

*BIRMINGHAM UNIVERSITY  
FIELD ARCHAEOLOGY UNIT*

**An Archaeological Evaluation at  
Orton's Pasture, Mill Street,  
Rocester, Staffordshire**

*B.U.F.A.U.*



Birmingham University Field Archaeology Unit

Project No. 128.01

October 1995

**An Archaeological Evaluation at  
Orton's Pasture, Mill Street,  
Rocester, Staffordshire**

by

Alex Jones and Richard Cuttler

with contributions by L. Bevan, I. Ferris and R. Tabor

*For further information please contact:*

Simon Buteux, Iain Ferris or Peter Leach (Directors)

Birmingham University Field Archaeology Unit

The University of Birmingham

Edgbaston

Birmingham B15 2TT

Tel: 0121 414 5513

Fax: 0121 414 5516

E-Mail: BUFAU@bham.ac.uk

Web Address: <http://www.bham.ac.uk/BUFAU/>

# An Archaeological Evaluation at Orton's Pasture, Mill Street, Rocester, Staffordshire

## Contents

|                                       | Page |
|---------------------------------------|------|
| INTRODUCTION.....                     | 1    |
| THE EVALUATION.....                   | 2    |
| FIELDWALKING.....                     | 2    |
| GEOPHYSICAL SURVEY.....               | 2    |
| TRIAL TRENCHING.....                  | 5    |
| THE FINDS .....                       | 11   |
| ENVIRONMENTAL EVIDENCE .....          | 13   |
| DISCUSSION and INTERPRETATION.....    | 13   |
| IMPLICATIONS and RECOMMENDATIONS..... | 14   |
| ACKNOWLEDGEMENTS.....                 | 15   |
| REFERENCES.....                       | 15   |
| APPENDIX.....                         | 15   |

## List of Figures

- |          |  |
|----------|--|
| Figure 1 | Location Maps and Plans  |
| Figure 2 | Orton's Pasture: the Areas of Evaluation, plus 1995 Gradiometer:<br>Interpretation |
| Figure 3 | 1990 Gradiometer Survey: Plot  |
| Figure 4 | 1990 Gradiometer Survey: Interpretation  |
| Figure 5 | Resistivity Survey: Plot and Interpretation  |
| Figure 6 | Trial Trenches 1-5 :Archaeological Features  |
| Figure 7 | Trial Trenches 9-12 :Archaeological Features                                       |
| Figure 8 | Feature sections   |

An Archaeological Evaluation at Orton's Pasture,  
Mill Street, Rocester

## INTRODUCTION

This report describes the results of an archaeological evaluation employing fieldwalking, geophysical survey and trial trenching, in advance of a proposed housing development at Orton's Pasture, Rocester, hereinafter called the study area. The evaluation was undertaken in two stages of geophysical survey and trial trenching, the results of which are combined in this report.

In late September/early October 1990 the Birmingham University Field Archaeology Unit was commissioned by Philip Atkins of Abbey Farm, Rocester to undertake an initial archaeological evaluation (Stage One) of farm land intended for future residential development. Without specific details of the proposed development having been formulated, this evaluation provided an overview of the archaeological potential of the study area.

A further, Stage Two, evaluation was commissioned in September 1995. This was designed to target and assess the archaeological potential of specific zones within the study area, potentially most at risk from development groundworks. This evaluation was conducted prior to the issue of a brief and schedule from the County Archaeology Office of Staffordshire County Council. However, the methodology of this evaluation conforms to guidelines laid down in **Planning Policy Guidance Note 16** (November 1990), and the recommendations for archaeological evaluations proposed by **Management of Archaeological Projects II**.

The purpose of the evaluation was to determine the location, extent, date, character, significance and quality of any archaeological remains which may be affected by the proposed development and to provide a basis for a series of recommendations to mitigate the impact of the development.

The narrow strip of ploughed ground to the west of Valley View Walk, and the area covered by the Walk itself, were not encompassed by this report, although they may lie within future development proposals.

## THE STUDY AREA AND ITS SETTING

The study area (Figure 1) is the northern portion of the field called Orton's Pasture, lying to the south of Mill Street on the eastern fringes of the village of Rocester, Staffordshire (centred on National Grid Reference SK 11053937). The southern boundary of Abbey Field, directly to the north, also forms the southern boundary of the Scheduled Ancient Monument of **Rocester Abbey and Roman Settlement** (County Monument Number, Staffordshire No.66).

The pioneering work of Dr. Graham Webster in 1961 identified the north-west corner of a Roman fort and settlement of Rocester, much of which was incorporated within the protection of the Scheduled Area. Further work within the northern part of the projected fort, particularly in the New Cemetery (1985-1987), and to a lesser extent at Vicarage Gardens (1968), Dove First School (1985/1986), and Abbey Farm (1990) has led to the identification of an earlier military presence in Rocester and to the refining of the interpretation of those phases first identified by Dr. Webster. Work on the fringes of the main focus of Roman activity, particularly near the junction of Mill Street/High Street/Ashbourne Road (1964) and in Mill

Field (1986) has indicated significant activity of the Roman period both to the west and to the east of the Scheduled Area.

## EVALUATION (Figure 2)

In view of the size of the area under consideration, roughly some 1.60 hectares, the study area was systematically field-walked after ploughing. A sample geophysical survey was then undertaken in areas prioritised by the field walking. Trial trenches were then targeted in areas deemed significant from both the field walking and the geophysical survey. The field walking and the geophysical survey results are presented below as initially formulated. The significance of the evidence is discussed after the presentation of the results of the trial trenching.

### *Fieldwalking*

Immediately after ploughing, and in damp conditions ideal for the identification of surface scatters of artefacts, the field was walked north-south in approximate 3m wide lanes, with artefacts being noted but not picked up from the surface of the field. It was intended after this initial exercise to grid those areas of the field deemed significant and to plot the densities of material within the grid. However, the initial walk almost immediately eliminated large areas of the field which were free of Roman material and indeed contained little of the 'background noise' of post-medieval pottery one would normally expect to find in a field so close to a settlement.

The significant areas, where dense scatters of Roman pottery and lesser quantities of post-medieval pot were noted, lay exclusively to the north of the field, in the narrow strip fronting on to Mill Lane and extending back southwards some 90-100m from the point where the field widens out, this scatter then dying off c.45m to the west of the eastern field boundary. Within this concentration there were no immediately distinct densities of finds - they appeared consistently spread over the whole surface; gridding was therefore deemed inappropriate. It was decided that the geophysical survey should concentrate in particular on this area of high-density scatter.

Towards the southwest corner of the survey area there was noted a high density of larger river cobbles. Such cobbles, although generally of a smaller size, were scattered across the surface of the whole field, and it was decided to test this area also, but by trial trenching only.

### *Geophysical survey* (by Alex Jones and Richard Tabor) (Figures 2-5)

The aims of the survey were firstly to locate potential archaeological features and permit the accurate positioning of the evaluation trial trenches in relation to any anomalies located, and secondly to permit cross-comparison between the results of gradiometer and resistivity surveys of the same areas. To achieve these overall objectives, the survey areas were positioned to intercept any major archaeological features crossing the site. The northern part of the site, closer to the known remains of the Roman forts, was more intensively examined, and a limited resistivity survey was undertaken here in addition to the more extensive gradiometer survey. The methodology of the survey is outlined in an appendix to this report. The gradiometer survey took place in two phases, one in 1990 and the other in 1995. An identical methodology and equipment was used on both occasions, though interpretation of the results of the second phase of survey utilised the more sophisticated Geoplot 2 package.

## Results

A resistivity or magnetic anomaly may be defined as an instrument-reading contrasting with the general 'background' level, which may also vary slightly from place to place (Clark 1990).

Positive anomalies are above, and negative anomalies are below, the general level. During interpretation, the strength of the anomaly is considered, together with its shape, sharpness of outline, and the distribution of both high and low values within each anomaly.

The computed surveys are reproduced as dot-density plots, for the 1990 survey, which highlight the areas of positive anomalies (gradiometer or resistivity), using darker shading: the areas of negative anomalies show as unshaded areas. Extreme high and low readings have been partly truncated. Interpretation plots are also presented as part of this report. The 1995 gradiometer survey results have only here been reproduced as an interpretative plot.

### The Gradiometer Survey (Figures 2-4)

#### Areas 1 and 2

In Area 1 the readings recorded during the survey were mostly within the range -10 to 15 nT. Readings of background magnetic field were concentrated in the narrow range -3 to 2 nT.

A strong negative anomaly (A1), 50m long, was located inside the western boundary of the site, measuring -175 to -20 nT. An amorphous anomaly in the north of the survey area (A2) consists of a group of strong negative values enclosing scattered high positive values, measuring between 100-280 nT. Anomaly A3 consists of a concentration of negative values down to -12 nT, surrounded by an envelope of values in the range 2-10 nT.

A distinct, linear anomaly (A4), 2m wide, aligned approximately north-south, may be defined for a length of 40m, and contains values between 3-30 nT. A second, more indistinct, linear anomaly (A5), to the west, shared the alignment of A4, but may not form a single continuous anomaly.

Perhaps the most distinct negative anomaly (A6), 5m wide, is aligned south-west-north-east and measured between -10 to -220 nT. A group of randomly-spaced high anomalies was recorded along its southern edge, measuring between 10 to 200 nT. South of A6, a sharply-defined, positive anomaly (A7), 3m wide and 10m across, appears to complete the right-angled corner formed by A4 and A11 (see below).

