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## 16 Burnt Fuel Remains

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Samples of burnt fuel residues were examined both by the naked eye and under low power binocular microscopy. There are two types of probable fuel residue from the site. One is a fused mixture of organic materials (from a range of contexts in Periods I, IV and V) and the other, less frequent, type is represented by fragments of probable burnt coal (from midden deposits in Period IV–V).

The burnt, fused, organic remains are formed of a mixture of charred plant remains, including stems, straw (some of which seems to contain insects), twigs, roots and wood. The remains are mostly highly friable and appear as dark-coloured lumps of variable size, ranging from 0.5 mm to 30 mm on the longest axis. The texture and appearance is variable, even within the same fragment, sometimes being comparable to compressed ash or otherwise appearing to be somewhat glassy and solidified. The latter

type is slightly vesicular and of vitreous appearance which may be explained by the fact that straw has a high silica content. There are no clear differences between contexts in the nature of the material.

Some remains are interpreted as representing burnt fuel of mixed composition. This could derive from such sources as byre waste, dung, peat and firewood. The fusion of the different materials suggests that more than one fuel type was being used to feed the same fires. An alternative explanation is that the material result from the conflagration of a building or buildings constructed with various organic materials. However, it has been suggested that the appearance of the glassy, vesicular component indicates burning under moderate and controlled temperatures (pers comm., A Clydesdale).

Coal was represented in a few Period IV contexts only.