952).

Other handle fragments have either curved sections, probably originally semi-circular or bow-shaped. These are now broken at both ends and may have been integral parts of wooden tools, vessels, boxes, etc. A straight handle fragment, 29, has the remains of a portion set at right angles to the main bar. One end is complete, the other broken. This could have been part of a tool handle; alternatively it may also have been attached to a lid or box (illus 12).

Two handle fragments from Lagore (Hencken 1950, fig 80, W119) and Ballinderry crannog 2 (Hencken 1942, fig 27, W164) echo the shape of 147 and 157. It is possible that these are portions of broken handles from scoops such as those from Lagore (Hencken 1950, fig 79, W22 and W24).

MISCELLANEOUS

These include unidentifiable objects, few of which now survive. Most unusual amongst them is a cog-shaped piece of flat wood with seven teeth (16). It is now distorted. If indeed it was intended as a cog wheel it remained unfinished as there is no central hole or attachment point (illus 13). A similar



ILLUS 13 Cog-shaped object, 16, handle, 195 and possible gaming pieces, 123 and 151 (scale 2:3)

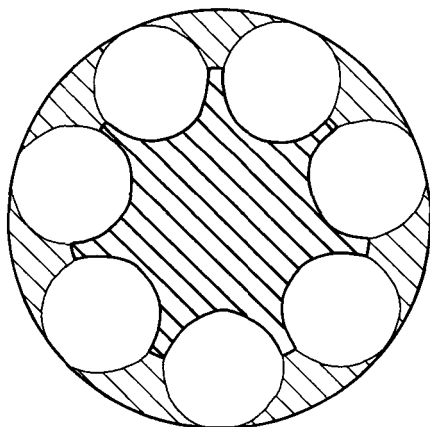
object with a diameter of 85 mm and a central circular hole was found at Lochlee crannog (Munro 1882, fig 122). Another explanation for this curiously shaped piece of wood may be found by comparison with contemporary woodworking techniques at the Viking site of Haithabu, north Germany. A considerable quantity of similarly shaped fragments of wood has been convincingly demonstrated to be the waste product from cutting large holes in thin boards. These were produced by augering a number of holes around the circumference of the desired hole. Each augered hole slightly overlapped with the result that when the last one was cut an irregular hole was produced in the board. The irregularities could subsequently be removed with a file (Wikinger Museum Haithabu) (illus 14).

Two small, nearly wooden balls (123 and 151) may have been gaming pieces. They are similar in size having diameters of c 30 mm and 20 mm respectively. Both have been carved from pieces of wood with intricate grain patterns. These create a decorative pattern over the surface which was no doubt originally emphasized by polishing (illus 13).

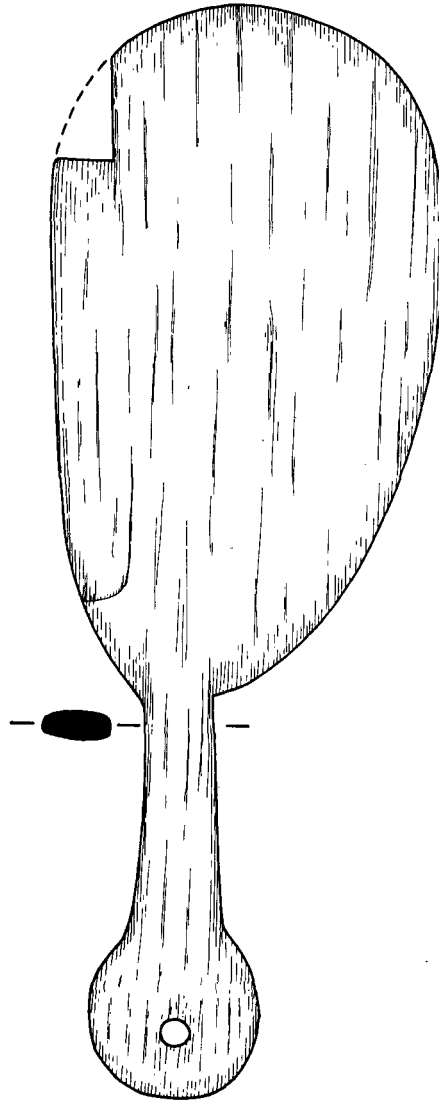
Other identifiable artefacts include wooden wedges, a possible broken spindle, a spindle whorl (17), a paddle-shaped tool (119) and a paddle (8).

The tool, 119 (illus 15), is 440 mm long with an asymmetric blade and handle through which passes a circular hole. Although it is not possible to suggest the exact function of this implement perhaps in this case ethnographic parallels may suggest a clue. It is strikingly similar to a Polynesian club in the ethnographic collection of the Glasgow City Museum. Another possible use could be as a beater perhaps in the preparation of textile fibres such as flax. Beaters of similar shape were used for breaking the flax stems after retting in the 19th and early 20th century prior to the mechanisation of the industry. A wide range of shapes and sizes of flat beaters were known from rectangular to fan-shaped ones (de Wilde 1984, 317).

The number and diversity of wooden artefacts found at Loch Glashan demonstrate not only the wide range of uses to which the material was put by these crannog dwellers, but they also provide an insight into contemporary domestic life. The striking parallels between the wooden turned vessel and imported pottery (illus 7) are illustrative of the value and desirability of many of the wooden household utensils. The significance of typological similarities between vessels and tools from Loch Glashan and contemporary sites in Ireland are harder to assess. They may be indicative of a cultural exchange of ideas and techniques if not of people and of goods. One striking difference between the



ILLUS 14 Reconstruction of method of producing large holes, resulting in a cog-shaped waster



ILLUS 15 Club or beater, 119 (scale 2:3)

range of wooden artefacts from Loch Glashan and Early Christian sites in Ireland is the complete lack of stave-built containers.

Further analysis of the innovation and spread of woodworking techniques and cultural ideas will be made possible by the investigation of a greater number of waterlogged sites in both countries.

ACKNOWLEDGEMENTS

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