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# birmingham archaeology

UNIVERSITY OF BIRMINGHAM

## Tutbury Castle, Staffordshire

## Archaeological Work 2007

Checked by

Supervisor.....

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# Tutbury Castle, Staffordshire

## Archaeological Work 2007

By

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# TUTBURY CASTLE, TUTBURY, STAFFORDSHIRE: EXCAVATION 2007

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**SUMMARY**

*This report describes the results of a training excavation carried out by students from Birmingham University at Tutbury Castle in June 2007 – the fourth season of excavation at the castle under the auspices of the present research project. Two trenches were opened in the outer bailey. Although these were specifically placed in order to find structural features indicated by a geophysical survey conducted the previous year, there was a marked contrast in type of evidence from the two trenches.*

*Trench 9, which was sited near the northern edge of the outer bailey area, revealed a considerable build-up of loamy 'garden soil' deposits of medieval date, with the sloping surface of the natural clay reached directly below these at a depth of 1.5m.*

*Trench 8 was sited near the middle of the outer bailey. Hard compacted surfaces of post medieval date were encountered at the relatively high level of 0.3m from the ground surface. After removal of these and similar medieval layers, a large feature was found at a depth of 0.6m. The feature was nearly 3m wide and well over 3m in length (its full length was not established as it extended beyond the edges of the trench). Partly vitrified sides and a thick layer of charcoal in its base indicate that the feature probably served as some kind of oven or kiln. In plan the feature seems to have the appearance of a complex multi-flued oven, but further excavation would be required to establish its function with certainty. Pottery from the fill of the feature dates it to the late Roman period.*

*The marked difference between the evidence encountered in the two trenches suggests that part of the plateau of the outer bailey predates the medieval castle and was occupied in Roman times. During the 11$^{th}$/12$^{th}$ century, perhaps as a result of the creation of the castle, the outer bailey area was extended, perhaps as part of a general re-shaping of the middle and outer baileys and the deep cleft or hollow way between them.*

# TUTBURY CASTLE, TUTBURY, STAFFORDSHIRE: EXCAVATION 2007

## 1 INTRODUCTION

### 1.1 Background

A fourth season of archaeological work was carried out at Tutbury Castle, Staffordshire over the three-week period 4-22 June. The archaeological programme was centred around a training excavation for first and second year undergraduates from the Institute of Archaeology and Antiquity, University of Birmingham. The archaeological project was instigated in 2004 by Mrs Lesley Smith, the lessee of Tutbury Castle, as part of a wider research programme on the castle and town being co-ordinated by Dr Gareth Williams of the British Museum. The professional direction and supervision of the archaeological fieldwork was undertaken by Birmingham Archaeology with input from the British Museum.

### 1.2 Location

Tutbury Castle is situated on the northern edge of the town of Tutbury, East Staffordshire at NGR SK20952915. It lies on the south side of the River Dove, which forms the county boundary with Derbyshire (Fig. 1).

## 2 AIMS AND OBJECTIVES

The aims of the excavation were:

- to provide students with experience of digging and recording archaeological features
- to characterise the archaeology of the outer bailey area
- to investigate linear and circular anomalies identified by geophysical survey
- to consider the potential of excavated evidence from the outer bailey in contributing towards an understanding of the historic development of Tutbury Castle as a whole.

## 3 METHODOLOGY

Two trenches were opened up by hand digging within the lower outer bailey area. (Fig.1). Trench 8 initially measured 5m x 5m, with a 3m x 1m extension added later. Trench 9 measured 7m x 3m. Thus a total of 49m$^2$ was excavated in total.

The areas were initially de-turfed by hand with the turf being laid out nearby. Modern overburden was also removed by hand down onto archaeological deposits. When excavation exceeded the health and safety limit of 1.2m in Trench 9, digging proceeded by means of a 1m wide segment aligned along the main axis of the trench. Archaeological horizons were cleaned by trowel, and features investigated by hand-excavation. Trenches were subsequently backfilled by mechanical excavator and the turf re-laid. A large feature in Trench 8 could only be partially excavated due to time and logistical constraints. This was covered in protective material prior to backfilling, to facilitate further excavation at a later date.

All stratigraphic sequences were recorded, even where no archaeology was present. Features were planned at a scale of 1:20 or 1:50, and sections were drawn through all cut features and significant vertical stratigraphy at a scale of 1:10. A comprehensive written record was maintained using a continuous numbered context system on *pro-forma* context and feature cards. Written records and scale plans were supplemented by photographs using monochrome and colour print film and high resolution colour digital photography.

Twenty litre soil samples were taken from datable archaeological features for the recovery of charred plant remains. The environmental sampling policy followed the guidelines contained in the *On-Site Guide to Environmental Sampling and Processing* (Birmingham Archaeology Procedure No. 2). Recovered finds were cleaned, marked and remedial conservation work was undertaken as necessary. Treatment of all finds conformed to guidance contained within *'A strategy for the care and investigation of finds'* published by English Heritage (1995).

The full site archive includes all artefactual and/or ecofactual remains recovered from the site. The site archive will be prepared according to guidelines set down in Appendix 3 of *Management of Archaeology Projects* (English Heritage, 1991), the *Guidelines for the Preparation of Excavation Archives for Long-term Storage* (UKIC, 1990) and *Standards in the Museum Care of Archaeological Collections* (Museum and Art Galleries Commission, 1992). Finds and the paper archive will be deposited with an appropriate repository subject to permission from the landowner.

## 4 EXCAVATION RESULTS

### 4.1 Trench 8 (Figs 2 and 3)

***Overview***: Trench 8 was sited near the centre of the outer bailey area with the specific aim of uncovering and investigating part of the circular anomaly identified by geophysical survey in 2006 (Hewitson and Kincey 2006). No trace of this circular feature was found. Instead, after removal of turf and modern topsoils, a series of compact layers of gravel or clay were encountered. The lowest of these had several features cut into it, including a large oven-like feature containing Roman pottery. There was a slight sloping of layers from west to east. Contexts are described below starting from the earliest and working upwards to the latest in the stratigraphic sequence.

***Detailed description***: At 0.75m below ground level, the earliest archaeological horizon reached during the excavation consisted of the compact mid reddish brown sandy clay layer **808.** Inclusions of charcoal flecks within the layer indicated that it was not natural in origin, but its upper surface was cut by several archaeological features.

The largest feature cut into layer 808 was the oven or kiln-like feature **[813]** (Fig. 2, Plates 1-3). The extent of this feature was not fully uncovered - therefore its dimensions and shape can only be partially described. As revealed within Trench 8, its length was 3.4m with the feature clearly extending beyond the eastern edge of the trench. Its full width was 2.8m. The shape was irregular, with distinct component parts. The western part consisted of a rounded end about 0.9m wide and 0.4m deep. It had steeply undercutting sides of vitrified clay, giving this part of the feature a bell-shaped profile. To the north the side of the feature had a very well-defined rectangular cut, measuring about 1.2m x 0.6m in plan and 0.3m in depth, with vertical sides and right-angled corners. A shallow linear scoop or shoot 1m long and 0.3m wide extended northwards from here, giving this part of the feature a definite sense of symmetry. The main part of the feature was at least 0.8m deep. The lower fill **826** was a black and red layer of charcoal and burnt clay – indicating an episode of burning or firing. This was overlaid by reddish brown clay silt **810**, which filled most of the southwest end. A single sherd of Roman pottery was found in this fill. A band of dark greyish brown clay **827** formed a distinct bowl-shaped soil horizon, perhaps indicating the start of a separate phase of backfilling of the feature. Upper layers consisted of dark brown sandy clay **824** and light brown silty clay **814**. Both contained moderate amounts of charcoal, and the latter contained several sherds of Roman pottery. The few medieval and post-medieval sherds from this fill were found near the top and are likely to be intrusive. Overall the feature had the appearance of a large multi-flued

oven or kiln, but its interpretation must remain open until excavation is complete – perhaps in a subsequent season of work.

