

**Land drain renovation at
Wroxeter Roman City,
Shropshire:
an archaeological watching brief,
2002**

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by
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1.0 Summary

A watching brief was carried out by the Field Archaeology Unit in May 2002 in respect of land drain renewal at Wroxeter Roman City, Shropshire under a commission from English Heritage, the current landowners. The work involved replacing the existing blocked drain with a plastic pipe and inspection of a chamber where the drain entered the field. The pipe trench was not fully emptied but no evidence of archaeology was encountered. However, in the drainage chamber, a possible wall foundation was located. The presence of a possible building was already suspected from the occurrence of Roman building material on the stream bank at the southern limit of the field. A resistivity survey carried out in June between the drainage chamber and the stream appeared to confirm the presence of a building here.

2.0 Introduction

This report describes the results of an archaeological watching brief undertaken during re-excavation of an existing land-drain trench, sited to the southeast of Wroxeter Roman City, Wroxeter, Shropshire (Fig. 1 & 2).

A section of the surviving earthen ramparts of Wroxeter Roman City (*Viroconium Cornoviorum*) is visible in open pasture-land to the east of Wroxeter village, where the fields gently-slope down to an unnamed brook. Groundwater from this area drains into the brook, but in order to enhance this natural action, land drains have been dug in the fields. One major land drain (centred on NGR SJ 56850820), aligned northeast - southwest and passing to the southeast of the ramparts, had become blocked with tree roots and silt causing water to back up within the field and in adjacent fields, necessitating remedial work.

Wroxeter Roman City is a Scheduled Ancient Monument (County Monument No. 32) and the conservation area extends beyond the outer ramparts of the city. This particular field drain lies beyond the Scheduled Area but nonetheless it was treated by English Heritage as though statutorily protected. English Heritage accordingly stipulated that an archaeological watching brief be undertaken during the re-excavation of the existing land-drain trench. This would allow a formal inspection of the spoil for residual finds and, should the sides of the original pipe trench be exposed by the groundworks, give an opportunity to ascertain if the earlier cut had encountered any archaeological features.

J. F. Unwin & Sons were contracted, by English Heritage, to re-excavate stretches of the land-drain trench by machine, to expose the ceramic pipework and either replace the latter with plastic piping or simply unblock it (with cleaning rods) where the problem was not too severe. English Heritage contracted Birmingham University Field Archaeology Unit (BUFAU) to undertake the watching brief over the two days that the work was scheduled (May 21st and 22nd 2002).

Further fieldwork was carried out June 2002 as a student project. This comprised small-scale geophysical work which was carried out in the southeast corner of the

field to investigate the possibility of the existence of a building indicated by surface remains.

3.0 Site Location

The village of Wroxeter, Shropshire (centred on NGR SJ 565088; Fig. 1), lies on the east bank of the River Severn, some 5 miles (8km) southeast of the centre of Shrewsbury. Part of the village and its surrounds are located within the site of Wroxeter Roman City, a Scheduled Ancient Monument (County Monument No. 32). A section of the city ramparts pass through fields to the east of the Wroxeter. To the southeast of this stretch of ramparts lies the land drain (centred on NGR SJ 56850820; Fig. 2) on which renovation works were being undertaken.

4.0 Methodology

The re-excavation of the field drain trench was carried out by a JCB excavator, fitted with a toothed ditching bucket of circa 0.3m width. Spoil from the groundworks was checked for residual artefacts and the sides of the excavation were inspected to ascertain if the original trench-cut was exposed.

Any *in situ* archaeology uncovered by the groundworks was hand-cleaned, then detailed on pre-printed *pro forma* record cards for features and contexts. The written records were supplemented by section drawings and plans (of appropriate scales), and photography. Where archaeological features were absent, stratigraphic sequences of the soil layers were recorded. Artefacts recovered during the excavation were placed in suitably labelled, self-seal bags and transported to BUFAU for cleaning, identification and cataloguing. The records and finds form part of the site archive, at present held at BUFAU. The site archive will be ultimately lodged with English Heritage at Atcham Store.

5.0 Results

Re-excavation of the pipe trench (FD1, Fig. 2) commenced at its outlet into the brook. Lying on the bank of the brook, adjacent to the outlet, were numerous fragments of building materials of the Roman period, including pieces of box-tile, mortar and building stone. These materials were not collected.

