An Archaeological Evaluation and Excavation on land at Rectory Lane, Appleby Magna, Leicestershire (SK 600 234)

Planning Application No. 97/0126/PT

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For

Loangain Ltd

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Summary

Archaeological excavation on land at Rectory Lane, Appleby Magna, Leicestershire (SK 308 102) was undertaken by University of Leicester Archaeological Services in advance of development by JWA Architects and Loangain Ltd.. Excavations indicated the presence of a small Romano-British farmstead of 4th century date, with strong evidence for agricultural activities, such as corn processing, being carried out on site, within insubstantial structures, possibly representing the ancillary buildings of a main farm house.

1 Introduction

1.1 Loangain Ltd, in conjunction with JWA Architects, propose to build a new motel and facilities on land near J11 of the M42, Rectory Lane, Appleby Magna, Leicestershire, (SK 308 102).

1.2 In accordance with the Department of the Environment Planning Policy Guideline No. 16 (PPG 16 Archaeology and Planning), an archaeological desk based assessment was undertaken by the University of Leicester Archaeological Services (ULAS Report No. 99/23), which concluded that the archaeological potential of the area was unknown, since little archaeological survey work had been carried out in the parish.
As the site lies beyond the historic core of the village of Appleby Magna and formed part of the open field system at this time, it was suggested that any archaeological remains present would be likely to predate the medieval period and be well preserved close to the surface, as the site has existed as undisturbed pasture land in subsequent times.

1.3 As part of an archaeological condition of planning permission a scheme of archaeological survey work was undertaken, prior to the development of the area.

1.4 Initially, geophysical survey of the development area was undertaken by ULAS, on behalf of JWA Architects Ltd. The results of the survey proved inconclusive as to the presence/absence of archaeological deposits. Details and results of the geophysical survey are contained in ULAS Report No. 99/142.

1.5 Results of the subsequent archaeological evaluation, in the form of trial trenching, however, indicated the presence of Romano-British deposits within the development area, including possibly structural remains. In view of the evaluation results in relation to the 'footprint' of the development, two areas, each measuring 30m by 30m, were opened up for archaeological excavation, located to target the archaeological deposits observed within trenches 4 and 8 of the evaluation.

1.6 The archaeological evaluation and excavation of the development area were commissioned from (ULAS) and were directed by Sophie Clarke.

2 Location

The site lies approximately 28km west of Leicester in Appleby Magna parish in the district of north west Leicestershire (SK 308 102). It consists of an area of *c.*2.7 ha, within which it is proposed to construct an hotel and ancillary facilities. The site is located outside the village of Appleby Magna, on fairly flat land, at a height of *c.*98m OD.

3 Geology

The Ordnance Survey Geological Survey of Great Britain Sheet 155 indicates that the underlying geology consists of sandstone with bands of Mercia Mudstone.

4 Archaeological and Historical Background

4.1 *Archaeological background*

No known archaeological sites were listed in the SMR for the development area itself. The SMR lists four sites of medieval origin, existing within the centre of the village of Appleby Magna.

30NWS SAM17061 (SK 316 098) Moat House, Appleby Magna. Medieval manorial complex, moat and fishponds earthworks, dovecote and 15th century manor house buildings.

30NWT (SK 315 098) Church of St. Michael, Appleby Magna. Dated to 14th century.

30NWZ (SK 316 097) Medieval village of Appleby Magna.

30NWJ (SK 314 098) Medieval/ post-medieval village earthworks.

4.2 *Historical Background*

Appleby is entered under Derbyshire in the Domesday Book. Land was owned there by Countess Godeva and Henry de Ferieres. Walker's Hall was built to replace the Moat House as the residence of the Lord of the Manor, in the centre of the village.
The manor of Appleby Magna was purchased by Sir Wolstan Dixie in 1604 and given to the trustees of Market Bosworth School, of which he was the founder.

No Enclosure or Tithe maps include the proposed development area. Ordnance Survey maps show that the area has changed very little between 1882 and the present day. Parts of the field were lost during the widening of the A453 and A444 trunk roads.

5 Aims and Methods

5.1 *The Evaluation*

In accordance with ULAS (1999) *Design Specification for Archaeological Work,* fourteen trial trenches, measuring 30m by 1.6m, were excavated, located within areas where the development would be most destructive to the archaeology. These trenches represented a 2% sample of the development area.