Three other features were cut into layer 808, and although no datable finds were recovered from them, it seems likely that these are of similar date to feature 813 and possibly associated with its use.

Pit **[811]** was a small sub-circular feature measuring 0.7 x 0.45m in plan. It was 0.15m deep. The fill was a dark reddish brown sandy clay with frequent inclusions of small stones.

Pit **[820]** was situated on the south side of the trench. Only about half the feature was visible. As revealed within Trench 8 it measured 0.66 wide and 0.4m long. It was 0.18m deep. The only fill was a dark brown silty clay.

Pit **[822]** was situated in the south east corner of the trench (Plates 4-5). It measured 1m x 0.75m and was 0.35m in depth. Because it extended beyond the edges of the trench in two directions, it could only be partially excavated. Its fill was a dark brown silty clay, which contained one very large stone 0.3 x 0.3 x 0.25m in size. The stone must have been placed or flung into the pit prior to backfilling. After excavation and recording the stone was removed and inspected but it showed no sign of having been worked.

Also cut into layer 808 was a small gully-like feature **[816]** / **[818]**, filled by **817** / **819**. This was shown by excavation to be natural in origin.

All the features described above were sealed by a dark reddish brown sandy clay layer **805** containing 2 sherds of medieval grittyware (?mid-13$^{th}$-15$^{th}$ century). This in turn was sealed by the compact gravely layer **803** to the west of the trench and the orange brown sandy clay **804** to the east. Above 803 was the compact mid reddish brown sandy clay **815** from which a single sherd of 11$^{th}$/12$^{th}$-century pottery was recovered. Above both 815 and 804 was the dark brown silty clay layer **802**, which contained numerous post medieval finds including 19$^{th}$-century pottery.

Cut into layer 802 was a shallow sub-oval pit **[806]**. The feature was 0.9m in length as excavated but the feature continued beyond the northern edge of the trench. It was 0.8m wide and 0.18m deep. The fill of dark born sandy clay **807** contained numerous fragments of burnt animal bone.

Sealing pit 806 was layer **801** - a topsoil containing 19$^{th}$- and 20$^{th}$-century finds. This lay directly under the modern turf **800**.

See Figure 3 for the long north-facing section of Trench 8.

### 4.2 Trench 9 (Figs 4 and 5)

***Overview***: Trench 9 was sited near the northern edge of the lower outer bailey area in order to investigate a linear anomaly identified by geophysical survey; a cobbled path was found on roughly the same alignment. Excavation revealed a series of loose dark loamy layers, the lower ones of which contained medieval pottery. A sloping natural surface was encountered at a depth of about 1.5m. Several small features were cut into this surface. Contexts from Trench 9 are described in detail below, starting from the earliest and working upwards to the latest in the stratigraphic sequence.

***Detailed description***: A natural reddish brown clay **911** was encountered at a depth of 1.5m. Three features were cut into the natural:

Posthole **[913]** was a very small oval feature. It was 0.22m long and 0.17m wide. The fill **914** was a dark greyish brown silty clay.

Posthole **[915]** was a larger sub-oval shape. It was 0.45m long and 0.25m wide. The fill **916** was a dark greyish brown silty clay, similar to 914.

Posthole **[917]** had a rectangular form in plan. It was 0.3m long, 0.18m wide and 0.08m deep. The fill **918** was a dark greyish brown silty clay, similar to 914 and 916.

Given their proximity to each other and the similarity of their fills, all the postholes described above may be part of the same structure. If a larger area could be opened up to the same depth, it is likely that more such features cut into the natural clay would be revealed and a connecting pattern might emerge.

The postholes (Plate 6) were sealed by dark brown silty clay loam **905**, which was up to 0.5m thick, and which was dated by pottery to the 11th/12th century. It also contained a small stone hone.

Set within 905 was the linear cobbled surface **912**, thought to be a path. It consisted of a layer of small-medium rounded cobbles, 0.7 m wide, in a silty clay matrix (Plate 7). The cobbled surface was aligned approximately north-south and may well be the linear feature picked up by geophysical survey.

Layer 905 was cut by large linear ditch-like feature **[906]** / **[908]**, aligned roughly northwest to southeast. It was excavated in two segments and was found to have a shallow U-shaped profile up to 2.5m wide and 0.7m deep (Fig. 5). The fill **907**/**909** was a mid-reddish brown clay. It was unusual to dig in that the fill was much lighter than the dark material into which the feature was cut – an inversion of the usual situation. It is possible that, rather than being a ditch, the feature might represent a consolidation of ground that provided a compact base for a timber wall. The feature was overlaid by a mid-brown silty clay layer **904**, up to 0.25m deep, which, apart from a single sherd of Roman pottery, contained only medieval ceramics, the latest dating from the 14th century.

Layers 904 and 905 were overlaid by the dark reddish brown silty clay **903**, which was up to 0.4m deep and contained post-medieval finds including 19th-century pottery. This was overlaid in turn by the dark brown silty clay layer **902,** up to 20cm deep. Above 902 was the modern dark brown clay silt topsoil **901**, which was overlaid by the modern turf **900**.

Fig. 6 shows the long south-facing section of Trench 8.

## 5 ENVIRONMENTAL SAMPLING RESULTS *by Emma Tetlow*

A single sample was assessed for environmental potential. The sample was recovered from Trench 8 and was associated with a Romano-British oven or kiln-like feature [813], outside the castle moat and located in the lower outer bailey overlooking the town of Tutbury.

The samples were washed through a 300µm mesh sieve, allowed to dry and examined under a low power binocular microscope at x10 magnification.

The sample assessed was relatively small <100ml and consisted predominantly of fine fragments of charcoal, small larger remains, identifiable as charred wood were also recovered. No identifiable, charred or waterlogged plant remains or insects were observed in the sample.

The sample yielded no interpretable evidence; hence further processing of this sample for proxy evidence is not recommended. No material commonly found in this type of deposit such, as charred plant remains were readily visible. Taphonomic and post-depositional processes at the site clearly preclude the preservation of identifiable or interpretable, site-specific proxy evidence.

