

Roman stones from Heslington East

A survey and discussion

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Project no. 1250

7 April 2011

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Introduction

The present report was commissioned by York University and consists of a survey and discussion by N. Hodgson (TWM Archaeology) of 15 fragments of stone, including building material and architectural fragments, found by On Site Archaeology during excavations on behalf of the University in advance of an extension to the university campus at Heslington East.

The stones were found incorporated in or surrounding the upper part of a Roman well, dating to after the second/third century AD (information from Graham Bruce of On Site Archaeology). The well was excavated and the stones recovered in the winter of 2010-11. It was situated on the south side of Kimberlow Hill at SE 642509, some 4km east of the legionary fortress and *colonia* of York.

The well was evidently part of an extensive rural settlement of pre-Roman Iron Age and Roman date. The Roman settlement contained buildings of some status and elaboration: some 65m north of the well was a hypocausted structure (although other than the hypocaust the building was apparently of timber construction); at a similar distance north-west of the well lay a massive 5m square cobbled foundation.

The 15 retained stones (0001-0009; 0011-0016) were examined on site at Heslington East on 25 March 2011, with site access kindly arranged by Graham Bruce.

A further stone (0010), found, unstratified, in the same excavation area (HE09, context 308) but not at the well site, was examined at King's Manor, York, with access kindly arranged by Cath Neal.

Catalogue

0001. Voussoir in purplish brown coloured millstone grit. 460mm long, 400mm from front to back, width tapers from 200mm to 160mm. The soffit face (forming the visible underside of the arch) is point dressed. Fig. 1.0001 and photo at Fig. 3.1-3; 4.6.

0002. Voussoir in the same millstone grit. 400mm long, 400mm from front to back, width tapers from 200mm to 160mm. Fig. 1.0002 and photo at Fig. 4.1-2.

0003. Voussoir in the same millstone grit. 380mm long, 400mm from front to back, width tapers from 200mm to 130mm. Fig. 1.0003 and photo at Fig. 4.6.

0004. Plain rectangular block in buff finer-grained gritty sandstone. Considerably worn on one side after its original use. Original dimensions when complete 600mm long, 400mm wide, possibly 250mm deep. Fig. 2.0004 and photo at Fig. 5.7-8.

0005. Fragment broken from smoothly dressed block of finer grained buff sandstone; unknown length; 600mm wide, 180mm deep. The upper side is marked by a bar-clamp hole, 40mm wide and 30mm deep, widening and deepening to 50mm at the end of the clamp. There are two possible crowbar slots towards the edge of the stone. Fig. 2.0005 and photo at Fig. 5.9.

0006. Fragment broken from plain block of millstone grit, unknown length; 340mm wide, 180mm deep. Fig. 1.0006 and photo at Fig. 6.10.

0007. Fragment broken from corner of a fine grained sandstone block, 180mm deep. There is a crowbar slot towards the corner of what is presumably the upper plane, and a fragment of a chiselled out rectangular depression 20mm deep survives at the opposite corner along the same face. Fig. 2.0007 and photo at Fig. 6.11.

0008-0009. Undiagnostic fragments of a block or blocks of finer grained buff sandstone. Not illustrated.

0010. Socket stone for timber upright. Very roughly worked purplish brown millstone grit, 450mm by 400mm and 300mm deep. There is a roughly circular flattened or worked down area 240mm in diameter on the top. In the centre of this the socket, 70mm square and deep. Fig. 1.0010 and photo at Fig. 6.12.

0011-0016. Undiagnostic or unworked stone fragments to be discarded.

Discussion

Amongst the stones from the well there are clearly two groups that derive from earlier structures that must have been demolished before the well was built. One is the group of three gritstone voussoirs (0001-0003). These are of crude workmanship and not all of identical size, but of the same stone type and the constant front back dimension of 0.40m shows that they could all have come from one arch with this thickness (cf. Fig. 4.6). These voussoirs would have made up an arch with a span of about 1.75m. This need not have been part of particularly elaborate or exceptionally large structure: a round headed doorway with double leaves in an aisled structure barn or other agricultural building might make use of an arch of this order of size. Conceivably the voussoirs could have been used in a series of ribs or arches making up a vault.

