

Analysis of Carved Stone, Great Castle Head

Assessment

The stone was described as originally being a grave marker but has been reused as a coffin lintel, having had a cross carved into the surface. The surface of the stone is dirty, with marks due to root and vegetation growth. It has been suggested that there may have originally been a pigment applied to the surface of the stone.

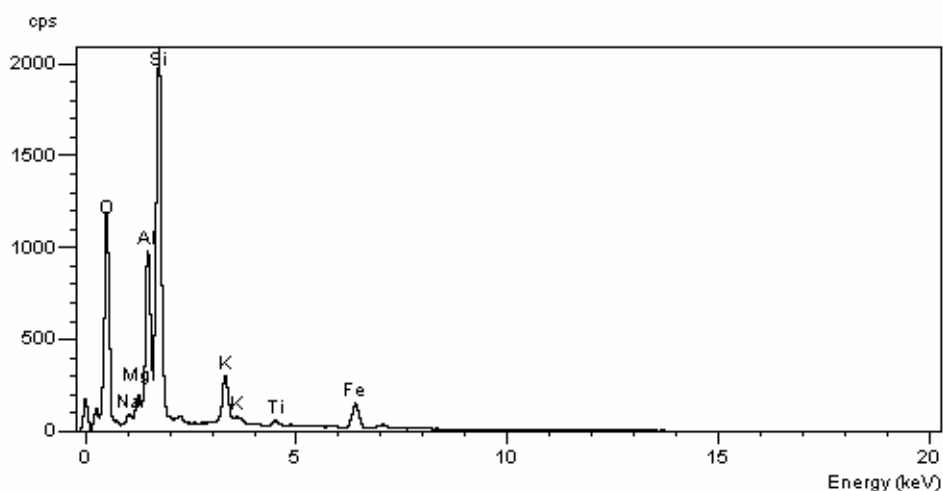
The stone was examined visually using a binocular microscope in order to assess whether there were any pigment remains. Although there did not appear to be any, two areas which were dissimilar in appearance to the general stone surface were sampled for analysis, as well as an area of the stone for comparison.

Analysis

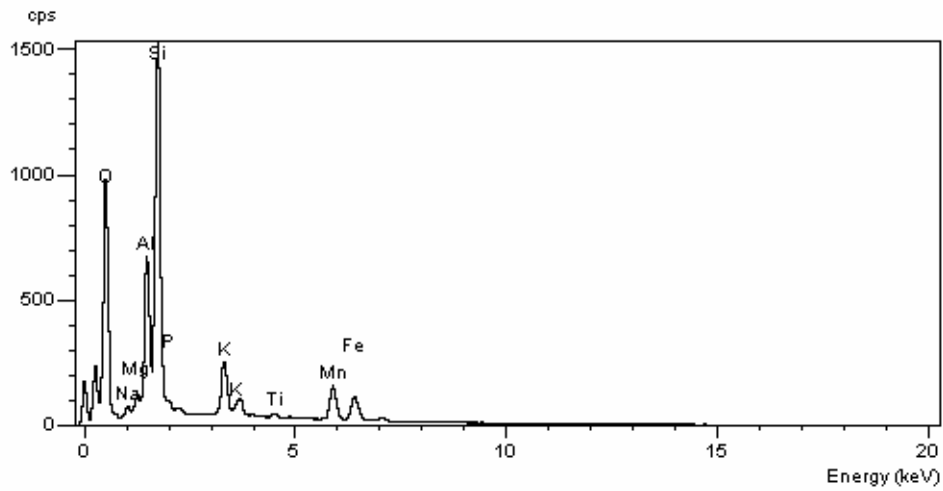
1 Pigments

Two areas that were noted as possibly being applied pigment were sampled by removing a tiny amount on the tip of a scalpel blade. These samples were analysed using a Camscan Maxim 2040 scanning electron microscope with Oxford Instruments Link-ISIS energy-dispersive analytical systems. A sample of the stone was taken in a similar manner and also analysed for comparison.

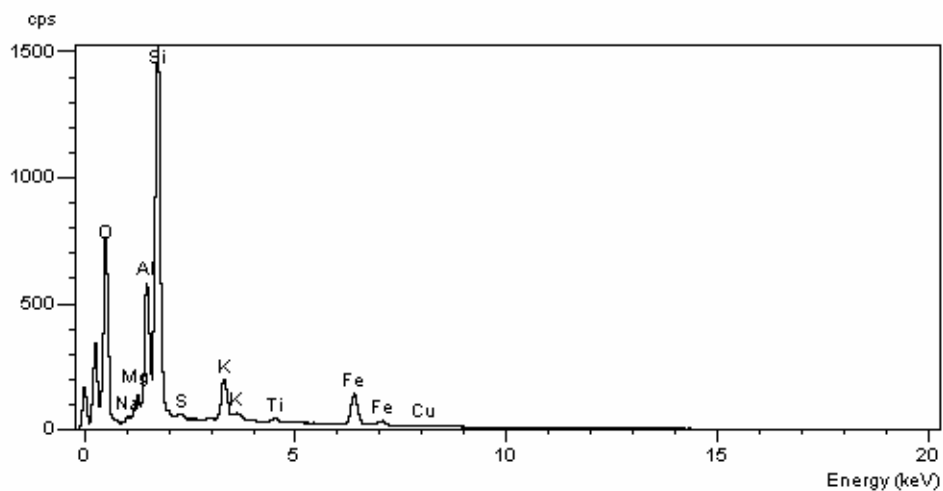
Sample A – Possible pigment



Sample B – Natural stone



Sample C – Possible pigment



The samples are all very similar, indicating that they are unlikely to be applied pigment, but are natural colours present due to the nature of the material. The stone shows silica, magnesium and oxygen, typical of clays, as well as iron which would account for the red colour of the samples taken.