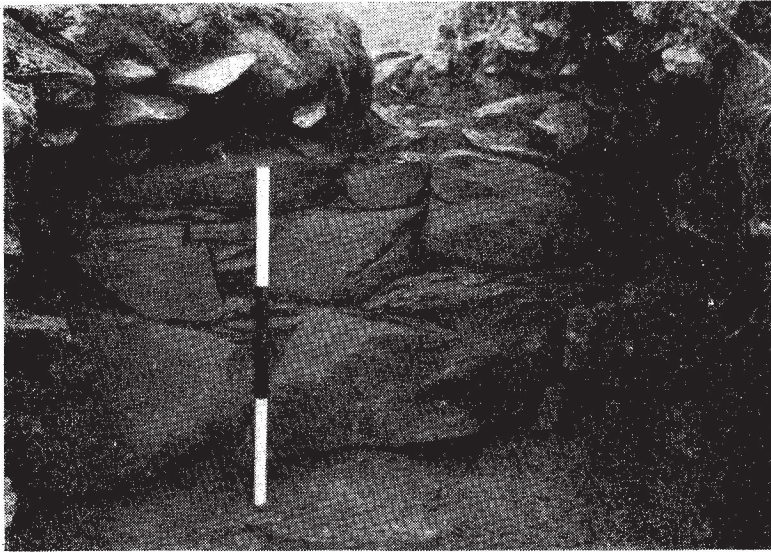


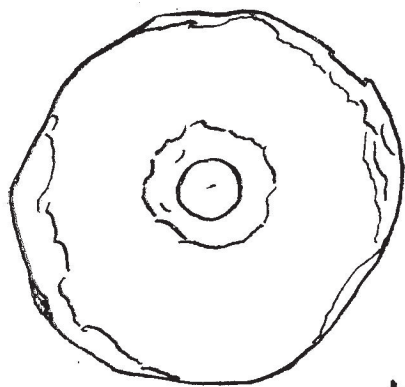


Inside Wall of Fort

[Photo: J. Bedgood]



COMB



WHORL



Finds: Dun Scalpsie

CORN KILNS IN BUTE

By ISABEL D. MILLIGAN, M.A.

In May, 1961, Miss Marshall drew my attention to a mound in a sloping field on the west side of the road from Port Bannatyne to Rhubodach, before Ardmaleish farm house (O.S. 073689). From its general outline Miss Marshall believed it to be a corn-drying kiln similar to one excavated by Dr. Marshall in 1935 at Kilwhinleck.¹ (O.S. 055625).

With the kind permission of Mr. D. McKinnon, who allowed us to dig his field, I undertook the excavation of the mound, assisted by members of the Junior Natural History Society and friends.

On excavation we found a very well-preserved kiln for drying corn. A flue, ten feet long, runs from the base of the mound, on the seaward side, into the bottom course of the side wall of the chamber of the kiln. It slopes slightly upwards and narrows from two feet square at the outer mouth to one foot square where it enters the chamber. The chamber is extremely well made. Roughly funnel-shaped, it is built of stones bound together with clay. Some of the stones are dressed and we were impressed by the neatness of the construction of the wall in which there are seven or eight courses, rising to a height of four feet from the base of the chamber.

Further excavation revealed that the kiln is bounded by a semi-circular, retaining wall extending on either side of the outer end of the flue. On the southern side the wall is carefully built and of five courses, rising from two feet to three feet, whereas on the northern side the wall is not nearly so well made and has only about three courses. We could not trace a complete wall on this side. In between these walls and the structure of the kiln itself stones have been packed at random to form a mound.

Behind the kiln we had noted what appeared to be the foundations of a small barn. Excavation of sections of the outline revealed the foundations of the south and west walls and the north-western corner. Again we were unable to find a complete wall on this side. The foundations we did find were uniformly of one course and there was little tumble by the sides of the walls.

In the southern wall we found a threshold. Several flat stones outside it may have formed crude steps or paving.

There does not seem to have been any substantial wall between the barn and the kiln. At the point where the barn wall joins the retaining wall of the kiln on the south side there is what might have been the corner of a division and in line with this were one or two slabs of stone, some set on edge, some lying flat, which may possibly have been part of a barrier between the two structures.

The barn floor was beaten earth.

It is interesting to note that the retaining wall of the kiln curved under the barn wall slightly on the south side, suggesting that the barn may have been built later than the kiln.