The second group suggests a more elaborate and unusual structure; the dressed blocks 0004, 0005 and 0007 belong probably to an ancient construction technique (sometimes known as *opus quadratum*) where rectangular blocks are laid in horizontal courses without the use of mortar, being bound together with iron clamps set in lead or by other means. 0005 certainly demonstrates the use of clamps, while this stone and 0007 exhibit slots for the crowbars commonly used to achieve a tight connection between the stones. Recurrent dimensions (0004 and 0005 have a common 600mm measurement; 0005 and 0006 share a depth of 180mm) show that these three stones are likely to be related and from same structure. The technique is rare in Britain, usually being found only in bridges (and then only in the military zone) and in certain unusual kinds of classical temple and mausoleum construction (for example, the temple of Sulis Minerva at Bath, and the mausoleum at Shorden Brae at Corbridge. It also occurs in public monuments in Roman London. There seems no particular reason to assume that the fragments at Heslington have been carried from the fortress or *colonia*, though the proximity of York may in some way explain the use of this technique in such an unusually civil and rural context. Both the gritstone voussoirs and the blocks were presumably taken from nearby structures that had ceased to be maintained by the time the well was built or repaired. It is a remarkable coincidence that close to the findspot of the blocks there was a deeply layered cobble foundation some 5m square, with sides some 1.5m wide containing and interior space some 2m square. This resembles (at

smaller scale) the foundation of the tower-tomb mausoleum at Shorden Brae, and it is worth considering whether the blocks at Heslington might have come from a small tower tomb or other monument set upon the foundation and dismantled in the later-Roman period.

Recommendations

The block with a bar clamp (0005) and the socket stone (0010) should be illustrated in the published excavation report, as should a representative example of the voussoirs 0001-3.

List of illustrations:

1. Stones 0001-0003, 0006 and 0010 drawn at 1:100
2. Stones 0004, 0005 and 0007 drawn at 1:100
3. Photographs 1-3
4. Photographs 4-6
5. Photographs 7-9
6. Photographs 10-12