A JCB 3CX, fitted with a 1.6m wide ditching bucket, was used to remove topsoil and subsoil, where present, until archaeological remains or the natural geological substratum was reached. This was carried out under archaeological supervision. All machined layers were recorded and the spoil was examined for finds.

Trenches were examined by hand cleaning. The levels above Ordnance Datum (OD) of all machined layers were recorded along the lengths of the trenches. All deposits of potentially archaeological significance were investigated and recorded. The work followed the Institute of Field Archaeologists' (IFA) *Standard and Guidance for Archaeological Evaluation.*

The locations of the trenches were recorded using a Topcon GTS-212 Electronic Distance Measurer linked to a Psion hand held data logger.

The aims of the archaeological evaluation were:

1) To establish the nature, character and extent of any archaeological deposits within the area to be affected by the proposed development.
2) To establish a date range for any archaeological deposits located.
3) To define the state of preservation of any such deposits, including the potential for environmental data.
4) To assess the local, regional and national importance of any deposits.

5.2 *The Excavation*

The results of the evaluation indicated two possible focal points for the archaeological activity observed within the evaluation trenches. Area 1, measuring 30m long by 30m wide, was positioned to locate the extent of the archaeological deposits observed within Trenches 4 and 12 of the evaluation. Area 2, also measuring 30m long by 30m wide, was positioned to locate the extent of features observed within Trenches 8 and 10.

Each area was excavated using two JCB 3CX mechanical diggers; each equipped with a 1.6m wide toothless ditching bucket. The topsoil and subsoil, where present, were removed in spits, under constant archaeological supervision until either archaeological features, or the natural geological substratum were revealed.

Each excavation area was subject to partial hand cleaning, in order to clearly define the archaeological remains present. All excavated archaeological deposits were recorded using the standard ULAS conventions. The work followed the Institute of

Field Archaeologists' (IFA) *Standard and Guidance for Archaeological Excavation* and ULAS (1999) *Design Specification for Archaeological Excavation and Archaeological Attendance during Groundworks.*

Each area was located using a Topcon GTS Electronic Distance Measurer linked to a hand held data logger. The data were processed using Intsurv2 Survey software. Final digital drawings were produced using TurboCAD.

The aims of the excavation, as set out in the *Design Specification for Archaeological Excavation and Archaeological Attendance During Groundworks, Rectory Lane, Appleby Magna, Leicestershire (SK 308 102)* (ULAS 1999) were:

1) To ascertain the function, date and chronology of the archaeological deposits present.

2) To locate and record any structural elements associated with these deposits.

3) To recover environmental data likely to provide information on the economy and local environment of the settlement.

6 Results of the Evaluation

Fourteen trial trenches were excavated within the development area. Each trench was 1.6m wide. The natural substratum in all trenches was Mercia Mudstone.
Throughout the report archaeological features have been referred to using numbers:

[-] has been used for cut numbers, (-) has been used for context numbers

6.1 *Trench 1*

Trench 1 Details
Context Numbers: 1, 2
Length: 33m
Width: 1.6m
Average Depth: 0.35m
Surface level (m OD): 99.89
Base of Trench (m OD): 99. 54

Trench 1 was located in the north of the development area, aligned east/west, on the line of the proposed access road for the site. The natural subsoil was reached at a depth of *c.*35m and consisted of red sandy clay.

Three furrows, consisting of mid- orange brown, sandy clay, found to contain post-medieval pottery, were recorded in Trench 1. These furrows measured approximately 3m wide and were regularly spaced, aligned north-west/south-east.

At the western end of the trench, a linear feature was observed to cut through the geological substratum, aligned north-east/south-west and running underneath the

baulk at either end. A section was excavated through the linear feature, showing Cut [2] to be a narrow gully, 0.95m wide and 0.32m deep, with a flattish base. Its fill (context (1)) consisted of compact, pale, orange brown sandy clay, containing medium sized pebbles. No dating evidence was found.
Fill (1) was identical to context (15), the fill of a linear feature [16], observed on the same alignment as [2] in Trench 11. A section excavated through (15) showed the gully [16] to have a similar profile to gully [2] and it is probable that both profiles pertain to the same feature, a linear gully running across the area.

