

Appendix 5: Assessment of the Fired Clay from Highgate, Cleethorpes, Lincolnshire (HGCL-07)

Alan Vince

A small collection of fired clay was recovered from the top fill of a large north-south linear ditch feature (context 002) excavated at Highgate, Cleethorpes, by Pre-Construct Archaeology Ltd (Site Code HGCL-07). The material is undatable and may be associated with salt production.

Description

Fired Clay

A group of four fragments of fired clay were recovered from context 002. Two of the fragments join and all have fresh breaks, suggesting that these are fragments from a larger object which broke during excavation.

The fabric contains few inclusions larger than c.0.1mm apart from numerous voids and organic fragments. Most noticeable are large circular cross-sectioned voids c.10mm in diameter but the majority of the voids are between 0.2mm and 0.3mm in diameter. The centre of the object is dark grey to black due to diffused carbon and in this area some of the voids contain carbonised rootlets and stem fragments. Other voids appear to have been empty by the time the clay was heated and these voids actually acted as channels for the gases during the firing process and are surrounded by an oxidized halo. Some of these voids are also lined with a darker red halo, indicating the flow of iron-rich groundwater through the voids. When the groundmass is viewed at x20 magnification abundant quartz, moderate muscovite and probable calcareous grains are visible.

The oxidized “original” surfaces of the lumps are irregular and show no sign of human working, such as smoothing, trimming or finger impressions.

Taken together, these features suggest that the fragments come from a lump of marine silty clay which has been subject to bioturbation. Most of the voids are probably plant stems and roots, which were growing within the clay but there are also fragments of organic matter which were probably deposited along with the sediment in a marine salt marsh environment.

No samples of the natural clay were submitted for comparison but, undoubtedly, similar clays could be found close to the site.

Assessment

Similar fragments of fired clay occur on salt-making sites along the Lindsey Marshes and on sites in the Lincolnshire Fens in medieval and later contexts. It seems that they may be a by-product of the production process used at that time in which fragments of clay were either deliberately or accidentally burnt. By the post-medieval period, the salt-making process started with the collection of salt-rich mud which was then washed through a filter to separate the salt from the mud. The concentrated brine was then heated to increase the solution to a point where the salt would start to precipitate. These burnt, unworked marine clay lumps do not occur on prehistoric

and early Roman saltern sites, where the fired clay consists mostly of fragments of ceramic container, the pedestals used to support these containers, clips which held them in place and the ovens in which these were heated. The difference in the character of the fired clay waste indicates that a different process was used in the medieval and post-medieval periods.

However, the discovery of a single fragment is insufficient evidence to indicate the prior existence of salt-production on this site.