## 6 POTTERY SUMMARY *by Stephanie Rátkai*

| code | ctxt | Roman | post-Conquest medieval | cistercian ware | blackware | German stoneware | yellow ware | brown salt-glazed stoneware | slipware | slip-coated ware | coarseware | mottled ware | refined body ware | modern glazed ware (post c. 1750) | flowerpot | Total | Earliest pot | Latest pot |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TTD07 | 801 | | 14 | 1 | 4 | | | 10 | 1 | 5 | 25 | 2 | 1 | 200 | | 263 | 11th-12th c | 19th c |
| TTD07 | 802 | | 1 | | | | | | | | 2 | 1 | | 14 | | 18 | 12th c | 19th c |
| TTD07 | 805 | | 2 | | | | | | | | | | | | | 2 | ?mid 13th-15th c | ?mid 13th-15th c |
| TTD07 | 810 | 1 | | | | | | | | | | | | | | 1 | Roman | Roman |
| TTD07 | 814 | 6 | 3 | | | | | | | | | | | | | 10 | Roman | Post-med |
| TTD07 | 815 | | 1 | | | | | | | | | | | | | 1 | 11th-12th c | 11th-12th c |
| TTD07 | 901 | | 8 | | 1 | | | 2 | | 3 | 14 | 3 | | 91 | 1 | 123 | late 11th-12th c | 19th c |
| TTD07 | 902 | | | | | 1 | 1 | 1? | | | | | | 1 | | 4 | 16th c | 19th c |
| TTD07 | 902 | | 10 | | | | | | | | | | | | | 10 | 11th-12th c | 14th?15th c |
| TTD07 | 903 | | 83 | | | 1 | | | | | 7 | 1 | | 18 | 1 | 111 | 11th-12th c | 19th c |
| TTD07 | 904 | 1 | 13 | | | | | | | | | | | | | 14 | Roman | 14th c |
| TTD07 | 905 | | 56 | | | | | 1 | | | | | | | | 57 | 11th-12th c | 18th c* |
| TTD07 | 910 | | 2 | | | | | | | | | | | | | 2 | 11th-12th c | 11th-12th c |
| TTD07 | 912 | | 13 | | | | | | | 1 | 5 | | 1 | 27 | | 47 | late 11th-12th c | 19th c |
| Total | | 8 | 206 | 1 | 5 | 2 | 1 | 14 | 1 | 9 | 53 | 7 | 2 | 351 | 2 | 663 | | |

**Table 1: Pottery types present and suggested dating**

(excavator's note: there were no finds from 912 and it is assumed that finds assigned to this context were wrongly bagged or labelled. The most likely explanation is that they derive from the cleaning of the section above 912, and therefore derive from several contexts. ME).

1. Roman Pottery

A small number of Roman sherds were found. Some were residual finds from later layers but the majority were from the fills (810 and 814) of the large oven or kiln-like feature [813[.. Most of the sherds were of a Severn Valley ware type but there was a single sherd of samian ware. A reduced wheel-thrown small diameter jar from (814) with a reeded rim may be Roman.

2. Medieval pottery

i. Many of the contexts have the Stamford ware and reduced cooking pot which was typical of the pottery from the rampart layers. This forms just under 50% of the post-Conquest pottery.

ii. The later pottery is characterised by gritty wares of variable colour depending on the iron-content of the clay. These probably start to be made in the mid- 13th century or thereabouts but firm evidence is lacking. Vessel forms and firing indicate that gritty wares were made into the 15th and 16th centuries.

iii. It is assumed that the whitewares belong to the period c. 1250-c. 1400 but this is also far from well established.

iv. No Tudor Green and only a small amount of Midlands Purple and cistercian ware were found. One would expect to find Tudor Green and cistercian ware on a castle site, so their absence is probably significant and probably indicates a genuine lacuna in the pottery sequence.

Post-medieval pottery

Following on from iv above, there is not much that belongs in the 16th or 17th centuries either and that there is a good chance that just about all the post-medieval pottery dates from after c. 1725/1750. It is difficult to say whether this means that pottery began to accumulate again in the second or third quarter of the 18th century and through the 19th century or whether some 18th century material has become incorporated into 19th century pottery which was dumped as a secondary or tertiary deposition. As can be seen from Table 1, in the main, the pottery is either medieval or post-1750.

## 7 OTHER ARTEFACTS *by Erica Macey Bracken*

Other finds from the site included iron, copper alloy and lead items, glass, clay pipe, slag, shell, worked bone, coins and a worked stone find. The material was quantified by count and weight and examined macroscopically for the purposes of this report.

### Iron Nails

A total of 82 nails were recovered from the site. The nails were distributed evenly across the site, and several different sizes were noted, including large thick nails with square shafts, short squat nails and long thin nails. All the nails appeared to be hand-made, and although no complete examples were recovered, the majority were almost complete.

**Table of contexts with nails:**

| Context | Quantity |
|---|---|
| 801 | 20 |
| 803 | 1 |
| 814 | 2 |
| 901 | 11 |
| 902 | 2 |
| 903 | 6 |
| 904 | 1 |
| 905 | 2 |
| U/S | 37 |

**Other Iron**

Five contexts (801, 814, 901, 903, U/S) produced other iron finds. Identifiable finds from context 801 included a circular washer, a rod with a triangular cross-section, a large ring, two strips and a chain harrow link. Context 814 produced another iron rod, although this one was square in section. Part of a buckle was recovered from context 901, as was another iron strip and two horseshoe fragments, whilst context 903 produced another two iron strips, two tent pegs and an amorphous lump. A hook, part of a knife blade, complete with part of the tang and another three lumps of iron were also recovered from the site, but these pieces were unstratified.

**Copper Alloy**

Nineteen copper alloy items were recovered from the site; six from context 801, one from context 903 and the remainder were unstratified. The items from context 801 included a part of a pulley mechanism, which was concealed behind a white ceramic disc. It is possible that this item was from a clock. A button with the Stafford Knot and the initials SAR was recovered from the same context, as was a section of crushed pipe, a strip with three holes and part of a thin, narrow grille. A thimble was recovered from context 903; this item was crushed, but complete. The remainder of the material was unstratified, but included another thimble, a strip, a possible bullet case, two washers, five tacks, a buckled sheet of scrap, a piece of copper sheet with a hole drilled into it and a plain button.

**Lead**

Five lead items were recovered from the site. The most identifiable pieces were two musket balls (U/S) and a pin or tack (U/S). A flat lead disc, 34mm in diameter, was recovered from context 801, and may have been some kind of weight. A piece of lead scrap was also recovered from the same context. Two further lead scraps were unstratified.

**Clay Pipe**

A total of forty-six fragments of clay pipe were recovered from the site. Most of the material was undiagnostic stem fragments, although a mouthpiece was noted (901), as was a stem with the heel part of the bowl still in-situ, which had been stamped with what appeared to be a capital B (801). Four small bowl fragments were also noted, as can be seen from the table below; however these fragments were too small to be datable with any certainty.

**Table of contexts containing clay pipe:**

| Context | Number of stem fragments | Number of bowl fragments |
|---|---|---|
| 801 | 11 | 1 |
| 802 | 4 | - |
| 803 | 1 | - |
| 901 | 14 | 1 |
| 902 | 2 | - |
| 903 | 5 | - |
| U/S | 5 | 2 |
| **TOTAL** | **42** | **4** |

**Slag**

Three contexts produced pieces of slag (802 x 1, 901 x 1, U/S x 2). None of the fragments were magnetic, and all appeared to be pieces of tap slag.

**Shell**

Six fragments of oyster shell were recovered from the site (802 x 3, 901 x 3) as well as two fragments of snail shell (903 x 2). None of the shell appeared to have been worked, and is more likely to be food waste.

**Worked Bone**

One piece of worked bone was recovered from the site (902). This piece was a long thin flat piece of bone, rounded at one end, and tapering to a thin wedge-shape at the other.

**Coins**

Coins from the site included two small coins of possible medieval date (801, 912), as well as a George V penny dating to 1936 (802) and a possible coin blank (U/S).