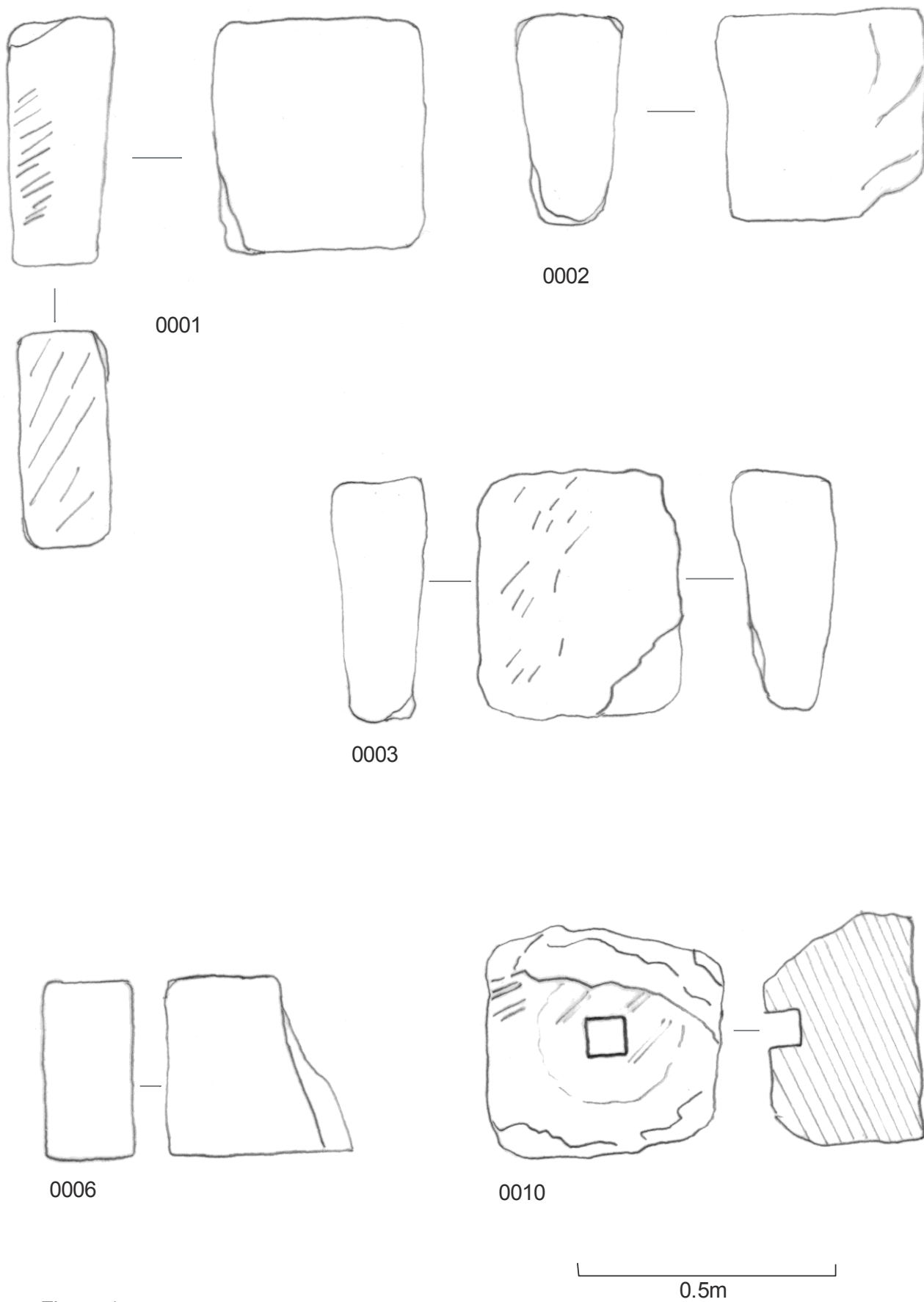


Figure 1

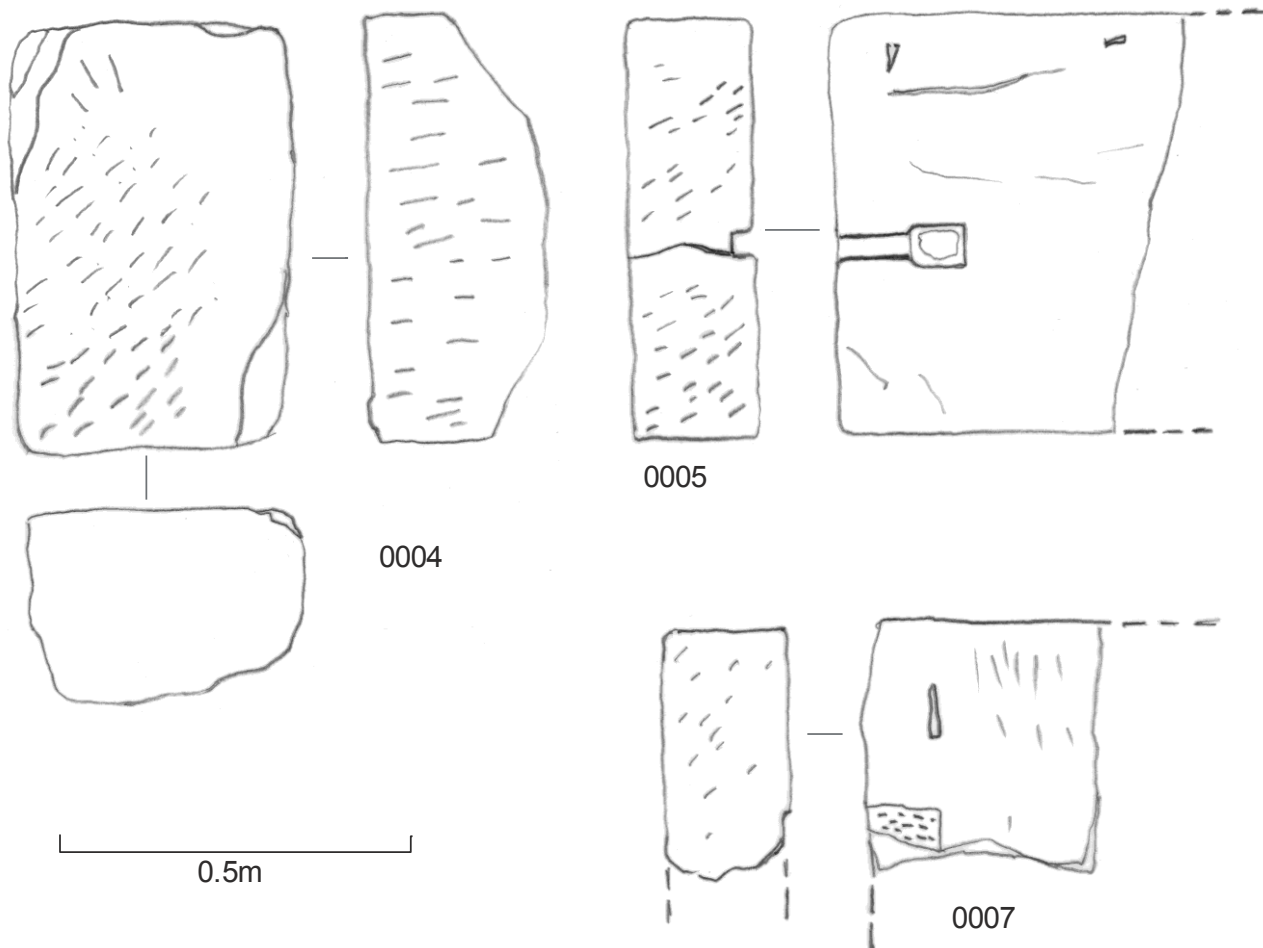


Figure 2



1. 0001 and 0003



2. 0001



3. 0001



4. 0002



5. 0002



Figure 4

6. 0003 and 0001



7. 0004



8. 0004



9. 0005

Figure 5



10. 0006



11. 0007



12. 0010