South of A7, a linear band 2m across (A8) may be defined for a total length of 30m, and is visible on either side of A6. Anomaly A8 contains values between 3-8 nT. It is aligned approximately at right-angles to A4, and its eastern terminus is in line with the latter. A further linear anomaly (A11), north of A8 and following a common alignment, may represent a continuation of the stronger anomaly A7 to the east. A11 contains values between 5-10 nT.

In the west of Area 2, an area of wildly fluctuating readings (A12), measuring 15m by 35m, may mask any underlying archaeological anomalies. Anomaly A13, south of the iron fence-line, contains strong negative values between -10 and -35 nT.

A linear anomaly (A9) may be defined for a length of 30m south of A6, following the approximate position and alignment of A4 to the north. This anomaly consists of a central band of values 1m wide measuring between -3 to -7 nT, surrounded by positive values. In the south of Area 1 only one anomaly may be defined (A 10). This very indistinct, and possibly discontinuous, linear anomaly is aligned approximately north-south and contains values between 2 to 5 nT.

### Area 3

In Area 3 the readings recorded during the survey were mostly within the range - 10 to 8 nT. No anomalies could be defined within this area. A gradual increase in values towards the eastern fence-line may correlate with an exposure of rounded stones observed in this area inside the eastern site boundary.

### Area 4

In this area, positioned to partially overlap into previously surveyed Areas 1 and 2, most of the data readings occur within a very narrow band, and a certain amount of manipulation of data background has been necessary to bring out the interpretative plots of individual features as shown in Figure 2. The exception to this is linear anomaly A8, which was also recorded in 1990. The trace plots also suggested that the large circular anomaly B1 was an archaeological feature, but trial trenching here did not confirm the presence of any kind of feature in this area. It may be that this anomaly can be explained as being pedological/geological by its being located almost exactly at an interface between gravel and alluvial deposits. Numerous other groupings of anomalies, such as B2, B4 and B13, suggest the presence of ?structures, while anomalies B10, B11 and B12 would appear to represent isolated, large pits.

### The Resistivity Survey (Figure 5)

Recorded readings of resistivity were in the extended range between 60-270 Ohms. The highest overall readings were concentrated adjacent to the road, and in the south-western square. Higher readings were also recorded along the eastern site boundary.

A positive linear anomaly (R1), 30m long and up to 3m wide, aligned approximately north-south, contains values in the range between 80-150 Ohms. The most distinct anomaly (R2) is represented by a band of predominantly low values, up to 5m across, measuring between 100-120 Ohms, and is aligned southwest-northeast. The negative anomaly R3, seen for a length of 15m, contains values between 90-120 Ohms. Anomaly R4, parallel with R3, is well-defined in plan and measures between 130-180 Ohms. A strong, discontinuous, irregularly-shaped positive anomaly (R5) contains values between 160 and 200 Ohms.

### Discussion and Interpretation

#### Gradiometer Survey

Anomalies A1 and A13 are probably caused by the adjoining metal fences. Anomalies A2, A3 and A12 represent modern disturbance and debris on the Mill Street frontage, and to the rear of the properties fronting on Mill Street. None of this group of anomalies was investigated further though anomalies A2, A3 and A12 may mask any archaeological anomalies more deeply buried.

Anomalies A5, A9 and A10 are very difficult to define or interpret. The former, possibly discontinuous, anomaly may be caused by metal litter, apparent on the

surface in this part of the site. This group of anomalies may merit further investigation.

The most distinct anomaly recorded during the survey, A6, is undoubtedly caused by a broad trench or ditch for modern services. Anomaly A6 appears to truncate A4, A7 and A11, and could be of recent origin.

Archaeologically, the most promising group of anomalies recorded in 1990 comprises A4, A7, A8 and A11. A4 is well defined and seen for a length of 40m. Two similarly well-defined anomalies, A8 and A11, are aligned perpendicular to A4. Anomaly A7 is also particularly distinct, and may represent a continuation of both A4 and A11.

The positive anomalies A4, A8, A11, and possibly A5, which all appear to be a minimum of 2m wide, may represent ditches which could be associated with the Roman fort complex at Rocoster. Alternatively, they may be a network of modern services connected to the new housing estate west of the site, or substantial field drains. Anomaly A7 probably relates to this ditch or service network, but its south-western part may belong to the pattern of high anomalies recorded along the south-eastern edge of A6. The similarity in alignment and position between A4 and A9 may suggest that they belong to a single feature, which is more apparent to the north, because of its shallower depth in that direction.

Of the 1995 anomalies, again ditch A8 was very distinct, with groups of more isolated features lying outside the area enclosed by the ditch, to the south. These groups of anomalies would appear to be pits or wells B10, B11 and B12, and possible structures B2, B4 and B13. The large, circular anomaly B1 would appear to be a prehistoric ring-ditch, though this was not confirmed by excavation.

### Resistivity Survey

The most distinct anomaly (R2) correlates with the position of anomaly A6, but its overall shape is less clear. Similarly, R3 and part of A7 may coincide. Anomaly R5 appears to coincide approximately with the position of the lower part of A4. No parallel exists for the resistivity anomaly R4.

### Conclusion

Some limited degree of correlation exists between the results of the gradiometer and resistivity surveys. However, the gradiometer survey seems more successful in detecting and defining possible archaeological anomalies. Considerable variation in the range of background values of resistivity may have masked the definition of the smaller-sized or more indistinct features here. Nevertheless, it is true to say from a position of hindsight, following the trial trenching, that correlation between geophysical anomalies and features of archaeological origin was particularly strong on this site.

### Trial Trenching (Figures 2,6,7 and 8)

Twelve trial trenches were dug. The results of the cleaning of each trench will now be considered in turn, bearing in mind the proviso that the evaluation was undertaken to assess the nature and extent of any surviving archaeology rather than to excavate it, save in a limited number of instances where it was necessary to ascertain the date or function of a particular feature.



In all trenches the overburden was removed by a mechanical excavator to expose the uppermost levels of the natural subsoil. The machined surface was then hand-cleaned to define any archaeological features present, which were sampled by hand-excavation.

Recording was by means of pre-printed pro-forma recording sheets for contexts and features, supplemented by scale drawings, plans, sections, and photographs, which are all held in the archive.

### Trench 1

Aligned east-west, this c.20m long and 1.60m wide trench was located to cut across geophysical anomalies A4 and A5. The archaeological horizon was overlain by a c.0.35m thick deposit of plough-soil (1001) containing quantities of Roman pottery (110 sherds), iron smithing slag and animal bone. Immediately apparent at this level was the cut for a large pit or scoop (F2) which was emptied down to its base, formed by the natural gravel. It was backfilled with a 0.05m thick deposit of loose, dirty grey brown silt clay (1004), overlain by a 0.30m thick, dark brown silt clay with many inclusions of charcoal, pebbles, sandstone flecks and decayed bone (1003). While the lower fill was free of finds, layer 1003 was extremely prolific, containing animal bone, tile, smithing slag, glass, a copper-alloy 'dolphin' brooch and 117 sherds of Roman pottery, mainly coarse wares but including five sherds of Samian and two sherds of (?) Nene Valley colour-coated wares. The eastern cut of F2 provided a free section through what appeared to be intact stratigraphy above the natural gravel to a depth of c.0.35m; the uppermost surface only of these deposits was exposed in plan, therefore the relationships between the spread of dirty, charcoally-brown silt clay (1014) and, at the eastern end of the trench, a surface of red-brown gravel in a sandy matrix (1015) is uncertain, though they would appear to be cut by a feature (or features) backfilled with light brown clay (1017), small cobble (1016) and a dark brown silt (1018).

The western side of pit F2 cut through a spread of dirty brown silt clay with light brown clay patches (1013), perhaps equivalent to 1014 to the east, which itself overlay the cut of a feature backfilled with a dirty, charcoally brown clay with large river cobbles (1019). This feature was only exposed in a narrow sondage dug alongside the northern section face so its nature remains uncertain.

### Trench-2

Aligned roughly northwest-southeast Trench 2, c.30m long and 1.60m wide, was located to examine geophysical anomalies A6 and A7. As with Trench 1 the plough-soil (1001), 0.33m deep, was rich in finds, including 144 sherds of Roman pottery, animal bone, iron nails, lead, slag, glass and a fragment of crucible.

With the removal of the plough-soil and cleaning of the surfaces thus exposed it became apparent that here was a number of inter-cutting features at the centre of the trench (F7, F8, F9), all apparently linear gullies or ditches and, further to the south, a cobbled surface (1009), perhaps a road or track (F6).

A section was cut through Trench F7, to define its edges rather than to empty it fully, the dirty, mixed grey brown silt clay fill (1009) yielding an extremely dense concentration of Roman pottery (63 sherds).

### Trench 3

Trench 3, c.20m long by 1.60m wide and aligned north-south, was positioned to examine anomaly A11. The plough-soil (1001) was 0.42m deep and contained 26 sherds of Roman pottery as well as three prehistoric flints (a waste flake and two possible cores). At the south end of the trench the plough-soil directly overlay the natural gravel, while to the north a horizon of dirty, mixed, brown grey silt clay (1024) was exposed. Towards the middle of the trench was a 2.60m-wide ditch (F1), aligned east-west. This was partially sectioned and excavated to a depth of 0.75m, though not bottomed. It was backfilled with a dirty-brown silt clay (1025), overlain by a dark grey-brown silt clay with charcoal and pebble inclusions (1002), both containing Roman pottery (11 sherds in 1025, 38 sherds in 1002).