**Worked Stone** *by Rob Ixer*

One piece of worked stone was recovered (905). This piece was identified as a hone stone, made from a fine-grained, micaceous schist, possibly from Eidsborg, Norway.

**Worked Flint**

One piece of worked flint – a flake - was recovered from context 804.

**Other Ceramic**

Two ceramic marbles were recovered from contexts 801 and 903.

## 8 ANIMAL BONE *BY Matilda Holmes*

### 8.1 Taphonomy and Condition

The bones were generally in fair condition, with few fresh breaks, although there was evidence for post deposition breakage, where 90 fragments had broken in antiquity and were subsequently refitted to make 29 larger pieces. A number of Taphonomic factors were recorded in similar proportions in all phases – gnawed (4-5%) and butchered bones (2-7%) - with the exception of the Roman assemblage, which had a relatively high number of burnt fragments (22%), compared to those from other phases (3-9%), although this was not altogether surprising given the nature of the feature described above.

### 8.2 The Assemblage

Table 1 shows the fragment count of animal bone retrieved. This was a small assemblage of which only 213 fragments were identified to species. The majority of bones came from Post Medieval contexts and, to a lesser extent 11/12$^{th}$ Centuries. This pattern is similar to that noted from previous excavations at Tutbury Castle, and may suggest that refuse was discarded

in a different area during the medieval phase of occupation. Very few Roman or later Medieval bones were retrieved from this area.

The main domestic species (cattle, sheep / goat and pig) were dominant in all phases, although the two best represented phases (11/12th Centuries and Post Medieval) contained a far greater range of species, including deer (roe and fallow), cat, horse, chicken and goose, as well as red deer and dog in the latter phase. That dogs were inhabitants of the site is evidenced by the presence of gnawed bones in all post conquest phases.

The large species diversity noted in these two phases, particularly considering the small size of the sample is notable, and can be a sign of high status sites, especially when coupled with the high proportion of pig, and presence of deer (Grant 1988). Similar species were noted in assemblages from 2005 and 2006 (Holmes 2005; 2006), as well as at Dudley Castle (Thomas, 2005), Scarborough Castle (Weinstock, 2002), Sandal Castle (Griffith et al, 1983), Castle Acre Castle (Lawrence, 1982) and Barnard Castle (Jones et al, 1985).

There was very little ageing data from either bone fusion, tooth wear or eruption for the main domestic species (cattle, sheep / goat and pigs), but that available fit into the patterns noted in previous seasons, where pigs were bred primarily for meat production, sheep were more important for their secondary products (most notably wool) and cattle were probably bred for both meat and traction and / or dairying.

Table 1: Species Representation (fragment count)

| Species | Roman | 11-12th C | 14th C | Medieval | Post Medieval | Modern |
|---|---|---|---|---|---|---|
| Cattle | 1 | 10 | 4 | 4 | 44 | 4 |
| Sheep / Goat | 3 | 9 | 3 | 4 | 25 | 3 |
| Pig | 2 | 8 | 4 | 3 | 20 | 2 |
| Horse | | 2 | | | 8 | |
| Dog | | | | | 1 | |
| Cat | | 1 | | | 3 | |
| Deer | | 2 | | | 7 | |
| Fallow Deer | | 2 | 1 | | 8 | 4 |
| Roe Deer | | 2 | | | 1 | |
| Red Deer | | | | | 3 | |
| Goose | | 3 | | 1 | 2 | |
| Chicken | | 3 | | 1 | 3 | |
| Other bird | | | | | 1 | |
| Fish | | | | | | 1 |
| Total | 6 | 42 | 12 | 13 | 127 | 14 |
| Unidentified Mammal | 1 | 19 | 5 | 1 | 59 | 2 |
| Unidentified Large Mammal | 1 | 20 | 26 | 4 | 58 | 13 |
| Unidentified Medium Mammal | 1 | 30 | 12 | 7 | 72 | 6 |
| Unidentified Bird | | 3 | 1 | | 13 | |
| Total | 9 | 114 | 56 | 25 | 328 | 35 |

## 9 DISCUSSION

The discovery of the Roman oven-like feature in the middle of the lower outer bailey area was unexpected but fits in with other Roman finds made at Tutbury Castle in the past. Sherds of Iron Age and Roman pottery were found during excavations in the inner bailey in the 1980s,

and it has been suggested that an Iron Age hillfort might have been located here (Staffordshire County Council 1992, 3-4). If so it is very probable that the high ground later to be occupied by the castle would have continued to be utilised during the Roman period too.

The shallowness of medieval stratigraphy in Trench 8 and the closeness of Roman levels to the present ground surface might indicate that there has been some relatively recent planing away of this part of the outer platform, taking out medieval layers and redepositing them elsewhere.

The marked difference in the character of the stratigraphy found in Trench 8 and Trench 9 sheds interesting light on the origins of the two outer baileys and the deep cleft or hollow way that divides them. It has always seemed probable that the natural topography has been greatly modified at various times in order to bring about such an optimal defensive formation. Evidence from the excavations supports this view. It shows that the plateau of the outer bailey was in existence in Roman times, long before the castle was constructed, at least in the area of Trench 8. This was not the case, however, in the area of Trench 9, where an additional part of the plateau has been grafted on at a later date. Pottery from layer 905 dates this enlargement of the outer bailey to the 11$^{th}$/12$^{th}$ century, with further material added at later dates. It is possible that some of this material originated from the planing away of the outer bailey surface to the south (see discussion above) or alternatively from the hollow way to the north, which may have been artificially deepened at the same time. Evidence showing that the outer bailey was extensively modified in medieval times can perhaps be extrapolated to the middle bailey too, since both platforms are of approximately the same size and shape (if not on the same level) and seem to be part of an overall symmetrical design.

What is the relationship between the excavated evidence and the results of the geophysical survey the year before? Trenches located with the specific aim of uncovering geophysical anomalies were only partially successful in revealing the expected structural features. In Trench 9 the linear anomaly of the geophysical survey may correspond with the cobbled surface - probably a path – that was encountered at a depth of 1.3m below the present ground surface. In Trench 8 the anticipated segment of a large circular feature, 23m in diameter, was not found, although the oven-like feature encountered may correspond to a 3m wide roughly circular feature which shows up as a strong anomaly on the geophysical survey greyscale.

