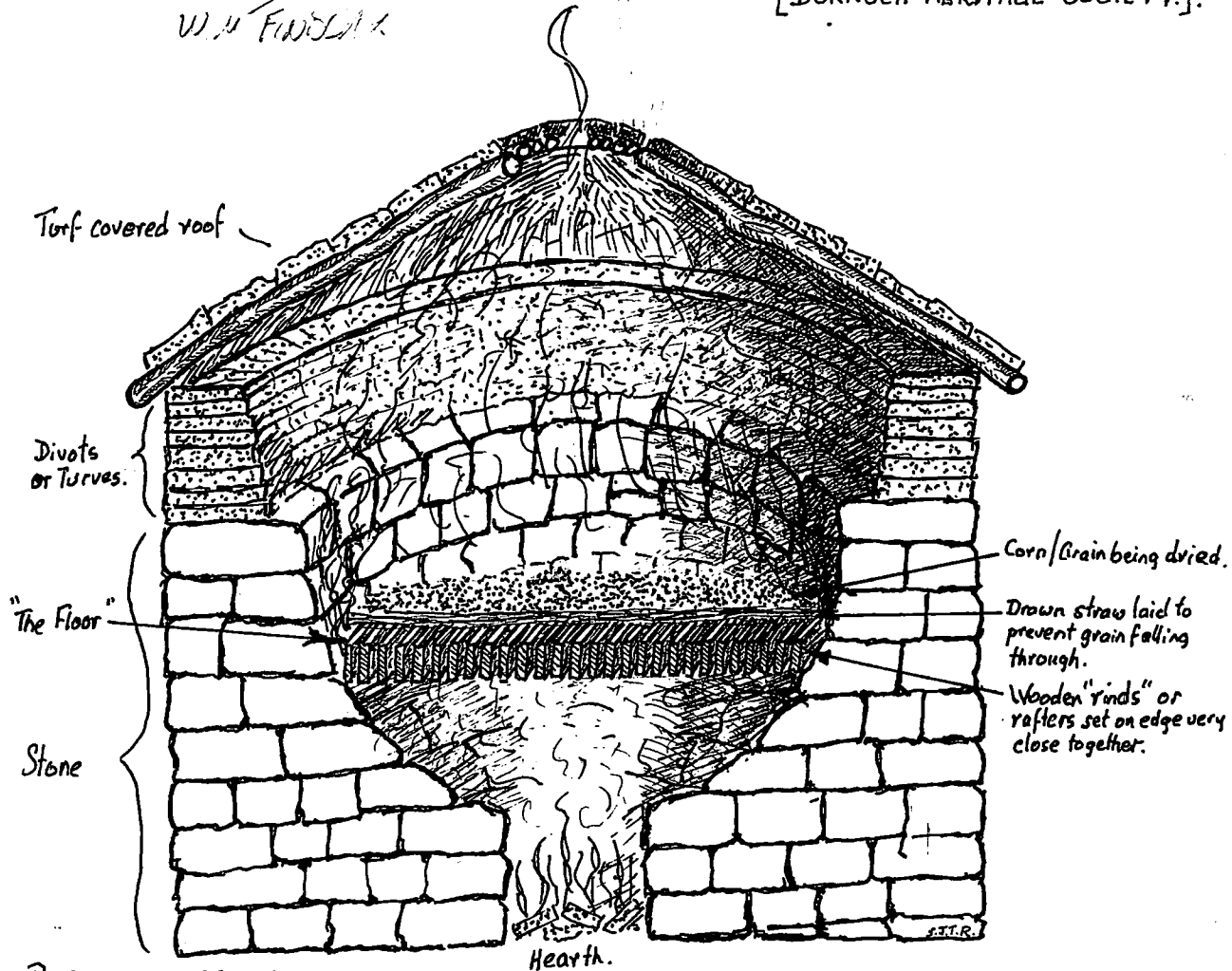


A RECONSTRUCTION OF THE PROBABLE ARCHITECTURE OF THE SUTHERLAND CORN-DRYING KILN — AFTER FENTON.

W. H. FENTON

[DORNOCH HERITAGE SOCIETY.]



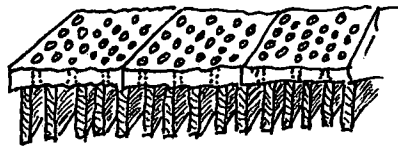
DIAGRAMMATIC CROSS-SECTION.

In the earliest basic construction (above) "The grain was placed on rafters covered with straw"—[Dr Ethick Graham in "The Agriculture of Stirling"]. The Statistical Account on Kirkmichael in Ayrshire in 1793 states that "They were miserable machines at which much time was consumed and the grain horribly abused". George Robertson, in 1829 reported "In the old kilns which were floored with wooden rafters, laid at small intervals from each other, to prevent the corn from falling through, were covered with loose straw on which (the grain) was spread over a fire kindled in the "loggie". Accidents not infrequently took place owing to the fire catching the straw and thus setting fire to the kiln and burning the corn."

Later construction of the "floor" of the kiln involved the same wooden rinds or rafters, but laid with slates, tiles or flat bricks, perforated with a series of small holes.