### Trench 4

Aligned east-west this trench, c.15m long by 1.60m wide, was located to examine geophysical anomaly A9. With the removal of the plough-soil (1001), 0.27m deep, a surface of alluvium was exposed along the length of the whole trench. At the western end the alluvium was cut by two north-south aligned gullies (F3, F4); both were fully excavated. The easternmost gully (F3) was 1.20m wide and 0.40m deep, with a rounded profile. Its base was filled with a grey-brown silt clay (1011), overlain by a linear deposit of river cobbles (1010) along its eastern edge and by a 0.30m deep deposit of dark grey-brown silt clay with charcoal and cobbles (1005). This upper-fill was undoubtedly a single, dumped deposit and contained an extremely high density of finds, including 77 sherds of Roman pottery, amongst which were sherds of a Derbyshire Ware jar and a (?)Nene Valley roughcast beaker.

The western gully (F4), separated from F3 by a distance of only 0.55m, was 0.85m wide and 0.35m deep. It too had a lower silty fill (1012) free of finds and an upper, mixed fill (1006), again containing a substantial quantity of pottery (54 sherds), including, once more, Derbyshire Ware.

### Trench 5

Aligned north-south, Trench 5 was c.24m long and 1.60m wide. No finds came from the 0.47m deep deposit of plough-soil which overlay the natural gravel or patchy alluvium along the whole length of the trench. The only feature in the trench was at the north end where an east-west aligned, linear trench (F5) was exposed, packed with clean yellow clay and river cobbles (1007). A section was excavated across this trench and it was revealed to be 0.70m wide and 0.35m deep, with almost vertical sides and a flat base. No finds were recovered from the backfill of the trench.

### Trench 6

Aligned east-west, c.20m long and 1.60m wide, no finds were recovered from the 0.21m deep plough-soil. This overlay a deposit of alluvium, in whose upper surface no features could be discerned. The alluvium was machined through at the western end of the trench to ascertain its depth, which was c.0.70m.

### Trench 7

Aligned east-west, c.17m long and 1.60m wide, no finds were recovered from the 0.40m thick plough-soil. No features showed in the exposed surface of clean alluvium, here sectioned to reveal a depth of only 0.10m.

#### Trench 8

In this trench, c.8m long and 1.60m wide, and aligned northwest-southeast, the plough-soil was only 0.16m deep and overlay a deposit of large cobbles in a sandy matrix. This deposit was machined out to a depth of 0.60m whereupon it was decided that the deposit must be natural gravel. No finds were recovered from the trench.

#### Trench 9

Trench 9 measured 17.5 m in length by 2 m in width and was aligned north-south. This trench was located in the northwestern part of the survey area, to the rear of properties fronting Mill Street. The trench was positioned in order to examine two anomalies identified during the geophysical survey; a linear anomaly (A8) and a possible pit (B2).

With the removal of the 0.20m deep ploughsoil (5000), the uppermost horizon of the natural subsoil was shown to vary considerably along the base of the machined trench. This comprised both natural gravels to the north of the trench (5009), and yellow/orange sand to the south of the trench (5010).

Located approximately 5m from the southern end of the trench, cutting both the yellow/orange sand (5010) and the gravel (5009), was a large ovoid feature (F501), aligned northeast-southwest. With steep sides and a flat base, feature F501 measured approximately 2.05m in width, and 0.4m in depth. The lower fill (5007) was a light brown silt sand with charcoal and flecks of pottery, the depth of which varied between 0.30m and 0.08m. This was sealed by a deposit of dark brown silt with sand and clay (5006), evident to a depth of 0.32m.

Located approximately 4m from the northern end of Trench 9 was a ditch (F500), aligned east-west. Measuring approximately 1.40m in width and 0.43m in depth, F500 had a rounded profile. The lower fill of the ditch (5003) was a dark silt with gravel containing four sherds of Roman mortaria. This was overlain by an upper fill of dark brown silt with sand (5002) containing two fragments of Mancetter mortaria. Orientated north-south along the western edge of Trench 9 was a linear feature (F502), which cut both F500 and F501. Its dark brown silty fill (5008) was only partially excavated, since the depth of the feature was evident in the ditch section (F500).

Features F500 and F501 were sealed by a layer of dark brown silt sand (5004). Containing a piece of clay pipe, this layer (5004) also sealed the natural sandy subsoil (5010) to a depth of 0.22m. Overlying layer 5004, directly above the ditch (F500), was a layer of stone (5005). This layer (5005) consisted of large irregular sandstone blocks varying between 0.10m and 0.25m in width.

A total of 28 sherds of pottery came from Trench 9, 14 of which were recovered whilst hand cleaning the base of the trench (5001). These included Nene Valley ware and Black Burnished ware.

#### Trench 10

Aligned east-west, Trench 10, c.20m long by 2.0m wide, was located to examine geophysical anomalies B3 and B4. The plough-soil (2000), measuring 0.23m in depth, contained three sherds of Roman pottery.

The earliest feature cut into the natural gravels (2007) was a small gully (F200), orientated north-south, located towards the middle of Trench 10. Measuring 0.52m in width and 0.12m in depth, F200 was filled with a light brown silt sand (2004) which contained one abraded sherd of Samian pottery. Cutting Feature F200 along its eastern edge was a small ovoid feature (F201). Orientated northeast-southwest, this feature had steep sides and a flat base and was filled with a light brown silt (2003), measuring 0.52m in depth.

An extension was machined perpendicular to Trench 10, since initially no ditch was exposed in Trench 9 which could be related to geophysical anomaly A8. As a continuation of F100, this section of ditch (F202) again contained two fills; a lower fill of dark silt and gravel (2005), and an upper fill of dark brown silt sand (2002). The upper fill of Feature F202 contained sherds of Samian, Black Burnished Ware, amphora and Derbyshire Ware. At the northern end of this extension were two circular patches of silt with charcoal and pottery flecks; 2008, c1.0m in width and 2009, c0.80m in width, which possibly correspond to geophysical anomaly B5. Although not excavated, it seems possible that these deposits (2008 and 2009) may represent fills of further pits.

### Trench 11

Trench 11 measured c23m in length, 3.5m in width, and was aligned east-west. This trench was located in the eastern part of the survey area to investigate geophysical anomalies B11 and B12. These geophysical anomalies corresponded almost exactly to two circular pits (F302 and F303). Both pits were cut into a yellow/orange sand (3016) which formed the natural sub-soil. Neither of these pits was fully excavated.

Sampled to a depth of 1.2m, the earliest fill encountered within pit F303, 2.3m in diameter, was an orange/brown silt sand (3011) which contained lenses of charcoal. This was overlain by a layer of clean orange sand (3010), approximately 0.13m in depth. This layer (3010) may have resulted from a collapse of the sides of the pit, or may have been a deliberate attempt to seal off layers below. A deep layer of dark brown silt, containing charcoal lenses, (3009) overlaid layer 3010 and was evident to a depth of 0.29m. This was sealed by a layer of medium brown silt with sand and clay (3007), 0.28 in depth and containing an extremely dense concentration of Roman pottery. Layer 3007 also contained two pins from copper alloy bow brooches and two fragments of blue/green Roman glass. The upper fill of Feature F303 was a light brown silt with sand (3002), evident to a depth of 0.54m, from which was recovered half a greyware lamp and a dome headed copper alloy stud.

In summary, the largest assemblage of Roman pottery, 198 sherds, and also the best preserved in terms of sherd size and 'fresh' appearance came from Feature F303. The assemblage included amphora, Samian, Black Burnished Ware, and fragments of a Nene Valley rough cast beaker.

The larger of the two pits (F302) was cut to the north west by a smaller ovoid pit (F304) aligned east-west. Filled with a dark brown silty clay (3008), F304 was approximately 0.60m in width and 0.76m in length and remained unexcavated. The large pit F302 measured 4.40m in diameter and was sampled to a depth of 0.60m. At this point the pit (F302) was sealed by a continuous layer of compact, sub-angular sandstone (3017), rising from the middle of the feature, to the outer edges where it was evident as a circle of sandstone on the surface. This was overlain by a layer of dark brown silt sand with clay which contained fragments of Samian, Derbyshire Ware, and Mancetter mortaria. This feature could also turn out to be an infilled well.

Located at the extreme eastern end of the trench were two gullies (F300 and F301). The easternmost gully (F300) was 1.05m in width and 0.47m in depth with a rounded profile. The lower fill was a dark brown silt sand (3004), approximately 0.18m in depth. This was overlain by a mixed dark brown silt (3003), evident to a depth of 0.27m. Feature F300 yielded a high concentration of pottery (44 sherds), which included amphora, Samian, Nene Valley colour coats and five sherds from a tazza.

The westernmost gully (F301), separated from F300 by a distance of 0.70m, had a V-shaped profile and measured 0.95m in width and 0.50m in depth. The single brown silty fill (3005) contained fragments of Black Burnished ware and First Century shell-tempered ware.

All features in Trench 11 were sealed by a layer of dark brown silt sand (3001), which varied in depth between 0.15m and 0.30m. The ploughsoil in Trench 11 measured approximately 0.35m in depth.

#### Trench 12

Trench 12 measured 33m in length by 4m in width, and was aligned north-south. This trench was located to examine the nature of the circular geophysical anomaly B1. Since the geophysical survey suggested the presence of a possible ring ditch, Trench 12 was machined 'double width'.