## 10 ACKNOWLEDGEMENTS

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# APPENDIX 1

## Appendix 1: Context descriptions

### Trench 8

| Context | Cut | Fill | Layer | Description |
|---|---|---|---|---|
| 800 | | | √ | Modern turf |
| 801 | | | √ | Dark brown black clay silt. Modern topsoil |
| 802 | | | √ | Dark brown black silty clay. Post-medieval |
| 803 | | | √ | Mid yellow brown. Compacted gravel layer. |
| 804 | | | √ | Compact mid orange brown sandy clay |
| 805 | | | √ | Dark reddish brown sandy clay |
| **[806]** | √ | | | Shallow pit or scoop, cut into layer 802. Contains burnt animal bone |
| 807 | | √ | | Dark brown sandy clay, mottled black and yellow, fill of pit 806 |
| 808 | | | | Compact mid reddish brown sandy clay, occasional charcoal flecks |
| **[811]** | √ | | | Cut of shallow sub-circular pit or posthole |
| 812 | | √ | | Dark reddish brown sandy clay, frequent small stones |
| **[813]** | √ | | | Cut of large oven or kiln-like feature, cut into layer 808 |
| 810 | | √ | | Mid reddish brown clay silt. Occasional charcoal flecks. Fill of 813 |
| 814 | | √ | | Mid brown sandy clay. Occasional charcoal flecks. Upper fill of 813 |
| 824 | | √ | | Dark brown-black silty clay. Frequent charcoal flecks. Fill of 813 |
| 825 | | √ | | Similar to 824, but more compact. Fill of 813 |
| 826 | | √ | | Charcoal and red burnt clay layer. Lower fill of 813 |
| 827 | | √ | | Dark greyish brown clay. Frequent flecks of charcoal. Fill of 813 |
| 815 | | | √ | Compact mid reddish brown clay sand |
| **[816]** | √ | | | Cut of natural gully-like feature, segment 1 |
| 817 | | √ | | Compact reddish brown clay sand. Fill of natural gully 816 |
| **[818]** | √ | | | Cut of natural gully-like feature, segment 2 |
| 819 | | √ | | Compact reddish brown clay sand. Fill of natural gully-like feature 818 |
| **[820]** | √ | | | Cut of small pit or scoop |
| 821 | | √ | | Dark brown silty clay. Occasional charcoal flecks. Fill of pit 820 |
| **[822]** | √ | | | Cut of sub circular pit containing large stone |
| 823 | | √ | | Dark brown silty clay. Fill of pit 822 |

Trench 9

| Context | Cut | Fill | Layer | Description |
|---|---|---|---|---|
| 900 | | | √ | Modern turf |
| 901 | | | √ | Dark brown clay silt. Modern topsoil |
| 902 | | | √ | Dark brown silty clay. 19th century |
| 903 | | | √ | Dark reddish brown silty clay. Post medieval |
| 904 | | | √ | Mid brown clay loam. |
| 905 | | | √ | Dark brown silty clay loam |
| **[906]** | √ | | | Cut of clay-filled linear feature, segment 1 |
| 907 | | √ | | Mid reddish brown clay. Fill of 906. |
| **[908]** | √ | | | Cut of clay-filled linear feature, segment 2 |
| 909 | | √ | | Mid reddish brown clay. Fill of 906. |
| 911 | | | √ | Compact orange brown clay. Natural |
| 912 | | | √ | Layer of small-medium rounded cobbles. External surface. Path? |
| **[913]** | √ | | | Cut of small sub-circular posthole |
| 914 | | √ | | Dark greyish brown silty clay. Fill of posthole 913 |
| **[915]** | √ | | | Cut of sub-oval pit or scoop |
| 916 | | √ | | Dark greyish brown silty clay. Fill of posthole 915 |
| **[917]** | √ | | | Cut of small sub-rectangular posthole |
| 918 | | √ | | Dark greyish brown silty clay |

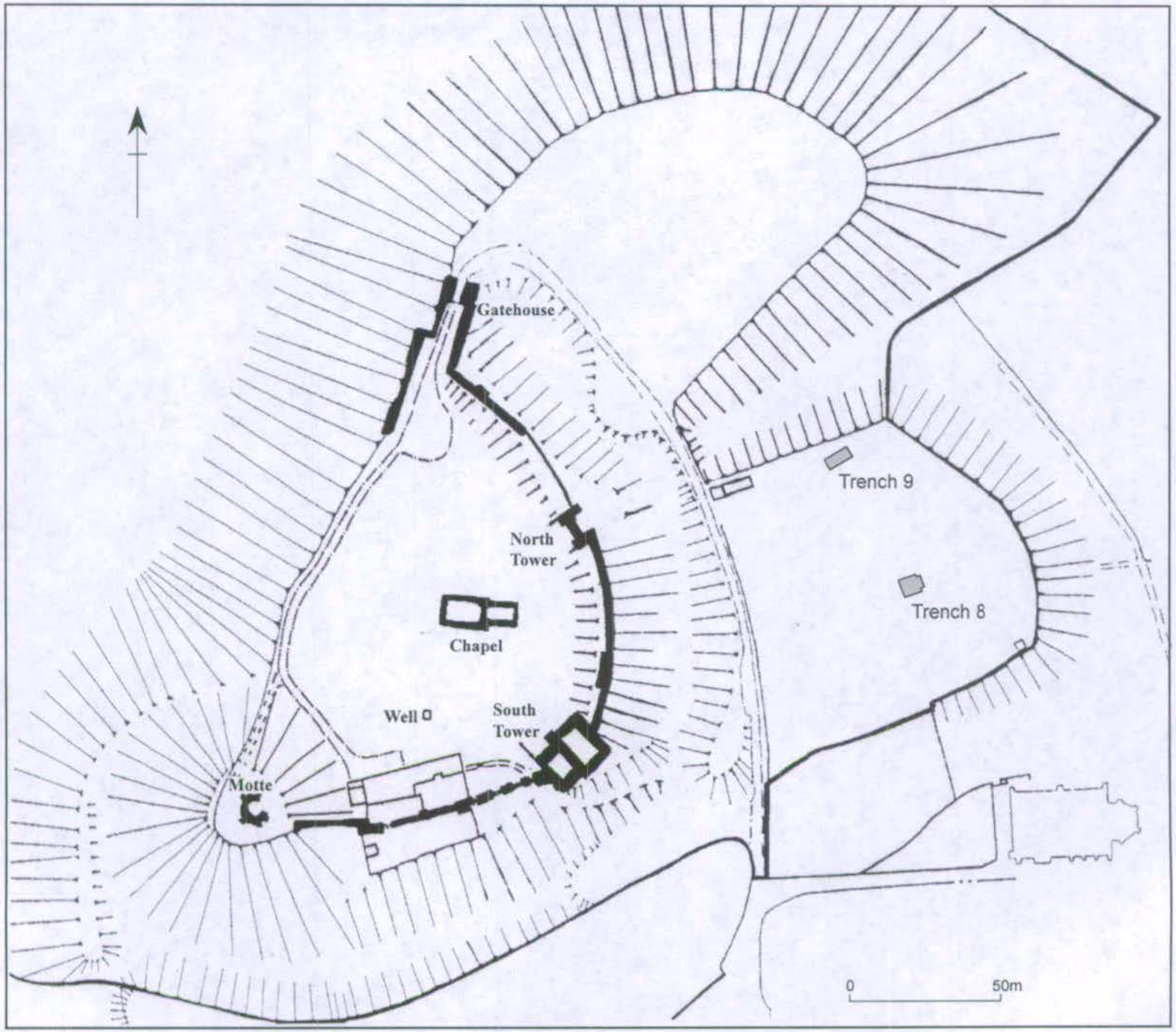
Gatehouse
Trench 9
North
Tower
Trench 8
Chapel
Well
South
Tower
Motte
0
50m

