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PETROLOGICAL EXAMINATION OF PREHISTORIC POTTERY FROM MAVIS GRIND, SHETLAND

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INTRODUCTION

A representative selection of Late Bronze Age - Early Iron Age pottery from Mavis Grind was submitted for examination, together with a fragment of ?crucible and several pieces of weathered pottery/unfired clay. All the samples were studied macroscopically with the aid of a binocular microscope (x 20), and the majority were thin sectioned and examined under the petrological microscope. The object of the analysis was threefold: (1) to determine the mineral content of the pottery and to see if there are any noticeable fabric differences in the sherds submitted, (2) to determine whether visual fabric differences noted in some sherds are real or the effect of burial in peat ash, and (3) if possible to suggest whether the pottery is likely to have been made in the area of Mavis Grind or imported from elsewhere in Shetland.

SAMPLES SUBMITTED:

Rounded and everted rim sherds

(Small find no.)	(Layer no.)	(Phase)
521	148	IV
696	148	IV
750	307	I
1113	343	II/III
1211	325	II

(Small find no.)	(Layer no.)	(Phase)
1532	172	I
1585	324	III
1990	334.	IV
Square and everted rim sherd		
1758	343	II/III
Square rim sherds		
501 + 1359	176	IV
734 + 2624 + 3064	334	IV
2016	337	II
Double everted rim sherds		
522	130	IV
653	125	recent
686	334	IV
1651	310	III
Base sherds		
1213	308	III
1373	124	recent
Unfired clay or decayed pottery		
136	100	unstrat.
163	124	recent
366	124	recent
1620	148	IV
Crucible fragment		
2620	344	III

RESULTS

The pottery is variable in colour but is commonly light to dark grey (Munsell 7.5YR N6/ to 10YR 4/1), often with a silvery

sheen. All of the pottery sherds contain clearly visible inclusions of steatite (soapstone), or associated minerals, which occur throughout the fabric. This is confirmed by selective thin sectioning, which shows that most of the material contains little else but fragments of steatite set in a clay matrix. In addition to steatite, quartzite was noted in sample 501 + 1359, while frequent grains of tremolite, a member of the amphibole family, are present in samples 1113 and 1758. Tremolite is also the main inclusion present in sample 1213. Of the four samples of 'unfired clay or decayed pottery',' three should be regarded as sherds of pottery, albeit much weathered or oxidized by firing conditions. Of these, samples 136 and 366 contain quantities of steatite, while ?serpentine is present in sample 163. The remaining sample, 1620, is unfired clay, which appears to contain none of the above inclusions.

Steatite is commonly associated with both tremolite and serpentine, while quartzite is a not uncommon mineral, and so it seems reasonable to suggest that the above pottery should be regarded as a fairly homogenous group in terms of fabric. In view of this, any apparent fabric differences in the appearance of the sherds must be due to weathering of the material during burial or by variations in firing conditions, etc. As no outcrops of steatite are recorded in the Mavis Grind region, the pottery must have been imported from elsewhere. There is no indication in the thin sections of imported steatite being used in conjunction with local materials. Large outcrops of steatite/talc occur on the northern Islands of Unst and Fetlar, and in Southern Mainland (Nykura,1976), while smaller Mainland outcrops are listed by Wilson and Phemister (1941). Steatite tempered pottery is also known from Late Bronze Age and Early Iron Age occupation at Jarlshof in south Mainland (Hamilton,1956) and at Clickhimin in Central

Mainland (Hamilton,1968). About equal distance from both sites are the steatite quarries of Cunningsburgh, known to have been in use during Mediaeval times, and probably earlier (Hamilton, 1956). A source in the Cunningsburgh area for the steatite-tempered pottery from Mavis Grind should be considered, but at present the idea is speculative.

Thin sectioning of the crucible fragment shows that the fabric of the vessel is quite different to that of the pottery discussed above. The main inclusions appear to be quartz and pyroxene grains, presumably a large measure of sand was added for refractory purposes. A number of additional inclusions are difficult to identify due to the condition of the vessel. If pyroxene has been correctly identified, a fairly local origin would be in keeping with the geology of the Mavis Grind area, the mineral possibly deriving from the local diorite and gabbro deposits.

REFERENCES

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