Two types of natural subsoil were visible after the removal of 0.28m of plough-soil. The first 11m of the northern end of Trench 12 consisted of river gravels (4010), whereas over the remainder of the trench the subsoil was a yellow/brown sand with silt (4011). A sondage, 5m by 2m, tested the alluvial sub-soil (4011), which was seen to measure approximately 0.70m in depth.

In total, 16 sherds of pottery, all fairly small in size and in an abraded condition, came from four contexts in Trench 12. Deposits in Trench 12 consisted of individual features, cutting the natural gravel (4010), which were distinguished by their fine, light brown, silty fills. No features cutting the alluvium (4011) were visible in the southern end of the trench.

At the northern end of Trench 12 was a possible pit (4008, unexcavated). This was evident in plan as a light brown silt, c1.35m across and obscured by the northern baulk. To the south of 4008 was a shallow, circular feature (F403), c0.64m in width. Measuring c0.12m deep, the light brown silt fill (4004), contained patches of yellow/brown clay, and fragments of Black Burnished Ware and Samian pottery.

To the west, two possible post-holes (4006 and 4007, unexcavated) measured 0.28m and 0.25m in diameter. To the south, was an irregularly-shaped feature (F402), approximately 0.81m in width and 0.11m in depth. The nature of this feature (F402) suggests that it is probably natural in origin. Further to the south, approximately 4m from the northern end of Trench 12, was a small circular feature (F401), approximately 0.55m in width and 0.14m deep. The dark orange/brown sandy silt fill (4002) contained sherds of Samian pottery.

Located approximately 10m from the northern end of Trench 12 was a large ovoid feature (F404), measuring 2.25m in length and 0.65m in width and aligned northwest-southeast. With a V-shaped profile, it was backfilled with a single, medium brown, sandy fill (4005) measuring 0.30m in depth. To the east was a similar feature (F405), orientated northeast-southwest. Approximately 1.5m in length and 0.66 m in width, this feature had a single fill of orange silt with sand (4009), to a depth of 0.27m. No finds were recovered from either feature.

No evidence of the geophysical anomaly B1 was visible in Trench 12, despite re-machining and hand cleaning the surface of the natural in both areas (4010 and 4011) where the anomaly was believed to be located.

## **The Finds** (by L. Bevan)

### Prehistoric Flint

Four items of prehistoric flintwork were recorded: three cores and a waste flake. One of the cores was a blade core of possible Mesolithic date (Trench 10). The remainder came from the ploughsoil in Trench 3.

### Roman Pottery

Assessment of the Roman pottery discussed below is based upon a previously-analysed large assemblage of over 20,000 sherds from the nearby New Cemetery, Rocester (Leary forthcoming) and on manuscript assessment of pottery recovered during the first stage of evaluation at Orton's Pasture (Cutler 1992). Here pottery from both phases of evaluation will be discussed as a single assemblage.

A total of 1098 sherds of Roman pottery was recovered. A rapid preliminary scan has identified the following amounts of various types of pottery within the assemblage:

Black Burnished Ware: 199  
Derbyshire Ware: 79  
Samian: 89  
Colour Coats: 36  
Amphorae: 107  
Mortaria: 28  
Miscellaneous Other Coarsewares: 560

Total: 1098

Miscellaneous coarse pottery accounts for over half of the total assemblage (560 sherds), the majority of which is represented by grey wares (297 sherds), followed by roughly equal amounts of sandy wares (134 sherds) and white wares (129 sherds). Several different fabrics are present in the coarse pottery assemblage, characterised by varying amounts of sand, quartz and other inclusions, but for the purposes of this evaluation they are treated as a miscellaneous group. Many of the grey wares probably originated from the local kilns at Little Chester where it appears that production started with the intention to supply the fort at Strutts Park during the First Century.

A distinctive and diagnostic coarseware was Derbyshire Ware, characterised by a surface reminiscent of 'petrified gooseshell' (Kay 1962). This type of pottery, traded widely around the north Midlands and becoming ubiquitous north of the Trent from about AD 140 onwards (Kay 1962), is present on the site in some quantity.

Quantities of other diagnostic wares were found, such as Samian, Black Burnished Ware, amphorae and colour coated wares, the latter category including fragments from ?Nene Valley slip-decorated scale and 'rough-cast' beakers. Other colour coats are of sandy coarse fabrics with cream slip, five of which are from one vessel, a tazza with a 'pie-frilled' shoulder which was recovered from a ditch in Trench 11 (Feature 300, Context 3012). Another tazza, in a light grey micaceous fabric, was

recovered from Trench 4 (Feature 4, context 1006). This vessel was unusual in having both a 'pie-frilled' shoulder and rim. The tazza is a late Iron Age form, dating to the First Century, which continues into the Roman Period.

Two fragments from a wine strainer in a sandy, local fabric were recovered from Trench 9 (5001). A similar vessel from the New Cemetery site has been attributed to the work of potters from the continent or other Romano-British military kilns (Leary forthcoming, 44, No. 57). Another unusual item was half of a small, open lamp in a fine grey fabric which came from the upper fill of a refuse pit in Trench 11 (Feature 303, Context 3002). This pit yielded the largest assemblage of Roman pottery on the site (198 sherds), and also the best-preserved in terms of sherd size and 'fresh' appearance. Also in this pit were two pins from copper alloy bow brooches and two fragments of blue-green Roman glass.

Another pit (Feature 302) has yielded 58 sherds, predominantly coarsewares, including a sherd from a distinctive 'hammerhead' mortaria from Mancetter, a form post-dating AD 200. These sherds were generally individually smaller and more abraded than those from the other pit in Trench 11, suggesting that they had been in a more worn condition prior to discard.

Despite the presence of early forms, such as the tazzas discussed above, a generally late-First/early-Second century A.D. date is proposed for the overall assemblage at Ortons Pasture.

Closely datable Roman pottery from a ditch or gully (F7) in Trench 2 includes an imitation Gallo-Belgic bowl, a common form during the later First Century, and a Hofheim flagon neck with a date range from the mid-First to late Second centuries.

The main focus of activity as suggested by the presence of significant quantities of pottery in features appears to have been Trench 12, with average amounts of 50 sherds coming from Trenches 2, 3 and 4 on the eastern side of the site and 117 sherds from Trench 1 to the north-east. While Trenches 9, 10, and 12 to the west of the site produced few pottery sherds or features, datable pottery forms support a similarly late-First/early-Second century date for activity here.

The presence of unusual, specialised wares, such as the wine strainer (Trench 9) and the greyware lamp (Trench 11), indicates the consumption of expensive continental imports such as wine and oil, confirmed by the high incidence of amphorae fragments on the site, 26 of which occurred in the same feature as the lamp (Feature 303) in Trench 11.

The assemblage is therefore of significance both for its demonstrated contemporaneity with Phase 2 military activity on the New Cemetery site, and because of the range of vessel types represented.

#### Roman Metalwork

One 'dolphin' brooch came from Trench 1 (1003). The remaining eleven copper alloy items recovered came from Trench 11. Ten came from the pit F303. These items comprised one dome-headed stud (3002), three parts from bow brooches and six plate fragments (3007). One copper alloy nail came from another pit (F300).

Iron objects consisted of one possible knife blade and an item of door furniture, both very corroded, from Trench 10 (F202). Quantities of nails were found in Trenches 1, 2, 9 and 11.

Quantities of ironworking slag were also found on the site, concentrated in Trenches 1 and 2.

#### Post-Medieval Pottery

A small quantity of Post-Medieval pottery was recovered, for which no further action is considered necessary.

#### Environmental Evidence

##### Animal Bone

A small quantity of animal bone, in a good state of preservation, was recovered from the trenches closest to Mill Street. It is worth noting that only a few scraps of bone were recovered from the partial excavation of the pits in Trench 12.

##### Charred Plant Remains

The initial processing of soil samples from the site confirms that charred plant material is present in a large number of the contexts, and that any subsequent work here should involve a full sampling strategy to recover and study this material, particularly given the significance of the soon-to-be-published environmental data from the nearby New Cemetery site.

#### DISCUSSION AND INTERPRETATION

The evaluation process has demonstrated that within the proposed zone of development there is a considerable archaeological resource. The evaluation trenches have shown that the south-eastern part of the area has in the past been subject to flooding from the River Dove with a 0.70m depth of alluvium being recorded above the natural gravel in Trench 6. While such a depth of alluvium may mask archaeological features and deposits, and the presence of the alluvium as far north as Trenches 4, 5 and 12 may help to explain the loss of definition of features on the geophysical plot here, it is more likely that Roman activity in particular was restricted to the higher ground in the north of Orton's Pasture, though in Trench 4 Features 2 and 4 could be seen to be cut through the alluvial deposit. It would seem that activity to the south of east-west enclosure ditch F500/F202 (anomaly A8) is in the form of more isolated and more widely spaced features than to the north of the ditch.

Ploughing would appear to have disturbed, but not destroyed, archaeological stratigraphy in the north of the development zone, with considerable quantities of Roman pottery being recovered from the plough-soil in Trenches 1 (110 sherds), 2 (144 sherds) and 3 (265 sherds) but with c.0.30m of deposits still surviving *in situ* in Trench 1. The lack of finds in the plough-soil over Trenches 4, 5, 11 and 12 in contrast with the quantities of material recovered from the back-fills of features in those trenches, suggests little recent denudation here by the plough.