Fig.1

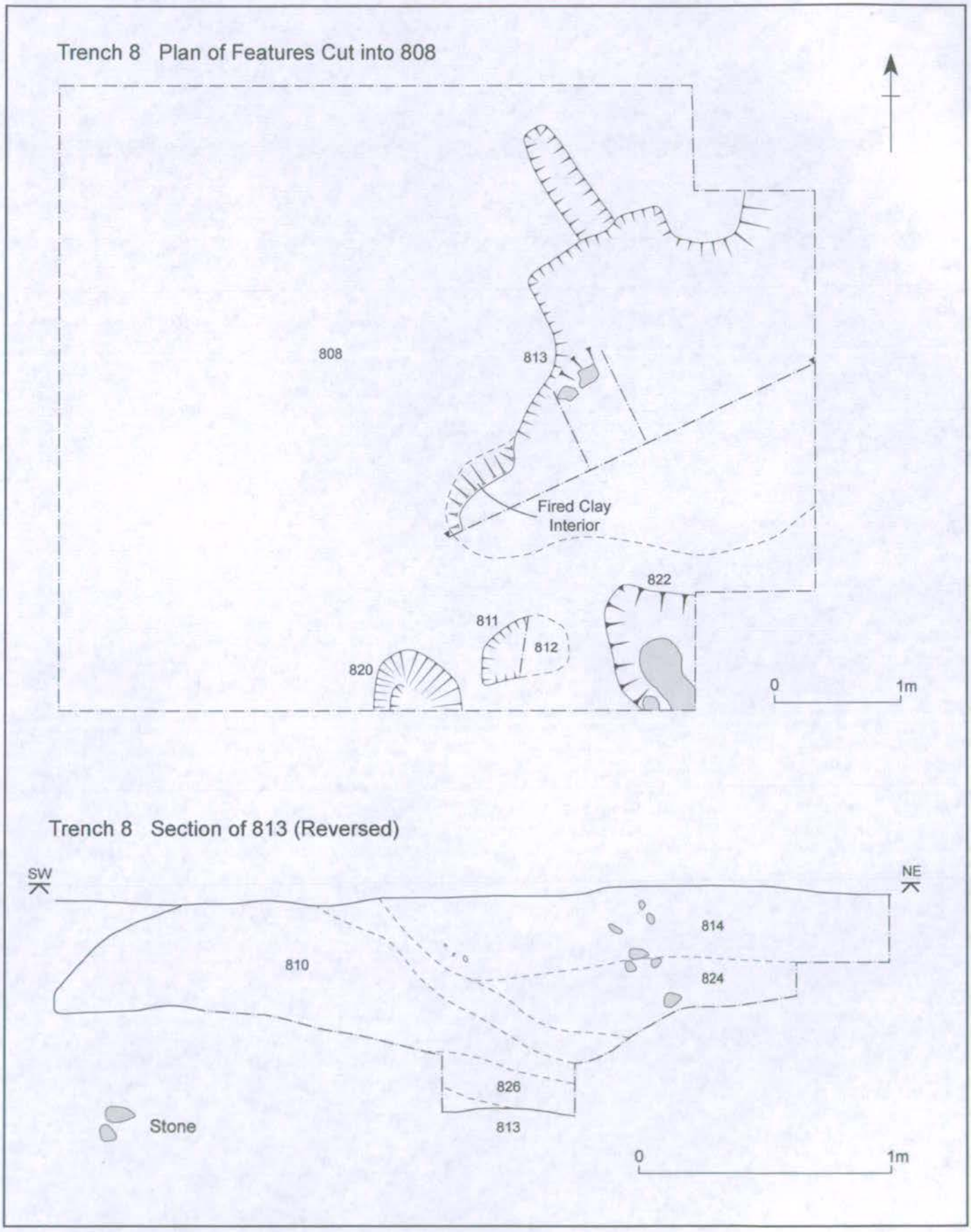
Trench 8 Plan of Features Cut into 808
808
813
Fired Clay
Interior
822
811
812
820
0
1m
Trench 8 Section of 813 (Reversed)
SW
NE
814
810
824
826
813
Stone
0
1m

Fig.2

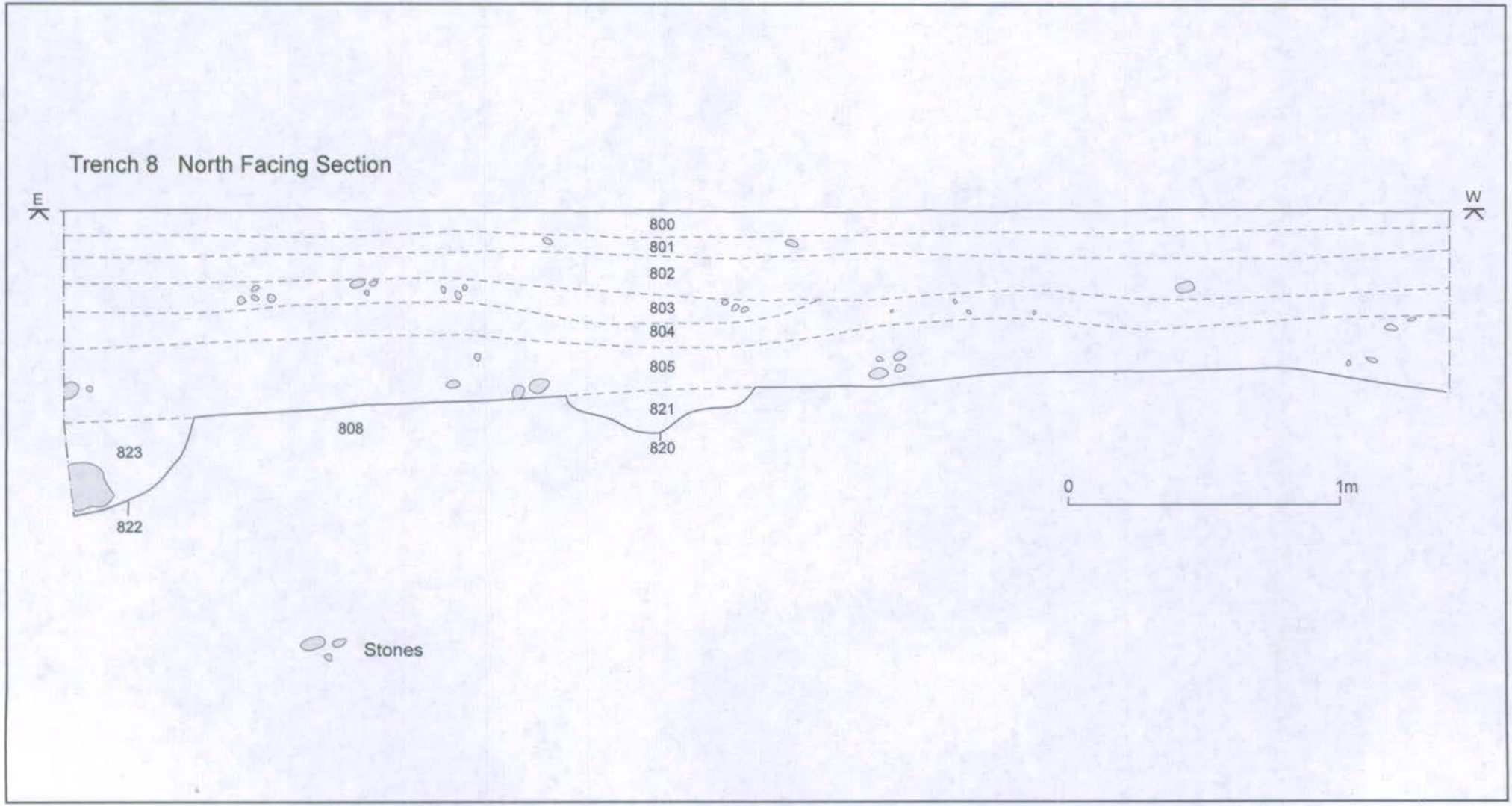
Trench 8 North Facing Section
E
W
800
801
802
803
804
805
821
820
808
823
822
0
1m
Stones