Professor John Cruickshank of Aberdeen wrote that "Instead of the baulks and drawn straw, perforated bricks and tiles came into use about 1798. The holes in the tiles were small enough to prevent the grain from falling through:—

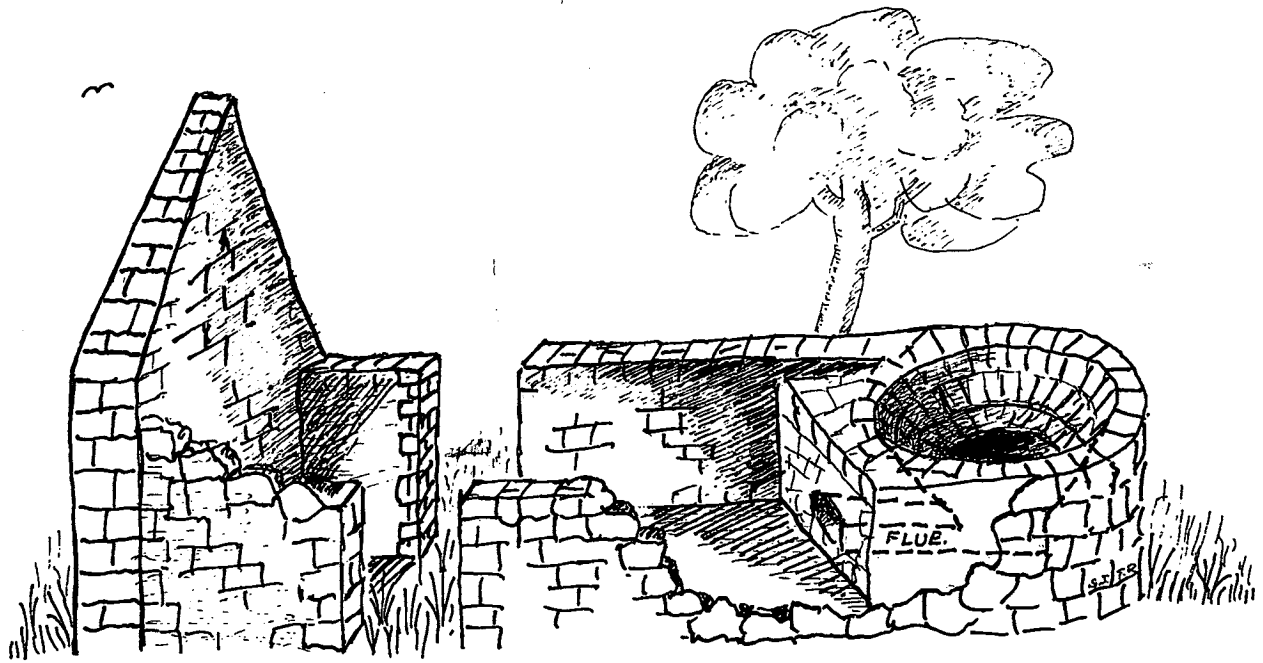
Tile Floor.



By 1794 — "There are three kilns with fettling of cast iron floors for drying grain" — Statistical Account of Callander in Stirlingshire. George Robertson writing in 1829 in "The Progress of Improvements in the Scottish states," "Now the rafters are of iron bars, set edgewise and covered neatly with perforated flat bricks on which the corn is neatly spread"; while Keith, in his "Agriculture of Aberdeenshire" of 1811 writes of Wester Fintray farm that they had "Lately slated a kiln barn in which an iron-plated kiln dries 4 bolls (= 3qr) of corn at a time". Captain John Henderson writing on "The Agriculture of Sutherland" stated that at Skelbo Farm "The kiln is 14 feet in diameter and the corn is dried upon plates of sheet iron supported by cast iron bars. These iron kiln-plates were usually twelve inches square

A RECONSTRUCTION OF A CORN-DRYING KILN IN IONA

from : Miss M.E.M. Donaldson in "The Western Highlands and Islands", 1920.



The drawing attempts to depict Miss Donaldson's descriptions as accurately as interpretative concept allows. It shows the "Semicircular end area (at one end) and the remains of a gable at the other, and close to this end two doors are opposite each other, one in each wall. About two-thirds of the interior at the rounded end consists of a raised stone platform three feet and three inches (1 metre) high, in the centre of which is a funnel-shaped pit with which a channel piercing the basement of the platform (in dotted lines) communicates from the front, which would supply the necessary draught."

Taking this identical architecture, but modifying it by simply substituting the hemispherical, or bowl-shaped kiln traditional in East Sutherland, together with two front fire-holes and flues, and recessing this round end into the side of a hill or mound — thus precluding the need for a rounded opposite end, conserving heat and economising in stone, and you have the traditional East Sutherland Corn-Drying Kiln epitomised by the Loch Laro (Puill Fraoich) Kiln, near Bonav Bridge.