The mechanical excavator followed the line of the original trench away from the brook, roughly aligned northeast – southwest. After 16m, the drain abruptly turned through an angle of approximately 45 degrees and adopted a northeasterly heading. It continued on this alignment to two brick-lined manholes, located some 18m and 20m beyond the dog-leg in the drain (Fig. 2).

The spoil from the groundworks was checked for residual finds, but no artefacts were recovered. The sides of the new trench were inspected, to ascertain if the current excavation had exposed the cut of the earlier trench. However, the only deposits visible in section were those of the original trench's backfill, indicating that the latest excavation was somewhat narrower than the former. Without being able to view the sides of the earlier trench, there was no possibility of ascertaining if it had encountered any archaeological features during its excavation. The condition of the ceramic pipe within the trench was poor and evidence was found for repair in the past. The whole stretch of pipework was therefore taken-up and replaced with flexible (plastic) piping.

The land drain continued across the field in a northeasterly direction, but the majority of the remaining stretch did not need replacement. Further groundworks were thus limited to a short length of pipework within one metre of the eastern boundary fence of the field (FD2; Fig. 2). Excavation began against the wire fence, at the point where the land drain was expected to pass out of the field. However, the digger bucket encountered stones (1003) at a depth of 0.3m beneath the current ground level. Machining was discontinued and the stones were hand-cleaned. When the extent of the stonework had been ascertained, the machining resumed immediately to the south and the ceramic pipe was located (Fig. 3).

Cleaning the stones (1003) revealed them to be possible wall foundations, some 0.75m wide and set within a foundation trench (F100) that was cut into the natural sandy-clay subsoil (1001). The feature was aligned east – west and extended 1.15m into the field (Fig. 3). The stones were a mixture of soft red sandstone, hard blue-grey sandstone, large river pebbles and angular (crystalline) rocks. There was no evidence that the stones had been fixed in place with mortar. Overlying the stonework was deposit of reddish-brown, sandy silt (1002), which yielded fragments of *tegulae* and one undiagnostic sherd of oxidised Roman pottery (Jane Evans *pers. comm.*). Deposit 1002 was sealed beneath the topsoil (1000), a brown silt of c. 0.3m depth.

6.0 Geophysical and surface survey

Before the watching brief started, in March 2002, the English Heritage Inspector, Tony Fleming, informed one of the authors (Roger White) of the existence of a scatter of building debris seen in the southeast corner of this field adjacent to the brook around the mouth of an animal sett. This was verified by RHW who collected a number of finds from the surface indicative of a building nearby (*see* 7.0). These remains and location were photographed at the same time (Fig. 4).

In June 2002, it proved possible to carry out resistivity survey of this part of the field as part of a student exercise to see if a building did indeed exist here. This part of the field had been excluded from the large scale gradiometry survey carried out by the AM Lab in 1997-8 and reported on in Gaffney *et al.* (2000; fig. 4, pl. 3). A total of seven 20m grids was surveyed: four along the hedge line aligned roughly north – south and a block of four extending into the field (Fig. 2). The results are reproduced here in a number of formats (Fig. 5). In the top right-hand image, the diagonal position of the pipe is clearly shown extending across the grids while the lower illustrations show quite clearly the corner of a building aligned north-west – south-east, with a possible extension on the north side. This building is clearly located immediately adjacent to the stream bank and thus the most likely interpretation of it is that it is a bath building, similar in location to that at Chesters Fort, for example. This is borne out by the surface finds which include two substantial fragments of box tiles (*tubuli*) and plaster that apparently adhered once to box tiles. A fuller survey in both resistivity and gradiometry would be required to verify this building.

7.0 Finds

By Roger White

A small collection of artefacts was unsystematically collected from the banks of the stream adjacent to the entrance to an animal sett. The material was in fresh, unabraded condition. The collection will be deposited with English Heritage at the Atcham Store. For each item, measurements are given in millimetres at maximum extent.

