

## **Assessment of Stone Finds from the Sproatley to Aldborough Pipeline (SPA-54)**

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A collection of stones was recovered from evaluation work carried out on the line of the Sproatley to Aldborough pipeline, East Yorkshire, by Network Archaeology Ltd. The stone all comes from a single context, 3022, and is probably the waste from a well-known, but little understood prehistoric activity, resulting in some places in mounds of burnt stone.

### **Description**

A total of 32 stones was recovered from context 3022. They have a variety of lithologies, including medium-grained white quartz sandstones, micaceous sandstones, and various igneous rock fragments, some porphyritic. Several of these fragments show signs of being cracked pebbles whilst some still have their original worn faces and a few, mainly the softer sedimentary rocks, show no signs of an original face.

All the stones show signs of oxidation, resulting in a red colouration to what are usually black or dark grey rock types. This oxidation can be seen on some rock fragments to have extended deep into the original rock and in some cases it can be seen that the process took place before the original pebble was cracked.

It is most likely that these rocks were formed as a result of heating by man and are debris from a well-known process which often gives rise to mounds of burnt stones, located close to a source of water (e.g. in the Birmingham area [http://www.birmingham.gov.uk/GenerateContent?CONTENT\\_ITEM\\_ID=14127&CONTENT\\_ITEM\\_TYPE=0&MENU\\_ID=1473](http://www.birmingham.gov.uk/GenerateContent?CONTENT_ITEM_ID=14127&CONTENT_ITEM_TYPE=0&MENU_ID=1473)). These mounds have been dated, usually by C14, to the Bronze Age. Two interpretations of these mounds have been put forward, and these can be applied also to the Sproatley to Aldborough finds. The first option is that the stone was used to boil water, which was then used to cook food. The second option is that the stones were used to create steam (and hot water) which could then have been used for bathing, as a type of sauna, or perhaps to induce a trance state, in the manner of the sweat lodges used by Native Americans.

### **Assessment**

Interpretation of the Sproatley to Aldborough stones depends very much on the archaeological context and the local topography. If there is a source of water nearby, such as

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a stream or spring, then this would favour the interpretation of these stones as being debris from a mound of burnt stones whereas if they occur with domestic debris then they may have been used in cooking.

The stones were recovered from the upper fill of a linear feature which, today, is above the water table. However, it is quite conceivable that modern drainage has lowered the water table and than this was, in the Bronze Age, a stream channel with a mound of burnt stones alongside it. At some later date, then, the stream might have fallen out of use and the mound could have been used to backfill it, either deliberately or by natural erosion of the stream banks.

If charcoal was recovered in association with the stones then a C14 date might be obtained to test for a Bronze Age date and if not then it is possible that thermoluminescent dating might be possible, although to get the best results from this method a sample of the soil matrix should be taken, to test the background radiation levels. TL dating would, however, produce a broad date even without the soil sample and this might be sufficient to indicate a prehistoric date (or not) for the heating.

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