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Assessment of materials from Lechlade (LMH17m)

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Abstract

The submitted materials comprised a small collection of ferruginous materials. These represented a poorly cemented (or badly degraded) ferricrete conglomerate, with iron oxide impregnated and cemented limestone gravel. The dull colour and the low proportion of material attracted to a magnet, suggested that any heating of this material was limited.

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Methods

All materials were examined visually, using a low-powered binocular microscope where required. As an assessment, the materials were not subjected to any high-magnification optical inspection, not to any form of instrumental analysis.

The identifications of materials in this report are therefore necessarily limited and must be regarded as provisional.

This assessment was conducted in April 2018 and was commissioned by Andy Hood of Foundations Archaeology.

Results

The assemblage comprised a single collection of debris from a ferricrete, from context (1174). Unlike the large blocks of similar material present on site LMH17s, this collection was formed of small aggregates (maximum size 20mm). The conglomerate comprised limestone gravel

The conglomeratic material, comprised small rounded pebbles, of a variety of limestone types (visually resembling typical local gravel), cemented by (1) a thin dense grain-coating cementing of cemented sequentially by (1) a thin dense grain-coating cement of dense Fe-Mn oxides, (2) brighter-coloured ochreous Fe-oxides and (3) a pale pore-filling cement, probably calcite. The iron oxides also impregnated many of the limestone clasts.

The colour of the debris was darker in colour than some from site LMH17s, and less was attracted to magnet.

Interpretation

The ferricrete is a natural material, representing iron cementation of limestone gravel. The colour and magnetic properties suggest that the material had possibly received little burning, if any.

Further work

The material is of natural origin, although it is possible (but not certain) that it has been burnt. No further analysis is required.

Table 1: summary catalogue of material submitted as possible archaeometallurgical residues. Weights in grams.

Context	Sample wt.	Item no..	Notes
1174	116	assemblage	Poorly formed or degraded ferricrete; clasts mainly limestone, often impregnated with iron oxides, set in cement comprising dark, dense Fe-Mn oxides, a brighter red-brown ochre and a final pore-filling cement of lime. Broken fine-grained debris poorly magnetic. Maximum block particle dimension 20mm.

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