Fig.3

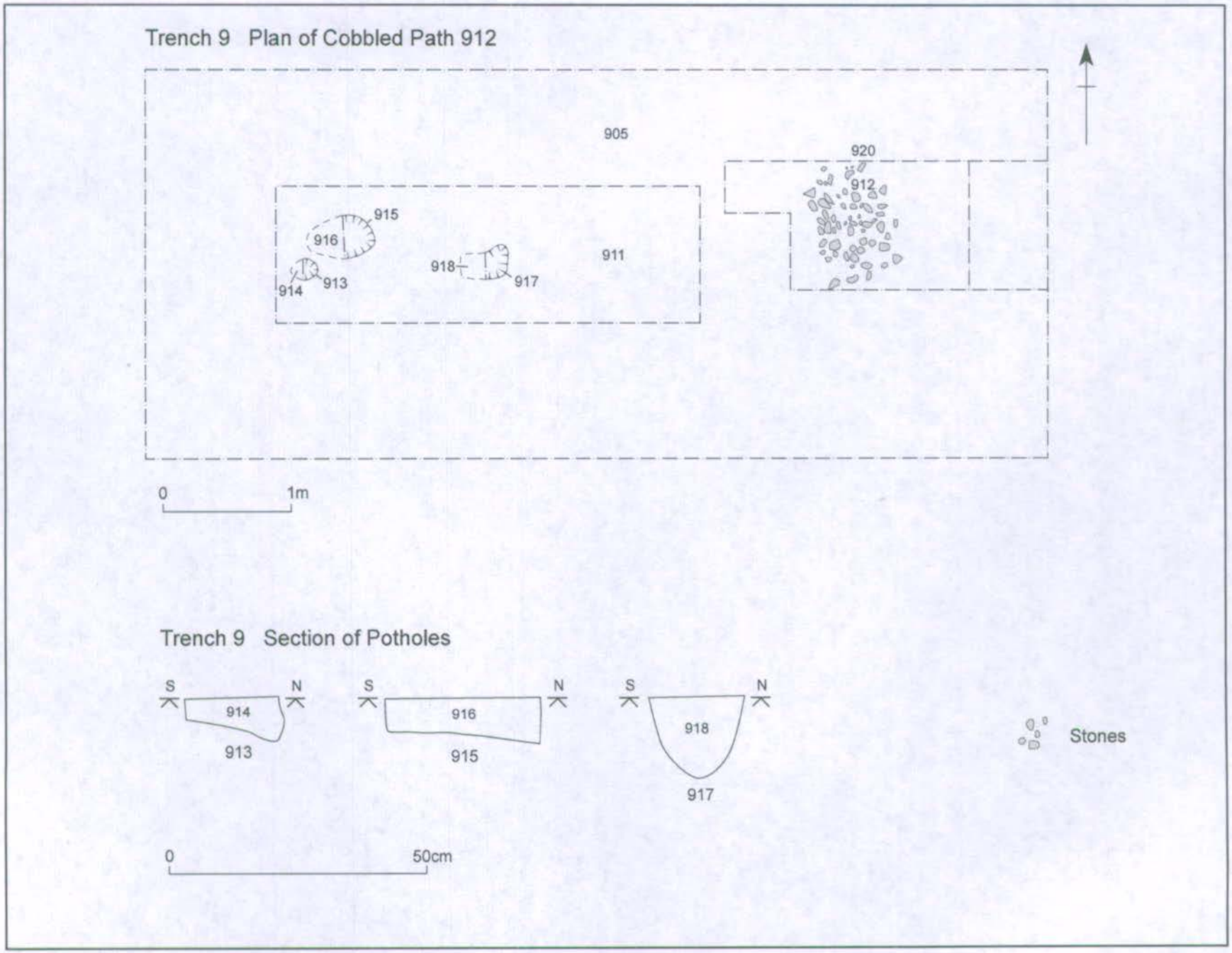
Trench 9 Plan of Cobbled Path 912
905
920
912
915
916
911
918
917
914
913
0
1m
Trench 9 Section of Potholes
S
N
914
913
916
915
918
917
Stones
0
50cm

Fig.4

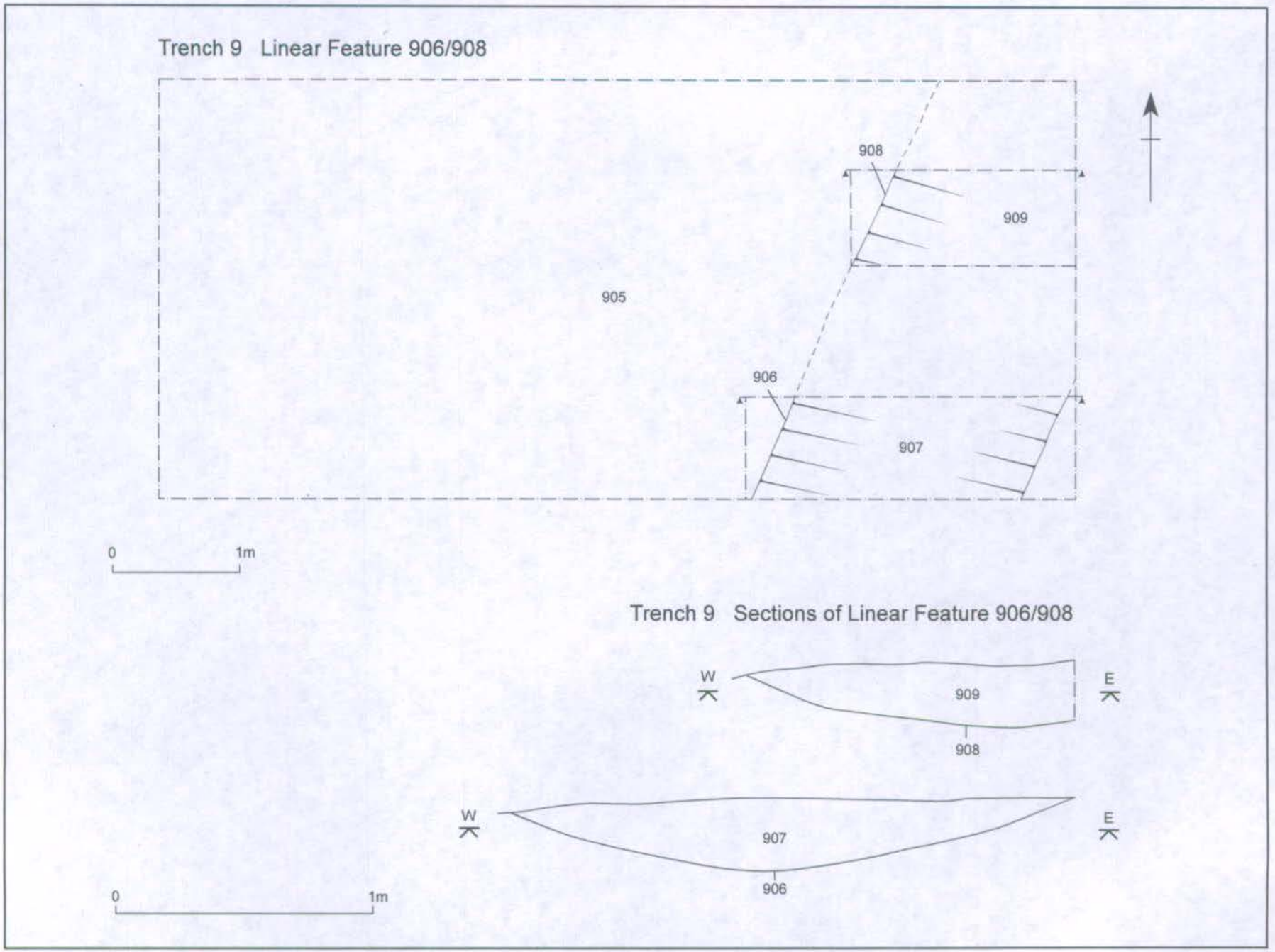
Trench 9 Linear Feature 906/908
908
909
905
906
907
0
1m
Trench 9 Sections of Linear Feature 906/908
W
E
909
908
W
E
907
906
0
1m