The complexity of the archaeological features in Trenches 1 and 2 in particular meant that there was little time to do other than record them in plan and to note that there is obviously more than one phase of activity represented here. Only in Trenches 2-4 and 9-11 could a concordance be made between features exposed in plan and those reflected as anomalies on the geophysical survey plot.



While the evaluation has thrown up more questions than answers, the combined evidence suggests that here in Orton's Pasture are two phases of Roman enclosure which pottery would indicate to be broadly contemporary with the latest Roman military activity to the north of Mill Lane, that is Phases 2A-2C on the New Cemetery site. The presence of albeit small quantities of the most diagnostic local coarse ware, Derbyshire Ware (produced from the early Antonine period) and of (?)Nene Valley colour-coated beakers, suggests that one phase of this activity belongs to the late-Second Century and the time of the abandonment of the Phase 2 fort at Rocester (New Cemetery Site phasing). This obviously has great significance as Roman activity at Orton's Pasture may represent an annexe to this fort, or be part of an associated *vicus*. It is difficult to understand at present the nature of the activity encountered to the south of the military or *vicus* enclosure, save that it would appear to be contemporary but functionally distinct. The only excavation previously undertaken close to the present site at Orton's Pasture was located some 60m to the west of the western field boundary (see Bell 1986, Fig.2. Trench 1); here, three phases of Roman activity were identified, spanning the late-First/early-Second to Fourth Century. Therefore it would appear that extensive Roman remains survive over the northern part of the development area, covering an area of at least 4,000 square metres. Evaluation suggests that the south-eastern part of the development zone, having been lower lying and prone to flooding from the River Dove, is free of Roman features. The southern and western extent of Roman activity has now been gauged. Ditches and gullies suggest the presence of enclosures while the isolated trench F5 in Trial Trench 5 may be a foundation trench for a stone building, though a less glamorous explanation may be found for this otherwise isolated feature, in its being the backfilled trench for modern services. Numbers of isolated features, mainly pits and perhaps some structures, lie outside the enclosures, to the south.

#### IMPLICATIONS and RECOMMENDATIONS

The presence of an extensive archaeological site, directly under the 0.21 - 0.47m deep plough-soil of Orton's Pasture, and covering a large part of the northern development zone has considerable implications for the proposed development. Though the area in question lies outside the zone protected as a Scheduled Ancient Monument, the site identified by the evaluation would appear to be of equal importance; indeed, it has the potential to tell us a great deal about the history of Roman Rocester and to supplement the body of material already collected from the village between 1961 and 1987.

No specific recommendations about individual areas of the proposed development will here be made; these will be the subject of a separate document. However, in the north of Orton's Pasture, with archaeological deposits so close to the surface and spread over such a large area, it is difficult to see how any of the planned elements of the development, whether houses, gardens, car-parks or access roads, could fail to disturb archaeology here. While consideration should always be given to preserving archaeology *in situ* by the adoption of design options generally encompassing methods such as the levelling-up of areas rather than their levelling-down and the use of raft building foundations rather than wall trenches, these options may not here be practical or, indeed, sufficient to protect the remains.

The second option would be to 'neutralise' the archaeology by excavating ahead of the development, or in those areas most threatened by specific parts of the development, and to record the site within a pre-arranged research framework. This second option would certainly add greatly to our knowledge of Roman Rocester and, more broadly, to that of Roman Britain, but it would, of course, hold financial implications for the development scheme.

It is recommended that consideration be given to both options - preservation of archaeology *in situ* and preservation by record of excavation - or to a combination of both, and that consultation with the archaeological officers of the County Council be sought at the earliest possible opportunity.

#### ACKNOWLEDGEMENTS

The evaluation was undertaken under the general supervision of Iain Ferris. The fieldwalking was carried out by John Dalton and Russell Heath; the geophysical surveys by Russell Heath and Alex Jones with Martin Lightfoot and Mike Cooper (1990) and Richard Tabor with Kirsty Nichol (1995); and the excavation principally by Laurence Jones, Steve Litherland, Ed Dickinson, Russell Heath and Iain Ferris (1990) and by Richard Cuttler with Ed Newton, Bob Burrows and Christine Winter (1995). Finds processing and reporting was by Lynne Bevan.

The report was typed by Ann Humphries and produced by Liz Hooper. Figures were prepared by Mark Breedon.

Thanks to Staffordshire County Council for the hire of the resistivity meter in 1990.

#### REFERENCES

- Bell, A. 1986, 1964 & 1968 Excavations at Rocester, Staffordshire by Fiona Sturdy, in *Staffordshire Archaeological Studies No.3*, 20-51.
- Clark, A.J. 1990 *Seeing Beneath the Soil: Prospecting Method in Archaeology*.
- Esmonde Cleary, A.S. and Ferris, I.M. Excavations at the New Cemetery Site, Rocester 1985-1987 (Forthcoming).  
Excavations at Dove First School, Rocester 1985-1986 (Forthcoming).  
Excavations at Mill Field, Rocester 1986 (Forthcoming).
- Ferris, I.M. 1990 *An Archaeological Evaluation at Abbey Farm, Rocester* BUFAU.
- Tite, M.S. 1972 *Methods of Physical Examination in Archaeology*.
- Webster, G. 1962 Excavations on the Roman Site at Rocester, Staffordshire, 1961. *North Staffs. Journal of Field Studies* 2, 37-52.

#### APPENDIX

##### The Geophysical Survey

###### Principles

A gradiometer is a precision instrument that measures changes in magnetic field intensity caused by man's activities, or by geological processes. Features such as hearths or kilns acquire a permanent, relatively strong magnetism, caused by the conversion of weakly magnetic compounds to strongly magnetic oxides (Clark

1990), and such features may be readily identifiable as magnetic anomalies. The instrument may also be employed to locate archaeological features such as ditches or pits, detected by measurement of slighter, localised variations in magnetic field intensity.

Resistivity surveying involves applying a small current into the ground via metal electrodes, and measurement of the soil's resistance to the flow of electricity (Tite 1972). Soils vary considerably in resistivity, depending on their content and wetness, thus detailed measurement of variation in ground resistance from place to place can detect quite subtle changes (anomalies) in the near sub-surface which may be due to natural processes, or manmade features such as walls, ditches and pits. Water-retentive materials, such as clay, are of notably low resistivity, whilst stone walls have a higher resistivity, due to their low water content which impedes the flow of electricity. The technique is best suited to the location of stone features or buildings, but cannot distinguish between differing soils of similar resistivity.

#### Survey methods and equipment

A total area of 10,400 square metres was surveyed with a gradiometer, representing a total of approximately 80% of the site area. Individual survey squares measured 20m by 20m. Area 1, measuring 220m by 20m, was located along the eastern fence-line. Area 2 was located south of the gardens forming part of the northern site boundary and Area 3, measuring 55m by 20m, was in the south of the site. Area 4, overlapping with Areas 1 and 2, was c60m by 60m and was positioned over what may potentially be the most heavily disturbed area in the proposed development. The resistivity survey was positioned to examine the northern area of the site, demonstrated by fieldwalking to have the greatest archaeological potential (Squares AD and P). Gradiometer and resistivity surveys followed a common grid: readings were recorded at 1m intervals, along survey lines spaced 1m apart.

The gradiometer survey was carried out using a Geoscan FM 18 Fluxgate Gradiometer, with built-in data logger. Before the start of the survey, the two instrument directional sensors (N-S and E-W) were adjusted to ensure accurate alignment of the gradiometer in relation to the earth's magnetic field, and their equal sensitivity to magnetic anomalies. The instrument was zeroed and balanced after completion of each square, and zero drift was logged. Data were recorded to a resolution of plus or minus 0.5 nano Tesla (nT). The recorded data were transferred from the gradiometer and stored-to-disk on a Toshiba T1000 lap-top computer for post-survey processing. The 1990 survey utilised the package **Geoplot 1** and the 1995 survey used **Geoplot 2**.

The resistivity survey employed a Geoscan RM4 Resistance Meter, in conjunction with a Twin Electrode probe configuration (current electrode and potential electrode spaced 0.5m apart). A second pair of current and potential electrodes was maintained at a constant distance of 15m from the surveyed square to ensure a stable value of background resistance. A 1mA current was injected into the ground via the two current electrodes, the potential difference, or ground resistivity, being sampled across the second pair. Readings of resistivity were recorded in the 2000 Ohm range, using the 'urban' filter setting. Data were recorded by hand to the nearest integer, and manually entered onto computer for post-survey processing.