At the foot of the chamber of the kiln we found several thin alternating layers of greyish and dark brown clay in which chaff, ears of corn and seeds of weeds were embedded. The layers were too thin to be analysed properly but the greyish material appeared to be peat ash and the darker layers a mixture of debris and dirt which had accumulated between dryings.

Between this and the earth filling the kiln was an irregular layer of moist, black peat-like material. We also found a distinct layer of this substance in the course of our attempts to find the missing sections of the retaining wall and barn wall on the north side. There it was about two to three inches thick, running at a level of ten inches below the present ground level. Mr. Malinski of the Science Department in Rothesay Academy kindly analysed a sample for us. To him it seems very similar to peat at the stage before it turns into coal except that he could find no trace of fibrous material, such as small roots, found in true peat. His

analysis showed that it contained large proportions of carbon and iron.

The carbon could be the remains of burnt material, such as straw or thatch. No trace of charred wood, however, was found, such as might be expected if at some time the building had gone on fire and this black layer was the debris. It is doubtful, too, whether the ash formed by such a fire would amount to a layer almost three inches thick. As the soil above the layer, within and without the kiln, is similar to the soil in the field round about, it seems possible that, when the kiln went out of use the soot-laden thatch was allowed to fall in. The farmer may have filled in the kiln and the material of the collapsed roof has decomposed to form this peaty substance.

Throughout the excavation we had come upon traces of iron nails, some about four inches long, which unfortunately disintegrated on being disturbed. About fourteen inches from the top of the chamber of the kiln we encountered a broken "seam" of iron running through the soil filling. This may account for the presence of iron in the sample analysed.

Unfortunately we did not find anything which might have helped us to date the kiln. Our only substantial finds, three unrelated pieces of iron, were identified for us by Mr. A. Fenton of the National Museum of Antiquities. One was part of a coulter of a plough, the second was identified as part of a farmyard pump and the third as part of the back of a cast iron fireplace of the Victorian era.

In April and October this year we uncovered an even more interesting kiln near St. Blane's Chapel (O.S. 095534). The kiln is situated to the north of the chapel, immediately outside the cashel wall, between the socket stone for a cross and the gateway. An old turf field dyke runs across the front of it.

Before excavation the only indications of its existence were a slight, saucer-shaped hollow in the ground and the top of a possible lintel stone.

We dug a trench, five feet wide, at right angles across the dyke and revealed the remains of the flue. It is almost

ten feet long and is two feet wide and two feet high, the width and height are the same throughout. Unlike the flue in the Ardmaleish kiln, it does not slope at all but is quite level. The stones used in the construction of the flue show definite signs of exposure to great heat; some have been burned red and parts of them have become quite friable. In the course of clearing out the flue we removed ash and cinders which indicate that the fire must have been in the flue.

Only two of the lintel stones had remained in position. One of them had broken in two and had to be removed during excavation.

An interesting feature of this kiln is a stone laid across the floor of the flue just before its entrance into the chamber of the kiln. This was probably an arrangement to encourage the draught and to prevent burning embers from drifting into the chamber.

Further excavation uncovered the chamber itself. In shape it is much the same as the Ardmaleish one but is more crudely built. The stones are unfashioned and not arranged in regular courses. The sidewall of the chamber is incomplete where stones have fallen out of position. The natural rock forms the floor of the chamber.

Around the top of the kiln we found traces of a low, semi-circular wall which had served to support the stones and tightly packed soil which kept the side wall of the kiln in place.

It was at the base of this one course wall that we found three separate sherds of pottery all of a rather coarse gritty ware with a greenish glaze on one side. Miss Marshall recognised them as being similar to sherds found in the long-houses at Dunagoil which have been dated back to the twelfth or thirteenth century.

Other finds include some fragments of iron slag in the flue and a lump of almost pure limestone, about the size of a fist, just outside the retaining wall. It is unlikely that the kiln ever was used for burning lime because in a lime kiln the fire is in the chamber with the limestone whereas in this kiln the fire obviously had been in the flue.

I have been told that loads of burnt lime delivered to farmers to spread on their fields sometimes contain nodules of unburnt limestone. As this is the only limestone found near the kiln and as no limestone of such purity occurs locally, its presence seems to be merely coincidental.

Nothing was found in the soil filling the chamber of the kiln and there was no stratification.

If the evidence of the sherds of pottery can be depended upon it seems probable that this kiln dates back to early medieval times, 12th or 13th century, perhaps even earlier. I do not think it unreasonable to suppose that it could have been one of the out-buildings in connection with the monastic settlement at St. Blane's.