Catalogue

1. Fragment of tile. L: 197; W: 78; D: 22.
The fragment has one finished edge, a sanded back and a combed front. All other edges are freshly broken. A recently detached piece of the tile is treated as though part of the whole. The tile is in good condition and has two areas of combing: an incomplete series of grooves running at right angles to the finished end of the tile, and an oblique series of seven grooves meeting the first set at an angle. This latter series is overlain by remnants of an area of *opus signinum*.
The combing shows that this was a conventional box-tile from a heating system.
2. Fragment of tile. L: 155; W: 75; D: 32 (flange), 21 (tile)
Flanged fragment of tile. The profile of the flange is complete and very squarely shaped. Internally it is 10mm, and it is 18mm at base. The base has draw marks on it perhaps indicative of a process of trimming. Internally, the tile is sanded, including the inner face of the flange. This suggests that the tile was shaped over a sanded former and then trimmed in situ. A faint line within the sanded surface indicates that the former was of wood. The surface is decorated with criss-crossing groups of five parallel lines made with the same comb.
This is an unusual tile: it is certainly from a heating system but is probably a half-box tile rather than a full *tubulus*. It might thus date to the late first or early second century.
3. Fragment of roof slate. L: 160; W: 180; D: 18.
A fragment of micaceous sandstone flagstone of a type well known in Wroxeter (Cantrill 1931, 95-6). The function of the item is demonstrated by its complete nail hole placed in the corner of the tile. It would originally have been rhomboid in shape.
4. Fragment of plaster. L: 71; W: 49; D: 22. Painted surface: 53 x 50.
A triangular piece of plaster, mostly of medium-coarse fabric including abundant crushed tile but with a thin 1mm skim of fine lime plaster that has been painted a deep red (although the surface has not been properly smoothed). A shallow ridge of plaster on the back, projecting 3mm from the flat surface and spreading to a maximum of 10mm, may be signs of its attachment onto a tile backing. This was a common method of waterproofing plaster within a bath house (Adam 1994, 219-20, fig. 515 & 516).
5. Fragment of plaster. L: 140; W: 110; D: 38. Painted surface: 135 x 90.
A coarse rhomboid fragment of painted plaster. The fabric is a medium-coarse *opus signinum* with abundant crushed tile. The painted surface rests on a lime skim 1mm thick and is in poor condition with only patches surviving. These appear to show two colours: white / cream and green but no pattern may be discerned.
6. Antler tine. L: 78; Diam: 18.
A tapering and slightly curving tine of antler. The end is broken off, possibly deliberately since there is a distinct groove cut across it. The other, broader, end, bears signs of saw marks in a number of directions. The suggestion of use is given some credence by wear on one side only, the other (inner) face being unworn. However, it could be that this represents wear by the animal during life rather than use by a human so that the tine was not used but was merely cut off as waste when using the rest of the antler.

8.0 Discussion

Previous archaeological activity within this field at Wroxeter has been limited to an excavation on the defences (Webster 1962) and another on a town house lying within the ramparts in the northeast corner of the field (Houghton and Ellis, forthcoming). Since the latter is clearly a town house, it does not aid us in the discussion here, while Webster's excavation was solely concerned with elucidating the defensive sequence.

The field drain itself does not seem to have encountered any significant archaeology. The area of unmortared rubble seen in the head of the drain, adjacent to the hedge, was thought by the excavator to be a foundation but there is no confirmation of this in the geophysics and perhaps a more likely interpretation is that it was a rough paved area associated with this wet area. Further south, however, close observation of the eroding stream bank unexpectedly found evidence for a possible bath house, lying adjacent to the small stream which presumably supplied it with water. The suspicion was apparently confirmed by geophysics although this needs testing. If confirmed, it belongs to a small number of buildings known in the immediate vicinity of Wroxeter that are discussed in the hinterland report (Gaffney, White & Buteux, forthcoming) but none of these are bath houses. Parallels lie rather with Roman military sites, such as at Chesters, although clearly this establishment is far too small to have catered for the legion based at Wroxeter and it is perhaps more likely to be associated with the *vicus* that is assumed to lie to the west, near the present location of the church. It would certainly appear to belong to a period before the defences were constructed since these would have considerably hampered access to the building.

While final proof of a building is lacking, therefore, it might perhaps be sensible to extend the scheduled area to include this area outside of the rampart

9.0 Acknowledgements

The fieldwork was carried out by Dr. R. White, Kate Bain and Roy Krakowicz. This report was written by Roy Krakowicz and Roger White, who was also Project Manager. The figures were produced by Nigel Dodds. Thanks are due to the on-site staff of J. E. Unwin & Sons for their assistance during the watching brief.