Fig.5

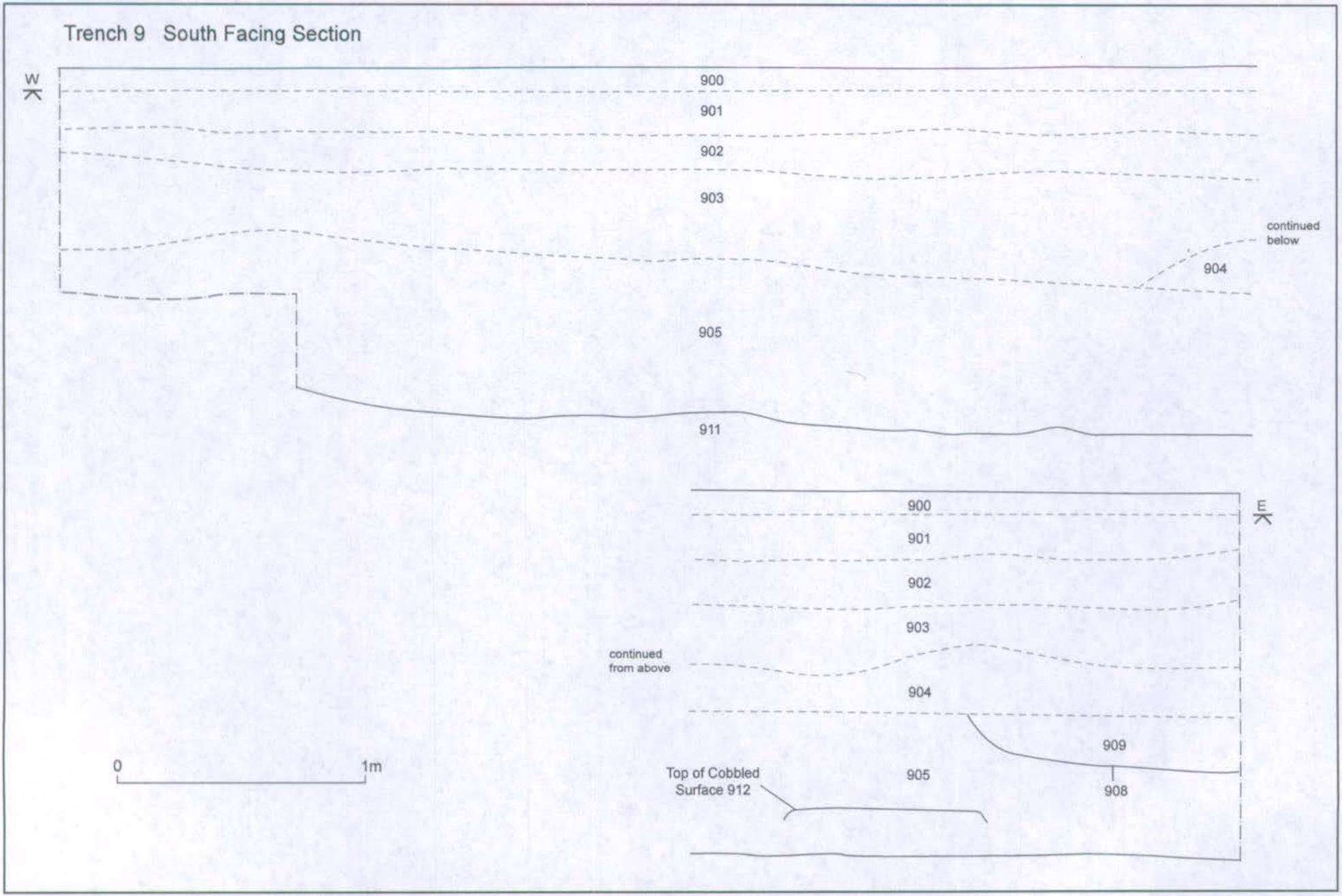
Trench 9 South Facing Section
W
900
901
902
903
continued below
904
905
911
E
900
901
902
903
continued from above
904
909
905
908
Top of Cobbled Surface 912
0
1m

Fig.6

Plate 1

Plate 2

Plate 3

Plate 4

Plate 5

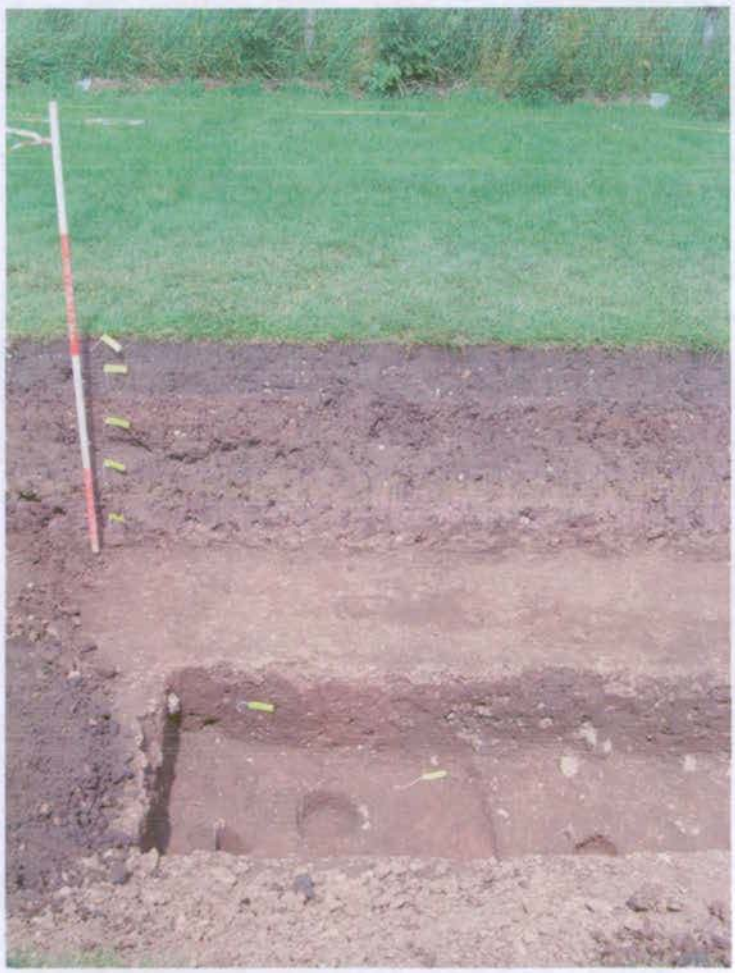

Plate 6

Plate 7