

### 3. LOCAL MANUFACTURE OF NEOLITHIC POTTERY.

The discovery at the Neolithic occupation site of Eilean an Tighe, North Uist, of kilns in which pottery had been manufactured on a considerable scale and over a substantial period of time was reported in a paper read before the Royal Anthropological Institute on 24th January 1939, and summarised in *Man*, vol. xxxix. p. 25. The similarity of the latest products of these kilns to pottery of the Unstan bowl type from Orkney, and particularly to a bowl from Rousay, suggested the possibility that the factory might have worked to

some degree for export, and it seemed desirable to test this possibility by petrological examination of sherds from North Uist and Orkney sites. Through the kindness of my friend Dr W. F. P. McLintock, Deputy Director of the Geological Survey, and of Dr J. Phemister, Petrologist to the Survey, fourteen sherds were examined as set out in the attached reports. Through the good offices of Professor Gordon Childe and Mr A. J. H. Edwards, sherds were made available for examination from sites in North Uist, Skye, the Orkneys, Aberdeenshire, and Luce Bay.

In Dr Phemister's opinion, which Dr McLintock shares, the evidence for local manufacture was in each case conclusive. The possibility of a Neolithic trade in pottery is naturally not excluded by the negative evidence of fourteen sherds, but it is rendered less likely. It is to be hoped that in future more extensive use may be made of the method of petrological analysis in the study of pottery; the efficacy of the method, which has been doubted, is conclusively shown by these reports.

W. LINDSAY SCOTT.

REPORT BY DR J. PHEMISTER ON SAMPLES OF NEOLITHIC POTTERY  
FROM SCOTTISH SITES.

*Four Sherds from Eilean an Tighe Occupation Site, North Uist.*—These are all of one type, showing fragments of quartz, quartz and microcline, quartz and oligoclase, microcline, hornblende, hornblende and feldspar (with and without quartz), sphene, epidote, and biotite. The latter five constituents are of small size and usually are present as single crystals, composite grains reaching not more than 0.8 mm. in length. They are derived from biotite-schist and epidotic hornblende-schist or hornblende-feldspar-rock, and appear to have been intentionally ground fine. The other rock constituents of the sherd are of variable size but reach 3-4 mm. in length. They are derived from granite or gneiss. All are derived from rocks native to North Uist.

*Sherd from Taiverso Tuick Chambered Tomb, Rousay.*—The fragments include both igneous and sedimentary rocks. The former comprise hornblende-lamprophyre (camptonitic), and an obscure fine-grained type which may be a marginal variety of the lamprophyre. The sediments include coarse and finer-grained micaceous flags with decomposed feldspar, and gritty micaceous mudstone. Quartz grains are numerous, and are of larger size than in the fragments of sediments. Presumably they were added as sand and not as crushed rock.

Igneous and sedimentary rocks of these types are usual in Rousay.

*Sherd from Unstan Chambered Tomb, Loch Stenness, Orkney.*—The fragments include both igneous and sedimentary rocks. The former comprise monchiquite, containing fresh olivine; iron impregnated feldspar; and an obscure felsitic or silicified rock containing prehnite. The sedimentary fragments comprise fine-grained sandstone, red flag, and mudstone. A small grain of a hornblendic hornfels is present.

The main rock fragments, *i.e.* of monchiquite, sandstone, flagstone, and mudstone, are native to this area.

*Sherd from Glenluce Occupation Site, Luce Bay.*—The rock fragments in this specimen are small, and are mainly represented by fragments of single crystals. These are aggregated in some cases in such a manner as to suggest that sherds of earlier pottery were used as grog. Recognisable rock fragments include a microporphyrific rock of the andesitic or silitic class; a small

fragment containing fresh augite and probably representing dolerite; quartzite; micaceous sandstone and gritty shale. Fragments which may be old sherds are composed of quartz, turbid plagioclase, fragments of felsitic and andesitic rocks and of hornblende-porphyrite, fragments of hornblende, augite, and epidote, all cemented by an opaque red-brown cement like that of the main sherd but of much less amount.

The rock material is not easily diagnosed owing to the smallness of the fragments, but the minerals and rocks seen could readily be derived from the sediments and igneous rocks found locally in place or as gravel.

J. PHEMISTER.

3rd February 1941.

#### SUPPLEMENTARY REPORT.

*Sample 15. Chambered Tomb, Unival, North Uist.*—The mineral fragments include quartz, microcline, oligoclase, hornblende, epidote, sphene, and the rock fragments show these minerals in combination as oligoclase-microcline-granite, epidotic hornblende-schist, and granular quartz-oligoclase-gneiss.

*Sample 23. Chambered Tomb, Rudh'an Dunain, S.W. Skye.*—The mineral fragments are mainly quartz, and subordinate plagioclase and augite. The rock fragments include feldspathic sandstone and tholeiitic basalt.

*Sample 25. Chambered Tomb, Blackhammer, Rousay, Orkney.*—In addition to quartz grains there are fragments of fine-grained argillaceous sandstone, quartzose sandstone, and flagstone.

*Sample 27. Chambered Tomb, East Finnercy, Dunecht, Aberdeen.*—The mineral fragments are quartz, oligoclase, perthite, microcline, biotite, and subordinate hornblende. The rock fragments include biotite-granite with accessory hornblende, a fine-grained micropegmatitic dyke rock and a granular oligoclase-rock containing myrmekite.

*Sample 32. Chambered Tomb, Rowiegar, Rousay, Orkney.*—Contains, in addition to quartz grains, fragments of fine-grained sandstone or flagstone ranging from fairly siliceous to micaceous and ferruginous, and of a feldspathic biotite-lamprophyre.

*Sample 34. Chambered Tomb, Unstan, Loch Stenness, Orkney.*—Contains, in addition to quartz grains, fragments of gritty mudstone or shale, and fine-grained argillaceous sandstone or flagstone.

*Sample 39. Chambered Tomb, Taiverso Tuick, Rousay, Orkney.*—Contains, in addition to quartz grains, fragments of argillaceous micaceous sandstone or flagstone, and a few small fragments of micaceous feldspathic sandstone.

The assemblages in every case represent the local rocks, and the North Uist, Skye, Orkney, and Aberdeen assemblages are mutually distinct. This series of sections bears out our previous deduction that the grog for the pottery was obtained by crushing the rocks immediately to hand.

(Sgd.) J. PHEMISTER.

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