In order to dry corn in a kiln, a fire was lit either at the outer end of the flue, or at the bottom of the kiln itself. At St. Blane's the fire had obviously been in the flue while at Ardmaleish the fire seems to have been at the base of the chamber of the kiln. Once the fire was red and glowing, fanned by the draught from the flue, and had ceased to give off flames and smoke, slats of wood were placed across the mouth of the chamber of the kiln. A bed of straw would be carefully arranged over these "ribs" and on it would be scattered the corn to be dried. The grain was sometimes spread on a linen sheet laid over the straw. We do not know what the roof of the kiln was like, or even if it had one. Similar kilns in Ireland have been described as being "open at the top while some had a conical roof of timber and thatch no smoke hole, but a hatch of straw-covered wattle in the slope of the thatch gave access to the chamber."²

In times of wet harvest the corn might be dried in the sheaf before stacking or thrashing.

Corn-drying kilns of different types were general throughout Scotland right up to the beginning of the nineteenth century. Every farm or farm "toun" had its own kiln where the corn required to supply the immediate needs of the farmer and his family was dried before being ground by hand querns. Bute seems to have been no exception for, as well as the three already mentioned — Kilwhinleck,

Ardmaleish and St. Blane's, several others have been found. At Ardnagave (O.S. 003707), a small, deserted farm in the hills behind Kilmichael, there is one which seems to have served two, perhaps three, families, and over the hill in Glenmore a similar kiln can be seen near the ruins of the steading of what was formerly known as Achavoulig Butt (O.S. 020709). Not half a mile from St. Blane's Chapel, near the ruins of the old farm of Kingaven (O.S. 095537) there is another one in a good state of preservation. Another of the same type can just be distinguished among the meagre remains of the old township of Chapelton (O.S. 075625) by the side of Loch Fad.

At Garrochty (O.S. 093526) there is a smaller structure of the same type which is very probably a corn kiln.

Apart from those at Garrochty and Ardmaleish all the kilns have been found on sites which have been deserted for at least one hundred and fifty years, but a set of plans, drawn in 1780-82, of some of the farms of Bute shows that many of the farms still occupied today did have kilns at one time. Sometimes the kiln is shown on the plan; sometimes the names of fields such as "kiln field," "kiln fauld," "kiln butt," or "kiln how" indicate the former existence of a kiln.

Farm kilns for drying corn went out of use around the end of the eighteenth century and the beginning of the nineteenth. Due to improvements in methods and the introduction of new crops farmers were becoming more efficient and prosperous. The old feudal services were being swept away; in 1759 the Earl of Bute converted the larger part of the rent into money and gave up all the services the tenants were obliged to pay him. No longer was oatmeal the staple diet, potatoes were beginning to take its place. The farmer was now able to dispose of his corn as he pleased and with better crops and rising prices he found it more convenient and economical to send his corn to the mill to be dried and ground. It is reported in the Statistical Account for Kilsyth, 1796, that "about 50 years ago every farm had its own kiln for drying corn. Now a common kiln is built at the mill where the farmer gets his corn dried at 6d. per boll." By