# ROCESTER Orton's Pasture

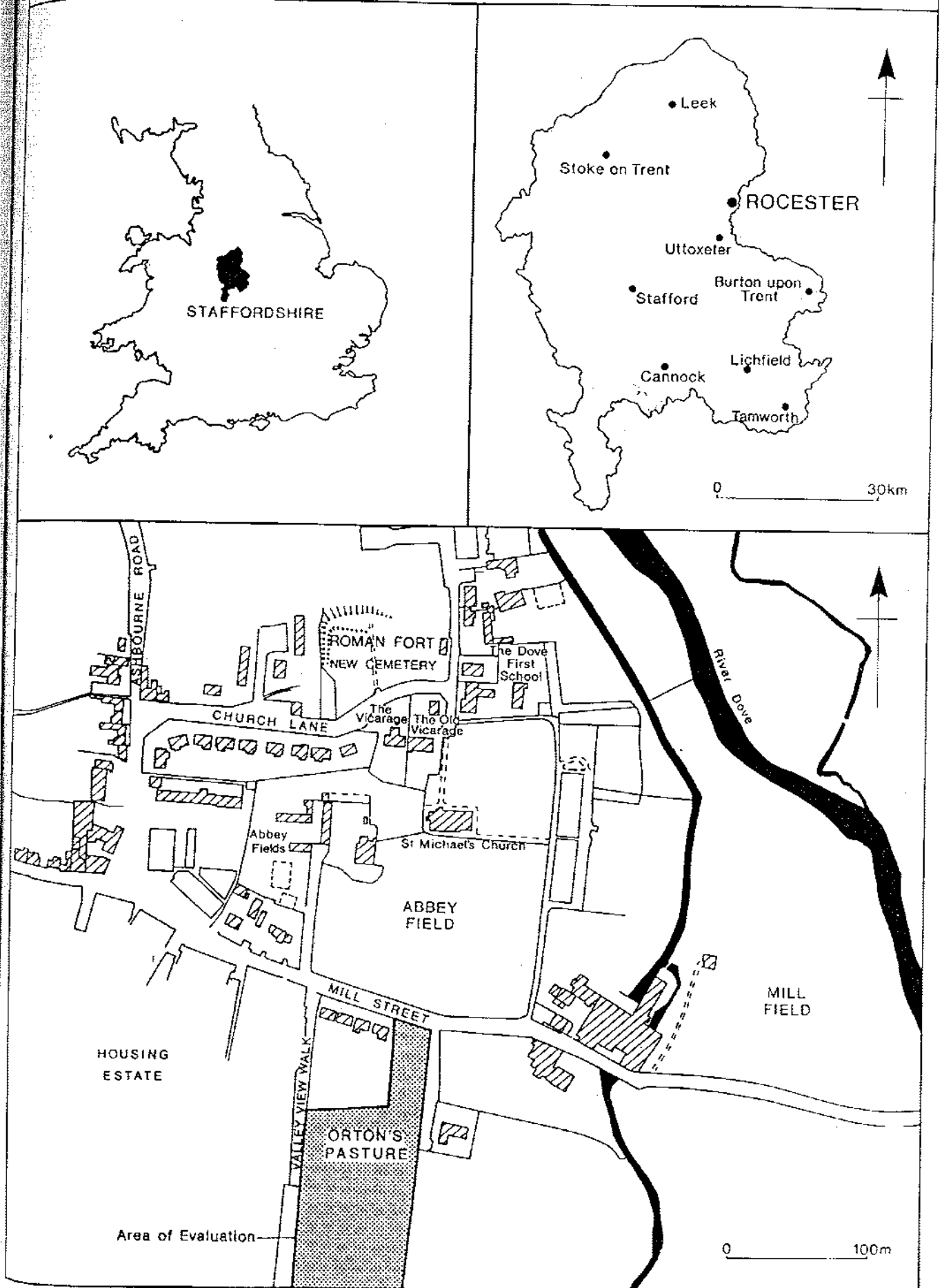


Figure 1.

