

Petrological Analysis of Late Norse Pottery

From Freswick Links, Caithness

D.F. Williams, Ph.D., F.S.A.

(DOE Ceramic Petrology Project)

Department of Archaeology, University of Southampton

Eight sherds of Late Norse pottery from Freswick Links, Caithness were submitted for fabric examination in thin section under the petrological microscope. The vast majority of the pottery recovered from Freswick is said to be vegetable-tempered (Batey and Morris, 1979; Batey, Morris and Rackham, 1979; Batey, Jones and Morris, 1980). Most of the above samples contain easily recognizable impressions of chopped grass or chaff, usually in the form of elongate voids, on both the inner and outer surfaces and, in some cases, also in the clay itself. Given this common technological element present in the majority of the Freswick pottery, the object of the analysis was twofold: (1) to characterize the rock and mineral content of the samples to see if there is any significant variation within the group, and (2) if possible to suggest whether the pottery sampled is likely to have been made in the area of Freswick. Munsell colour charts are referred to, together with free descriptive terms.

Petrology and Fabric

FABRIC 1 (stray finds 1980 'C')

Hard, rough fabric with clear impressions of vegetable matter on the inner and outer surfaces of the sherd and in fracture, light buff (7.5YR 7/4) outer surface, darker inner surface and dark grey core. Thin sectioning shows a number of vesicles in the fabric where the vegetable matter has been burnt out during firing, together with frequent well-sorted quartz grains,

average size 0.10mm and under, and flecks of mica.

FABRIC 2 (stray finds 1980 'A' and 'B')

Fairly similar fabric in the hand-specimen to Fabric 1, but in thin section inclusions of sandstone can be seen which were not noted in Fabric 1, together with numerous quartz grains, average size 0.05-.20mm, with occasional larger grains up to 0.60mm across, flecks of mica and elongate vesicles.

FABRIC 3 (FL80 BD, FL80 BM 16.9.80, FL80 BM 20.9.80 and FL80 BN).

Hard, rough fairly sandy fabric, containing large inclusions of sandstone, dark buff to light brown (7.5YR 6/4) outer surface, dark grey inner surface and core. A few vegetable impressions can be seen on the outer surfaces, but not nearly as many as are present in Fabric 1 and 2. Thin sectioning shows pieces of sandstone, mudstone, numerous grains of quartz and flecks of mica. Vegetable vesicles can be seen in FL80 BM 20.9.80, but it is difficult to confidently identify them in the other samples.

FABRIC 4 (FL80 CM)

Hard, rough slightly sandy fabric, some vegetable impressions can be seen on the surfaces, dark grey (2.5YR N4/ to 7.5YR N3/) surfaces, lighter core. Thin sectioning reveals fragments of (?) mudstone, a little sandstone and a scatter of quartz grains and flecks of mica.

Conclusions

There is nothing in the petrology of the eight sherds from Freswick Links that suggests anything else but a fairly local origin. The north-east region of Caithness, where Freswick

is situated, is covered by deposits of Old Red Sandstone, which would account for the sandstone inclusions in certain of the sherds. Most, if not all, of the sample sherds contain vegetable impressions on the outside surfaces, though a number of the sherds were rather small, making identification difficult in some cases. However, thin sectioning reveals that in only three of the sherds are there a quantity of vegetable inclusions present in the body of the clay, suggesting that chopped grass/chaff formed an appreciable temper constituent. Vegetable-tempered Late Norse pottery from Brough of Birsay and Beach View Studio Site, Birsay, Orkney, has also been examined in thin section, but apart from sharing a common feature of vegetable-tempering, does not closely resemble the fabric from Freswick. The sherds from the latter site tend to be coarser-textured than the majority of the sherds sampled from the two Birsay sites.

References

- Batey, C.E. and Morris, C.D. (1979) 'Excavations at Freswick Castle, Caithness, 1979', Durham University Summary Reports.
- Batey, C.E., Morris, C.D. and Rackham, D.J. (1979) 'Freswick Links, Caithness: survey work by Durham University, 1979', Durham University Summary Reports.
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