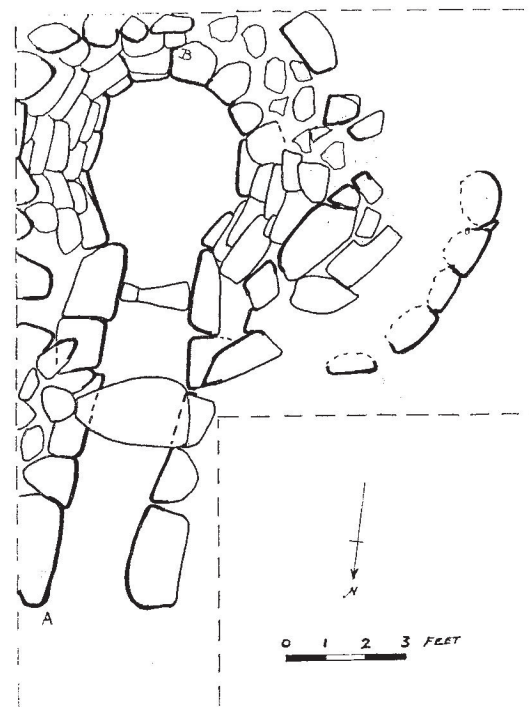
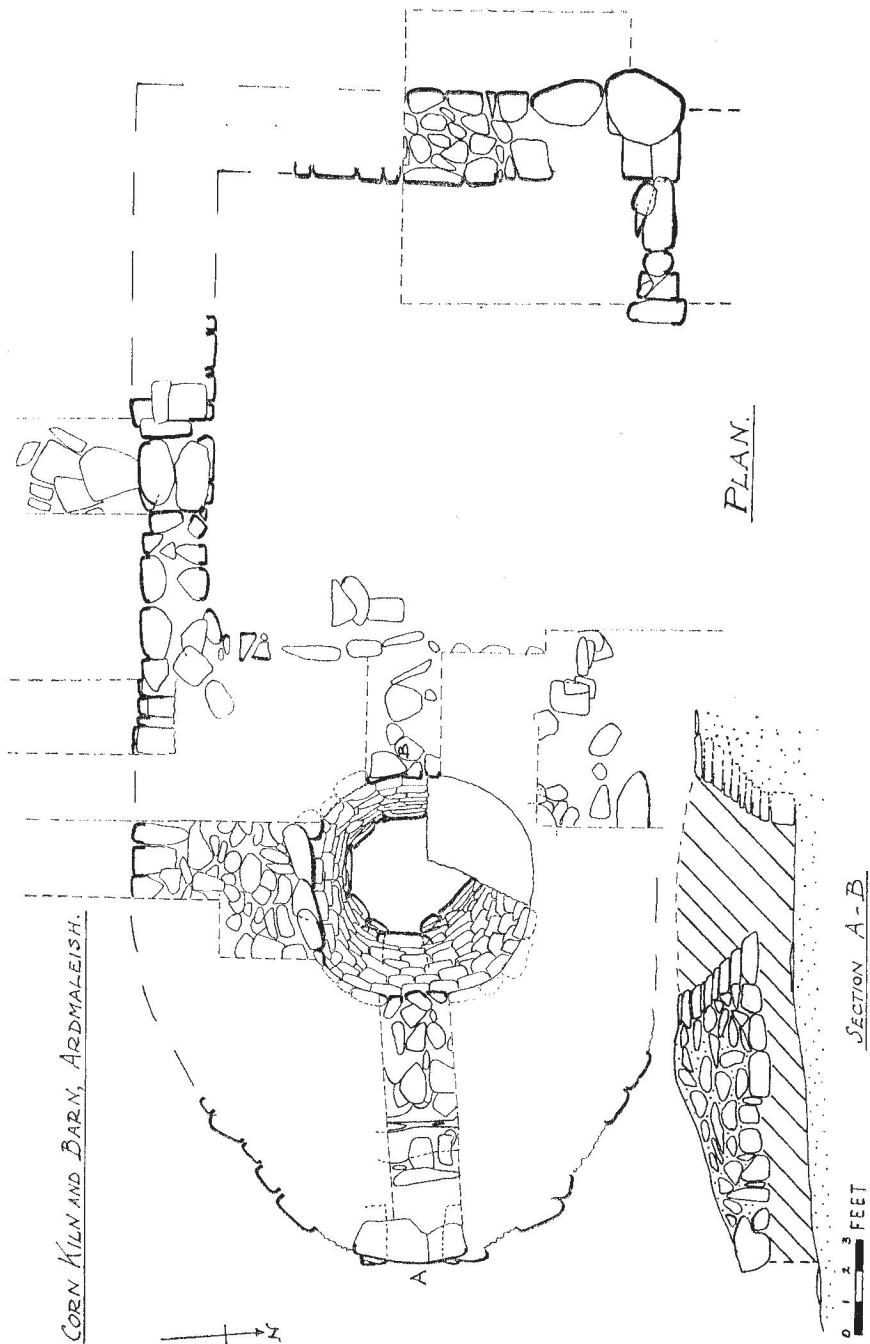
1865 there is nothing to indicate on any Ordnance Survey plans the presence of corn-kilns in Bute. What had once been a common adjunct to the farmyard had fallen into disuse and almost entirely disappeared.

I would like to record my thanks to the members of the Junior Natural History Society and pupils of Rothesay Academy for their valuable assistance in the excavation of the kilns and in particular David Gillon, Robert Wood, James Lucas, James McDonald, Patrick Varney, Joseph McKay, Alfred Slaven, Andrew Dooley and Derek McNeillie.