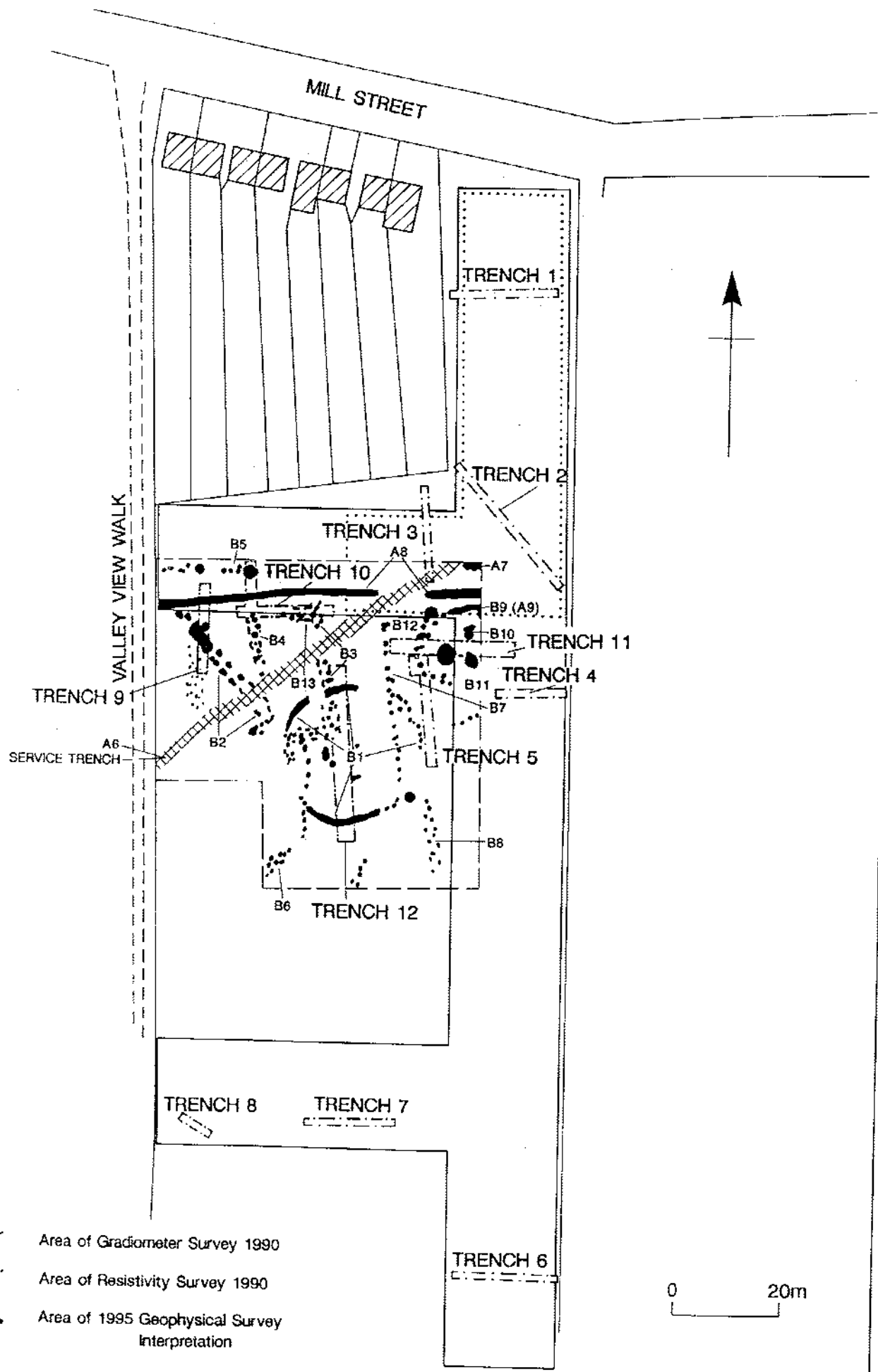


Fig. 6

ROCESTER 1990  
Gradiometer Survey

Plot

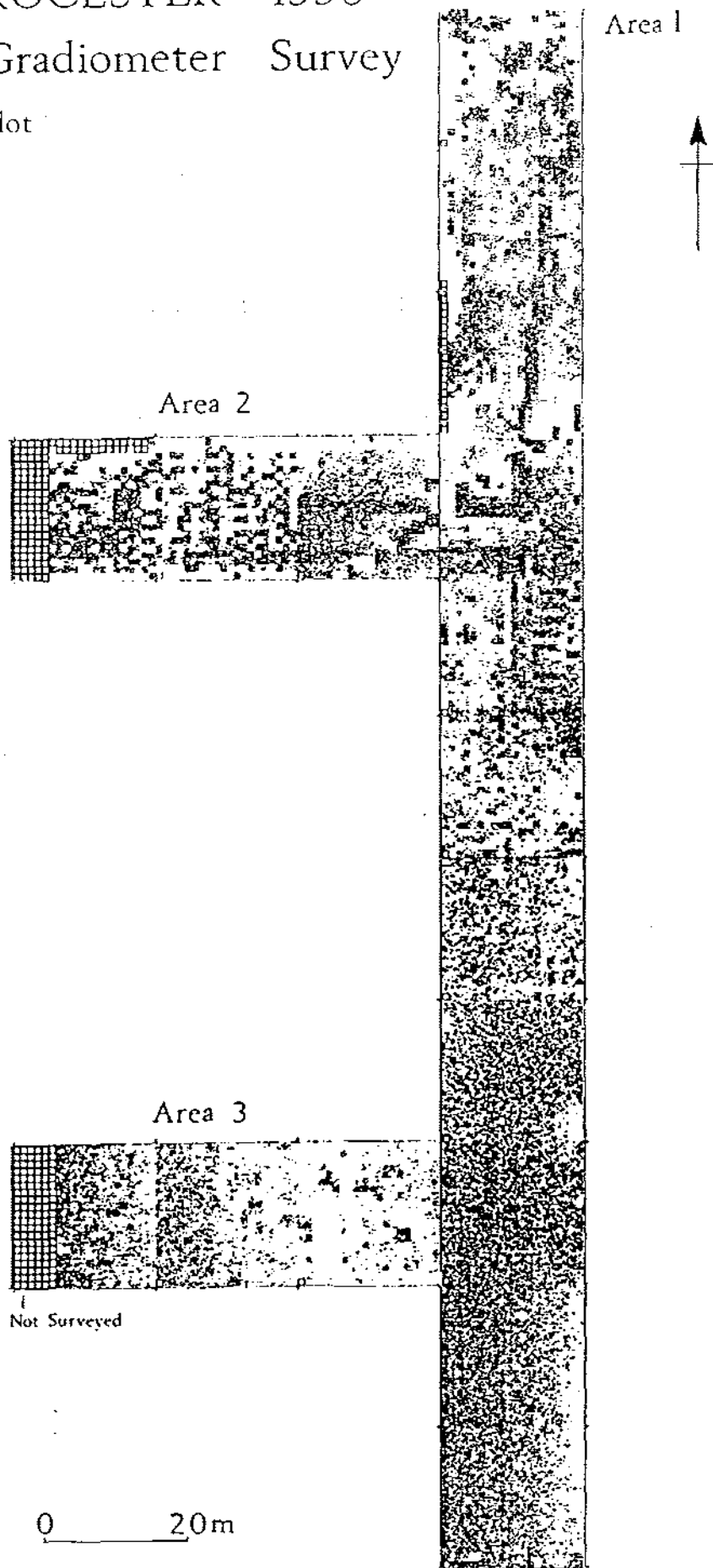


Figure 3

ROCESTER 1990  
Gradiometer Survey

Interpretation

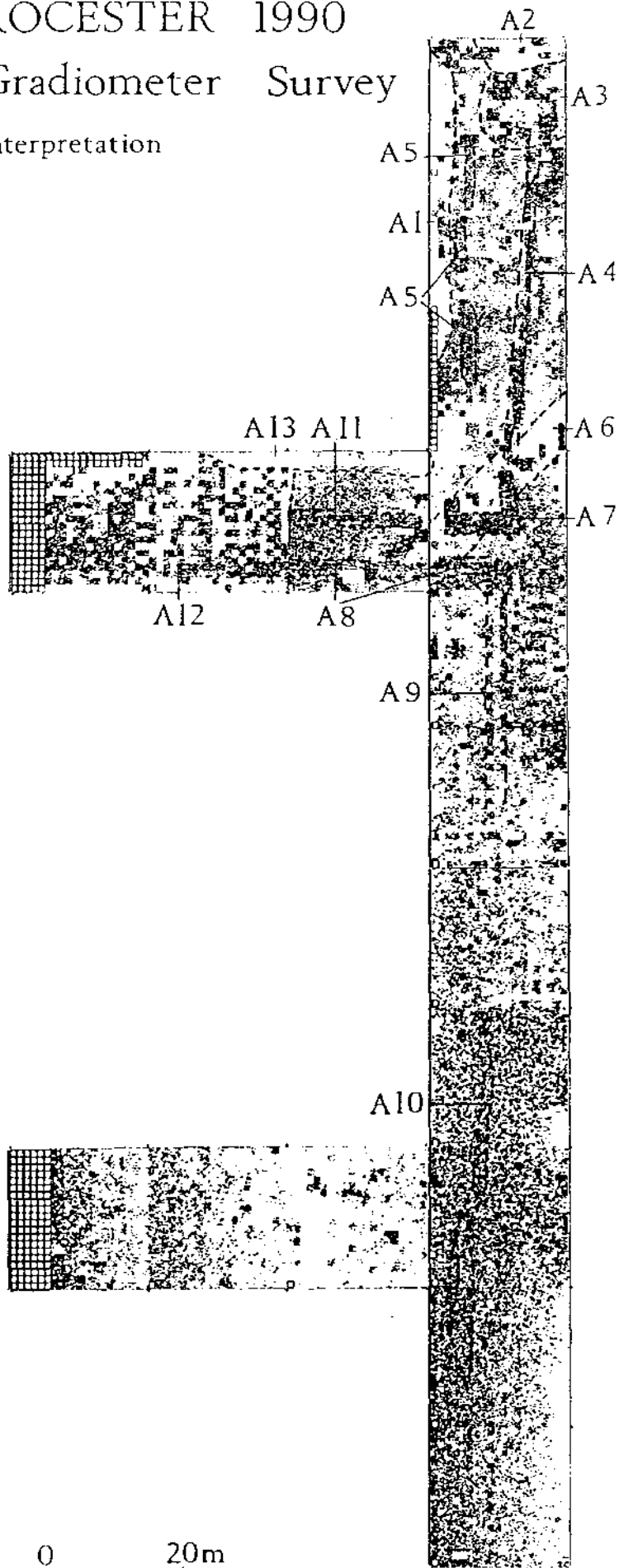


Figure 4

# ROCESTER 1990 Resistivity Survey

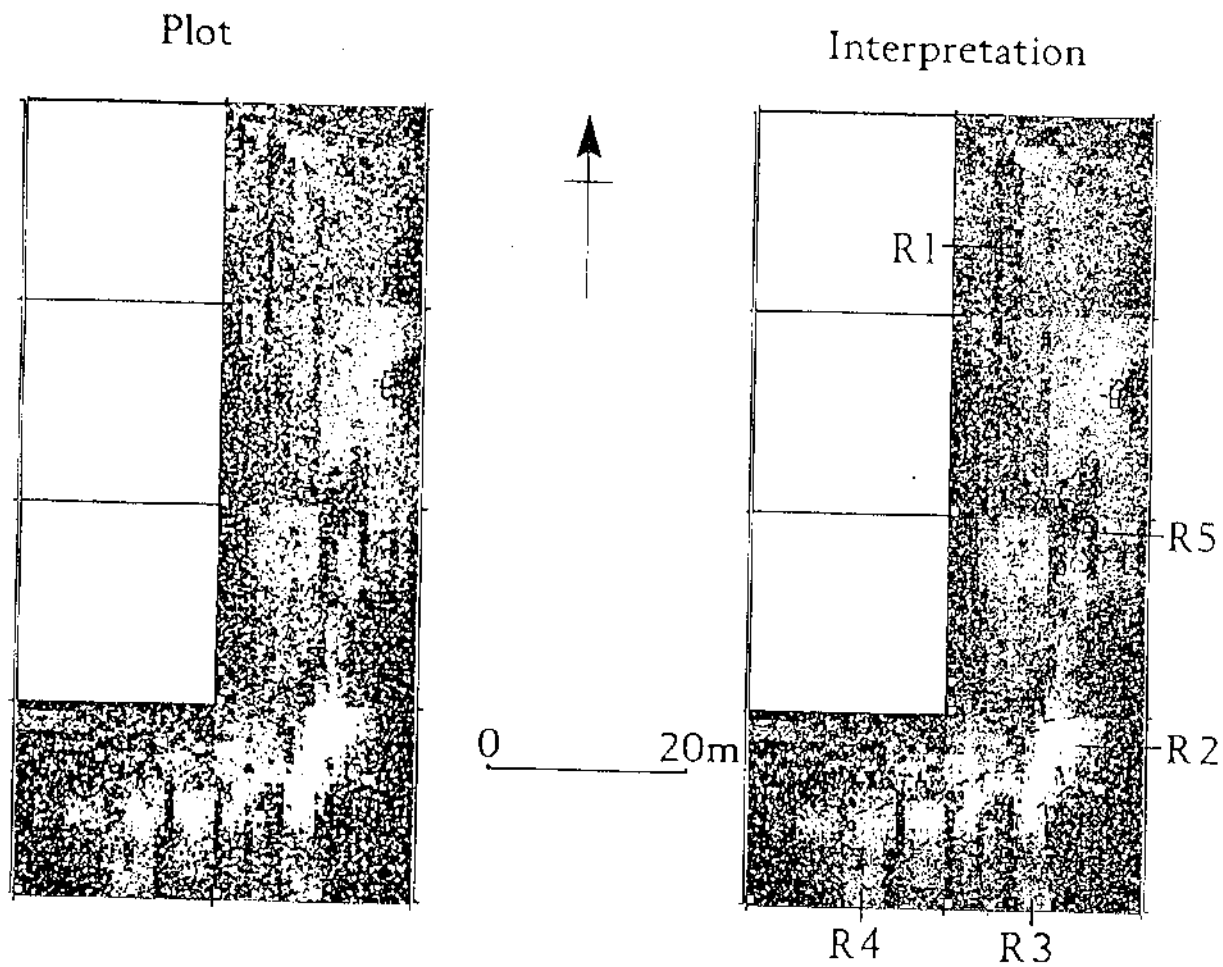