10.0 References

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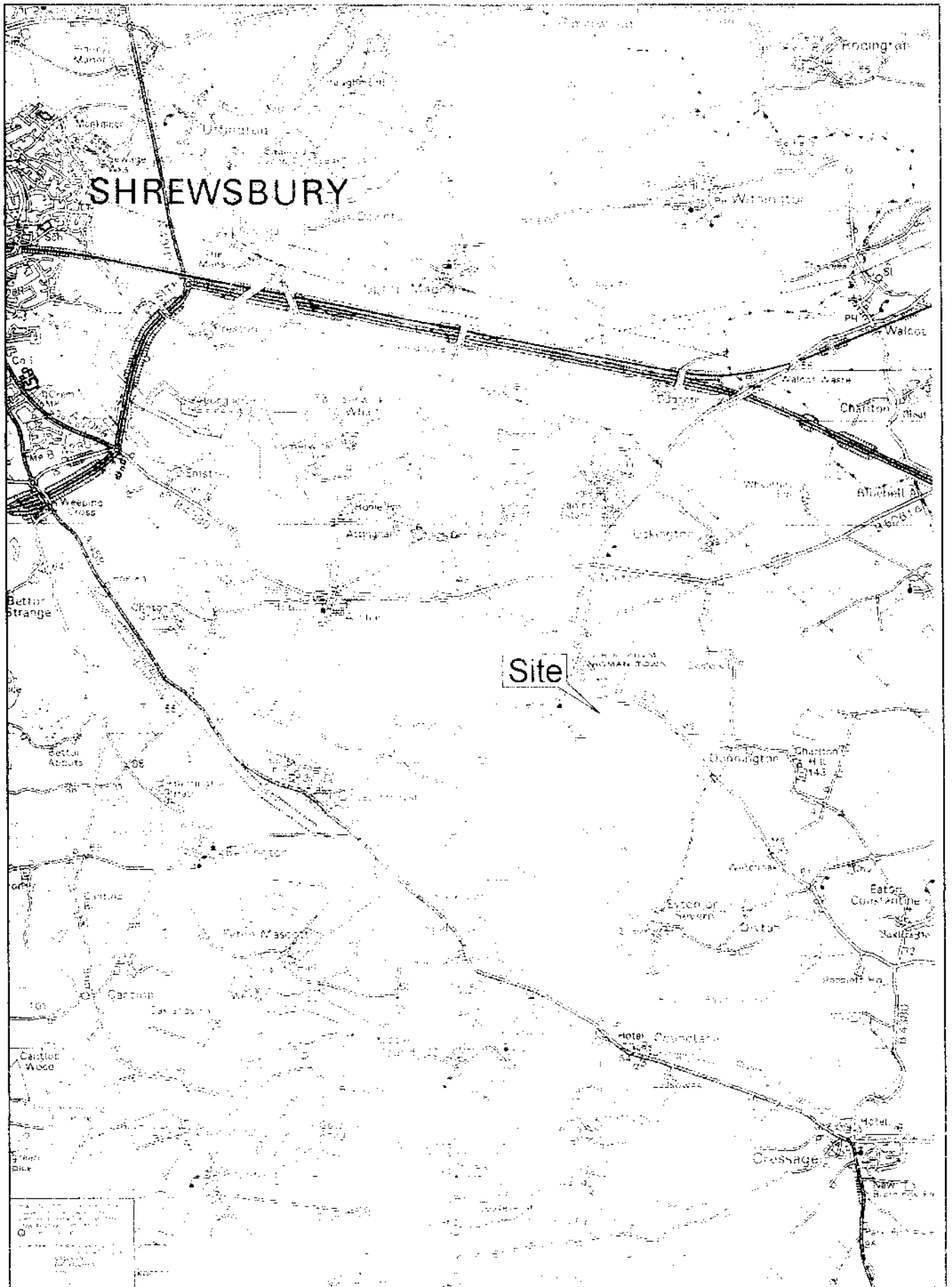