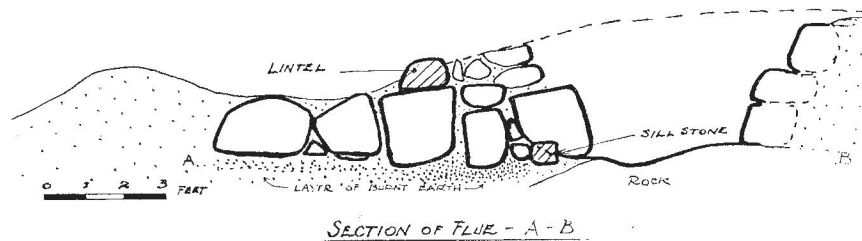
1. Transactions of the Buteshire Natural History Society, Vol. XI (1935).
2. P.R.I.A. (1906-7) H. T. Knox, p. 265.
3. It is interesting to compare the cornkilns on Bute with one found by Mr. J. Ferrier at a deserted township at the head of the glen behind Fearnoch, Colintrave. It has the same "tobacco-pipe" shape as the Bute ones and is in good condition.
4. NOTE:
Extract from a letter to the Editor of the Bute Record of Rural Affairs, June 1841, from "Argus":—
"the general custom in Bute now is to bind up the hay into sheaves immediately after being cut and then after standing for a short time . . . to thrash it off while yet in a green and often damp state Another plan which most people adopt when their seed is in this state, thrashed soft and green, is to kiln dry it."

Since going to press two other corn kilns have been located, one at a deserted site Glenvoidean (OS 998707), on the Kilmichael Farm, and the other in Lenihulin Wood (OS 998699). It is also connected with an abandoned farm.

CORN KILN AND BARN, ARDMALEISH.

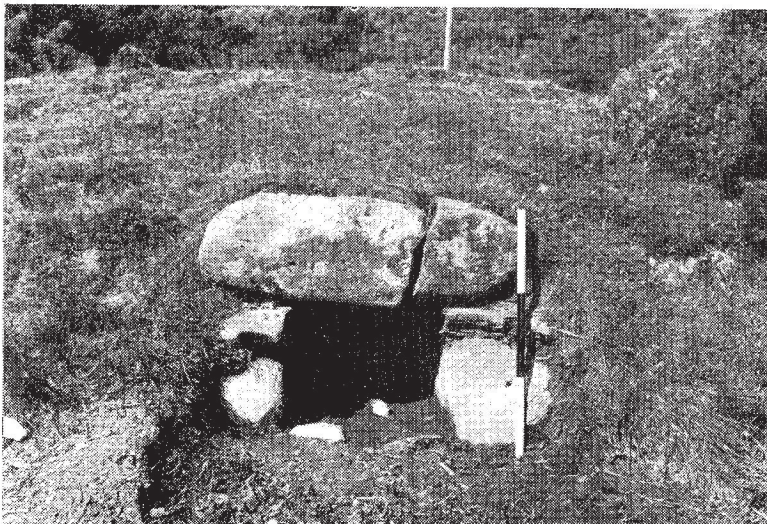


CORN KILN, ST. BLANE'S - PLAN





[Photos: D. Marshall]



CORN KILN, ARDMALEISH

1. Bowl of Kiln

2. Mouth of Flue

THREE ARCHAEOLOGICAL INVESTIGATIONS

By DOROTHY N. MARSHALL

Hut Circles at Dunalant (OS 051639)

On the hill above Dunalant farm is a well defined fort with ramparts. In "Bute in the Olden Times" J. King Hewison mentions hut circles lying within the outer rampart on the North West side of the hill. When examined in 1955 these were found to be slight, irregular, depressions in the grassy slope of the hill. The best defined of these, 14' in diameter, was excavated but no trace of occupation or of hut walls was found. The low ridge edging the hollow was found to be an outcrop of natural rock. Some soil may have been removed from the area to use in the making of the rampart so leaving a depression. The rampart ran just outside this hollow. The excavation showed that this wall had been well built with a firm packing of clay at the lower stones.

Members of the Junior Naturalists and senior pupils of the Rothesay Academy helped me to carry out this investigation.
Vol. I., Pg. 37.

A Group of Large Stone in the Kingarth Wood (OS 092554)

Three spectacular stones, set in an arc, stand over 7' high in the wood at Kingarth. Two are conglomerate, an unusual stone to be used in such monuments. The third and most massive is of micaceous schist. It is 9' high and 23' in circumference.

When Blain described them in the late 18th Century there were seven stones in the complex.

110 yards north of them massive stones could be seen covered with moss and earth. In April 1961 these stones