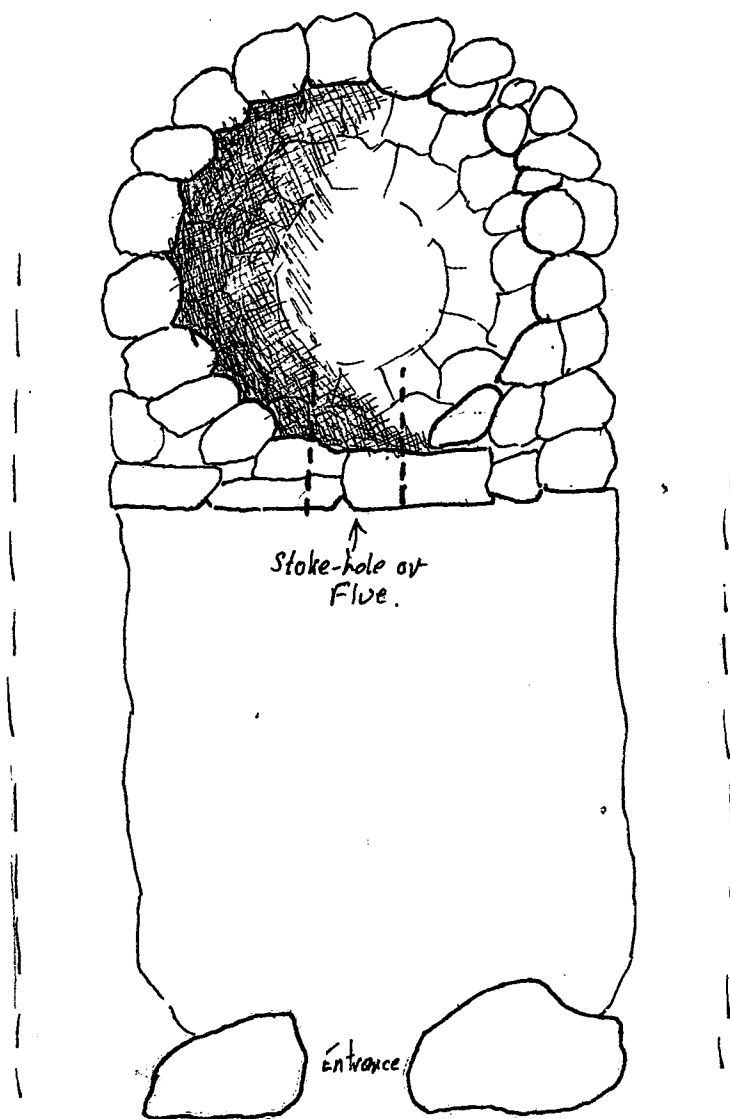
[DORNOCH HERITAGE SOCIETY].



Plan view. The walls and gable end are much disintegrated. The kiln is complete and ranks amongst the best preserved of all known kilns in the North East of Scotland. It is distinctive by having two separate stoke-hole/flue systems, and the whole building is recessed into the hill behind. The two doors face north west and south-east respectively. The stoke-hole on the north-east side measures 7" x 18" while the other measures 24" x 15" and are set in the front of the kiln. Excepting the hemispherical shape of this kiln, and the two firing apertures or stoke-holes, the resemblance to the Iona kiln is extremely close.

CORN-DRYING KILN AT ACHTADUAIG IN STRATH CARNAIG, DORNOCH, SUTHERLAND.

The kiln is in fair preservation, apart from its rim, and illustrates the bowl, or hemispherical shape favoured in East Sutherland construction. It would seem to differ from the standard design in having a single, north-facing, entrance and here two large naturally-sited rocks have been utilised to this end. There is very little left to indicate lateral walls, or gable construction, but the rectangular, rather than rounded front facade of the kiln is well defined. Here the lintel to the single hearth or stake-hole has cracked through and undergone displacement possibly by a combination of heat effect and ground subsidence, and a large recess above this might have been used as a warming oven. The whole is recessed into the side of the hill, with a small rectangular barn or grain-store lateral to, and south-east of it. The site is at about 475 feet in elevation, high-up on the south flank of Strath Carnaig, more or less opposite to Dalnamain. [O.S. Ref NH 79/89 728.978.]. [Visited Wednesday 17-2-1966.].



THE ACHTADUAIG CORN-DRYING KILN.



[Ref: 88/3/17-17A.]
The slab-fronted facade of the kiln showing the fracturing of the lintel to the single, mid-line flue or stoke-hole, and slight subsidence of the right-hand side. The recess above the flue-lintel could have been used as a warming-oven, if artefact, or stones might have been removed to take weight off it and prevent further displacement.



[Ref: 88/3/18-18A]
View from the entrance looking towards the kiln facade, illustrating the largely amorphous nature of the residual stoneworks. The great boulders defining the entrance are in the foreground.

THE ACHTADUAIG CORN-DRYING KILN.



[Ref: 88/3/15-15A.]

View from the top looking northwards down into the bowl of the Kiln. The destruction of the rim is evident, despite being largely overgrown by heather and brocken.



[Ref: 88/3/16-16A.]

View from the top (south end) of the kiln, attempting to embrace the whole site. The anterior lip of the Kiln, much ravaged, occupies the foreground, while MA J.K. Bell, President of the Dornoch Heritage Society stands on the remains of the left-hand wall—his angle of inclination being the result of camera parallax!