Fig 1

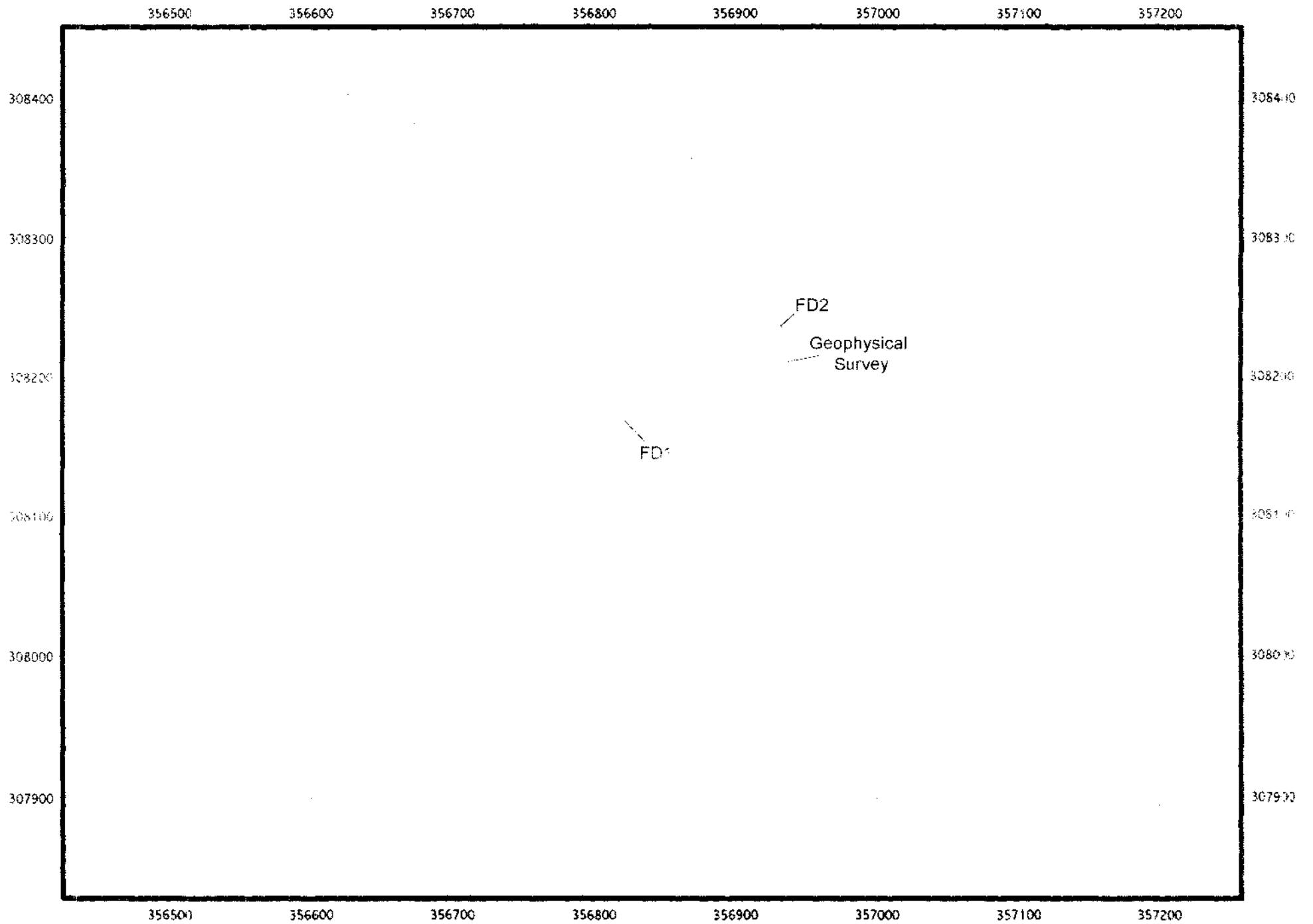


Fig.2

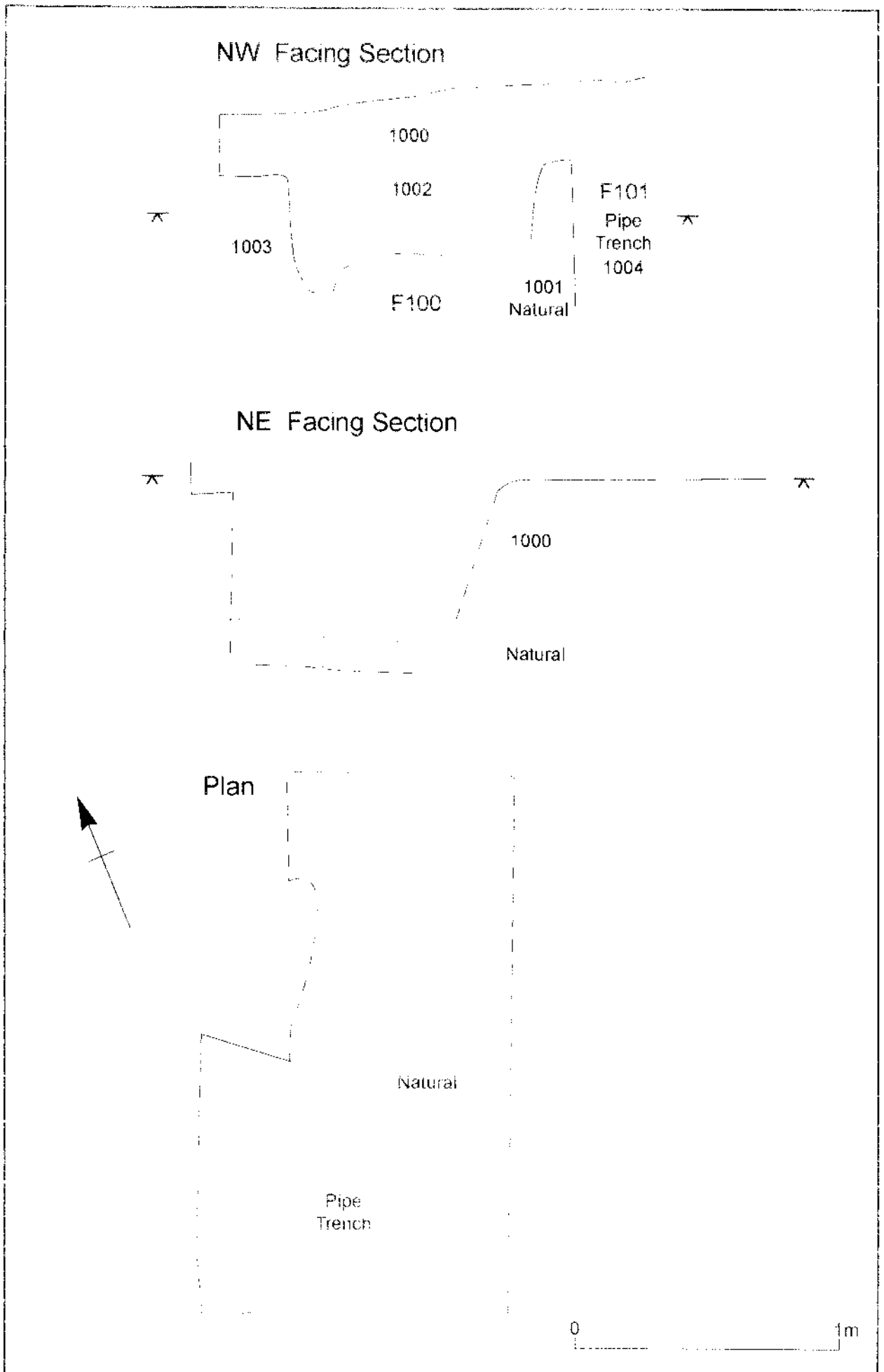


Fig 3

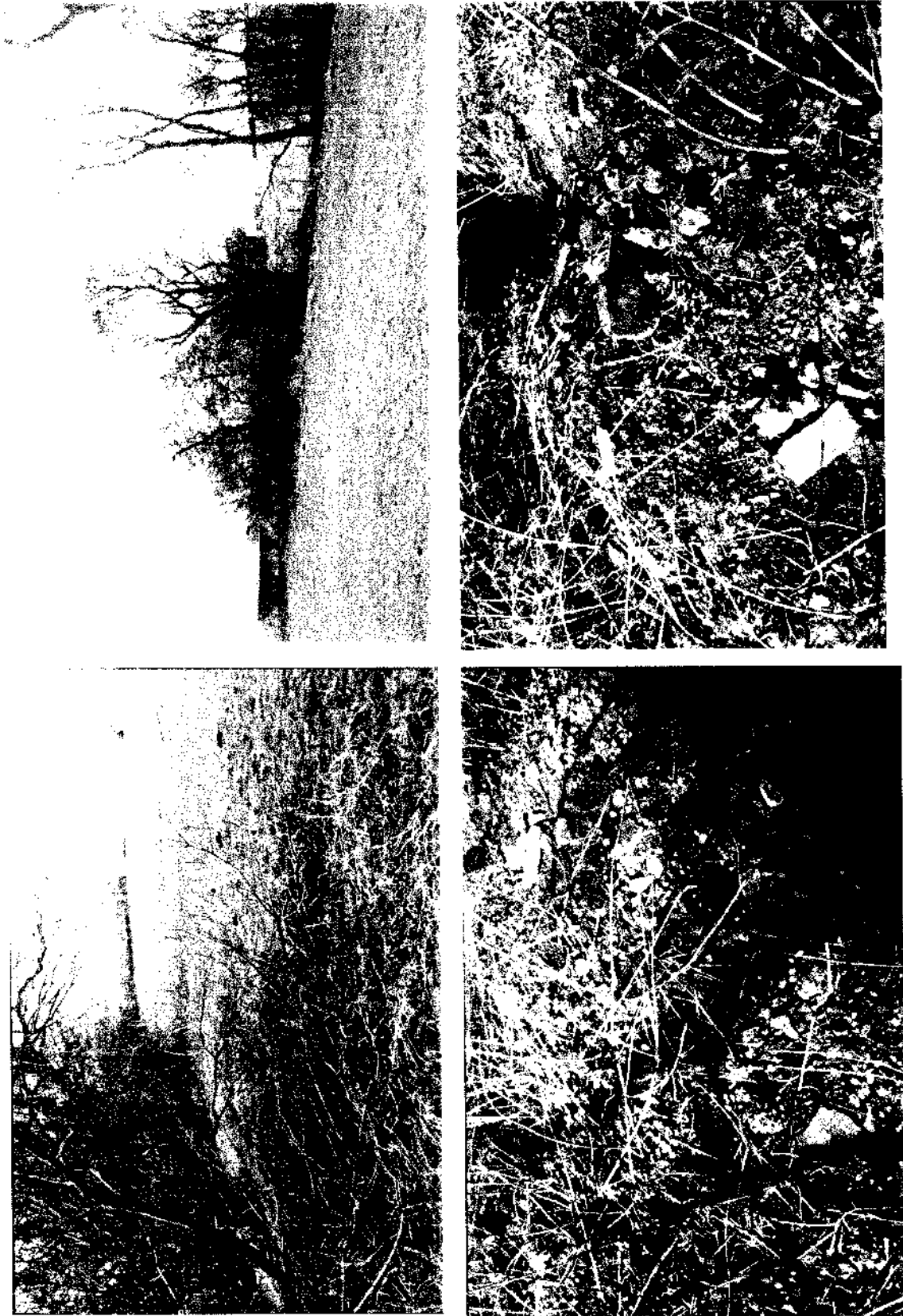
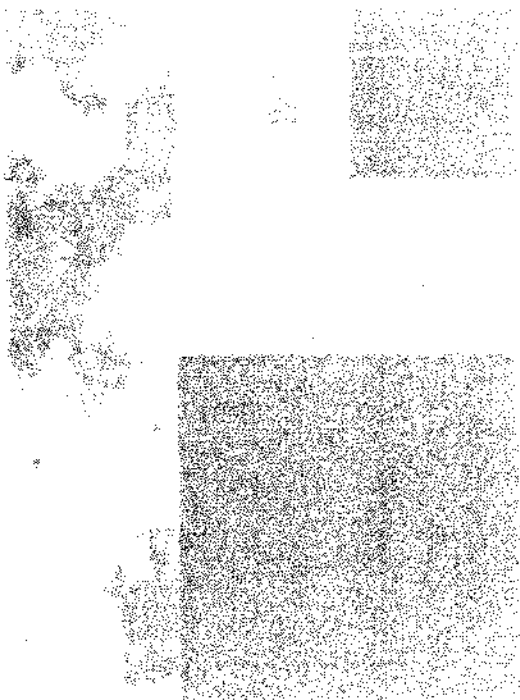


Fig. 4: Top left: view of possible bath house site, looking west (Wroxeter hotel in background); Top right: SE view of possible bath house site; Bottom left: Building debris on stream bank (within trees seen in southeast view); Bottom right: building debris on stream bank – note animal sett.



Fence Line

Depression



North
↓

Fig. 5: Resistivity survey to south-east of defences Wroxeter Roman City showing possible building.