Figure 5



# ROCESTER Orton's Pasture

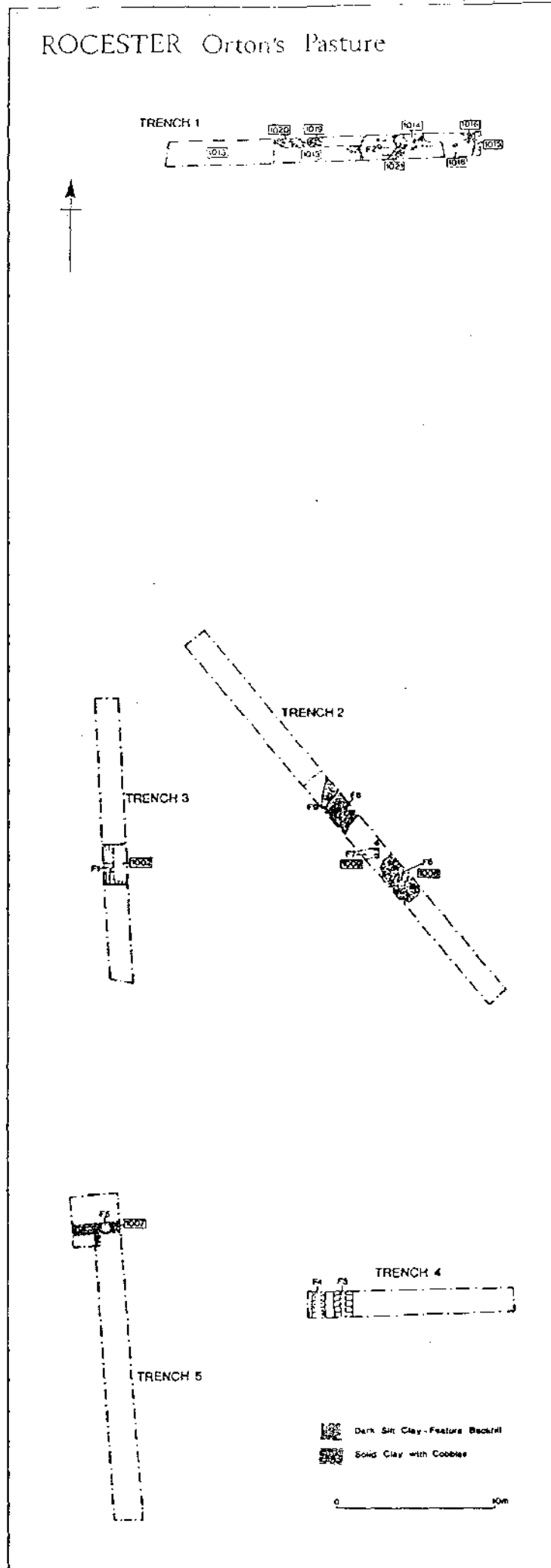


Figure 6



VALLEY VIEW WALK

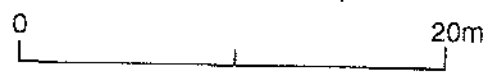
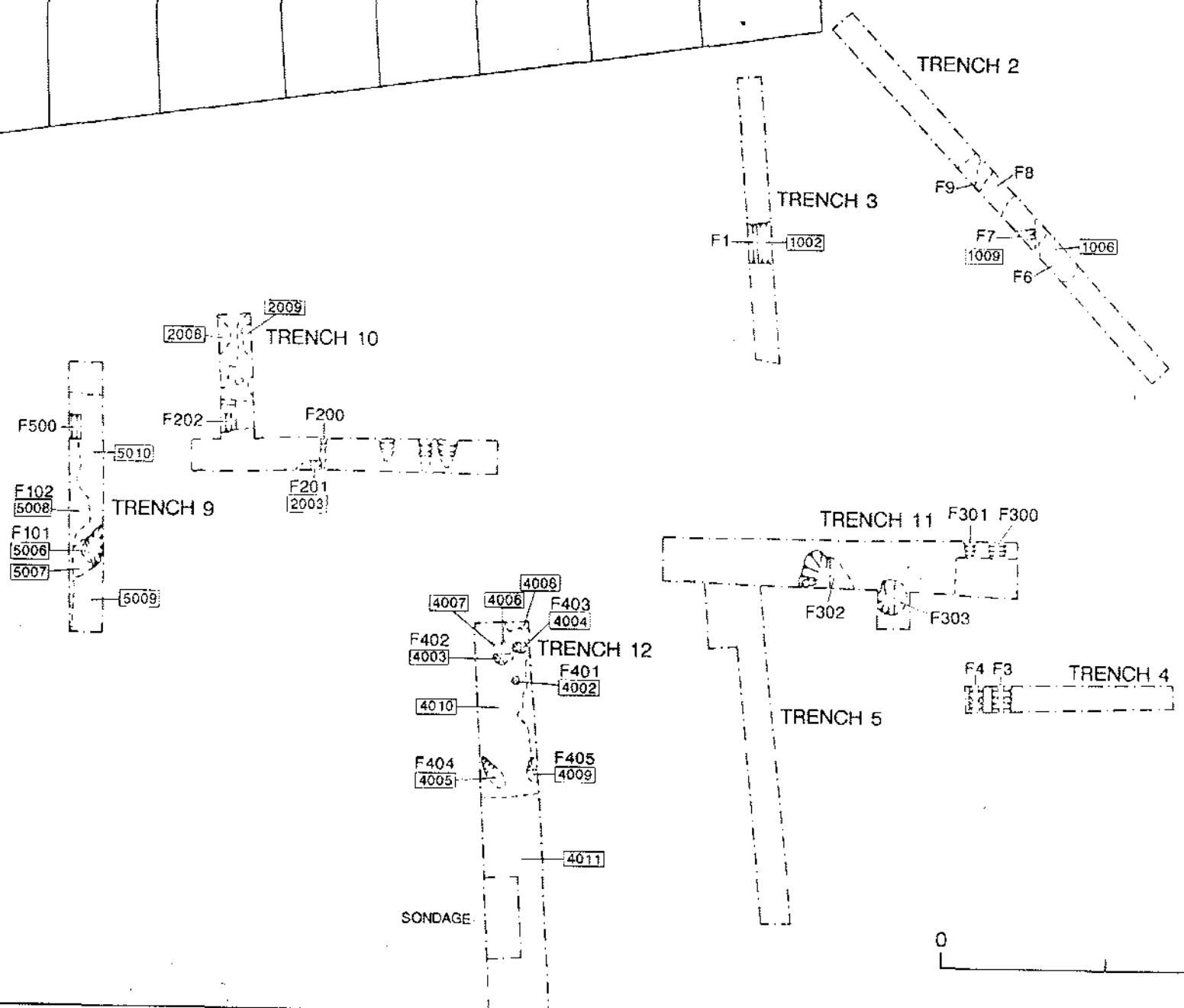


Figure 7.

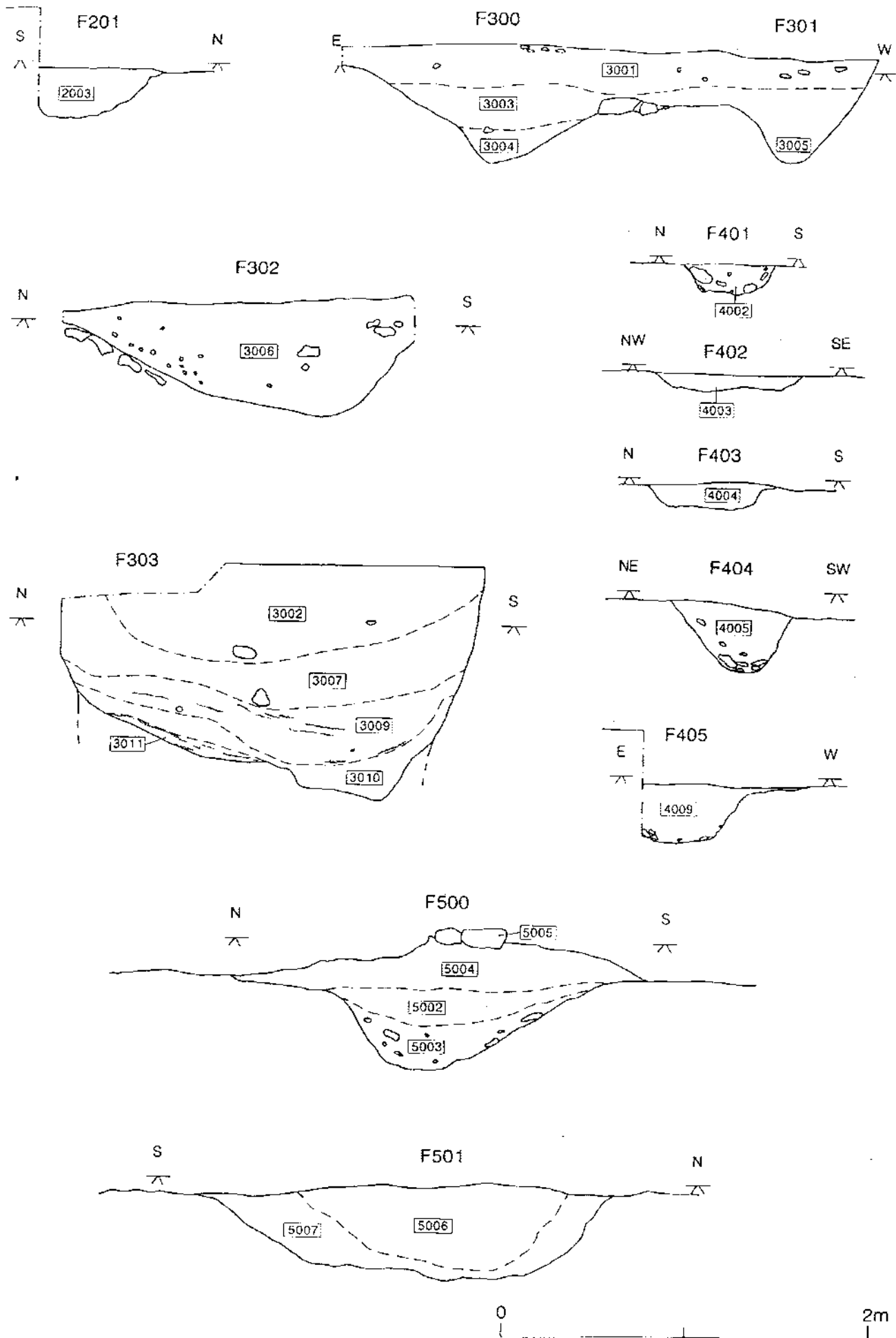


Figure 8