6.2 *Trench 2*

Trench 2 Details
Context Numbers: None
Length: 30m
Width: 1.6m
Average Depth: 0.32m
Surface level (m OD): 99.97
Base of Trench (m OD): 99.65

Trench 2 was situated to the south west of Trench 1, aligned north-north-west/south-south-east, along the line of the proposed access road.

One plough furrow, consisting of a mid orange brown, sandy clay, found to contain post- medieval pottery, was recorded in Trench 2. The furrow was approximately 7m wide and it was aligned north-west/south-east.

No deposits of archaeological significance were observed in this trench.

6.3 Trench 3

Trench 3 Details
Context Numbers: None
Length: 30m
Width: 1.6m
Average Depth: 0.35m
Surface level (m OD): 100.30
Base of Trench (m OD): 99.95

Trench 3 was located to the south of Trench 2, along the line of the proposed access road, on a south-west/north-east alignment.
At approximately 15.3m from the south-west end of the trench, was a linear area of disturbed ground, measuring 0.7m in width. This contained fragments of brick and sherds of post-medieval pottery and was found to correspond with the line of an earlier field boundary, which appears on the O.S. map of 1882.

6.4 *Trench 4*

Trench 4 Details
Context Numbers: (3) (4) (9) (10) (11)
Length: 30m
Width: 1.6m
Average Depth: 0.32m
Surface level (m OD): 100.90
Base of Trench (m OD): 100.58

Trench 4 was aligned north-north-west/south-south-east and located within the area proposed for the footprint of the main hotel building.

Four plough furrows were observed to cross the trench at regular intervals, on a north-west/south-east alignment.

At the southern end of the trench, a number of intercutting archaeological features was observed. These features remained unexcavated, partly due to restrictions on time but it was also felt that certain chronological relationships could be better understood in the context of a larger excavated area. Despite this, hand cleaning of the area provided dating evidence for each of the features noted in the trench.

Context (3) was recorded as an area of mid reddish brown sandy clay, containing common medium sized pebbles and producing sherds of Roman pottery. Context (3) had an unknown relationship with Context (10), an irregularly shaped deposit comprising small and medium sized pebbles, pressed into greyish brown, sandy clay. Surface cleaning of Context (10) also produced sherds of Roman pottery.

Context (4) consisted of dark greyish brown, silty clay containing occasional medium sized pebbles and flecks of charcoal. This feature protruded from the north-eastern baulk of the trench and appeared to form part of a linear feature, butt-ending near, or having some unknown relationship with Context (11), the dark reddish brown silty clay fill of a linear feature running beneath the opposite baulk. Surface cleaning of this area produced dating evidence from each feature.

Context (9) appeared as the fill of a post-hole type feature, a subcircular patch of mid greyish brown, silty clay. No finds were produced with which to date this feature.

6.5 *Trench 5*

Trench 5 Details
Context Numbers: None
Length: 33m
Width: 1.6m
Average Depth: 0.35m
Surface level (m OD): 101.00
Base of Trench (m OD): 100.65

Trench 5 was aligned east/west and positioned to target part of the footprint of the hotel building.
No deposits of archaeological significance were observed in this trench.

6.6 Trench 6

Trench 6 Details
Context Numbers: None
Length: 30m
Width: 1.6m
Average Depth: 0.35m
Surface level (m OD):100.10
Base of Trench (m OD): 99.75

Trench 6 was located to the south of Trench 2, aligned north-north-west/south-south-east and positioned to target the footprint of the main hotel building.
A plough furrow measuring approximately 7m in width and found to contain sherds of modern pottery was recorded on a north-west/south-east alignment.
No deposits of archaeological significance were observed in this trench.

6.7 *Trench 7*

Trench 7 Details
Context Numbers: None
Length: 31m
Width: 1.6m
Average Depth: 0.35m
Surface level (m OD): 100.75
Base of Trench (m OD):100.40

Trench 7 was located to target the area of the proposed car park and was aligned east/west.
No deposits of archaeological significance were observed in this trench.

6.8 *Trench 8*

Trench 8 Details
Context Numbers: (5)- (8), (19)- (23)
Length: 30.5m
Width: 1.6m
Average Depth: 0.35m
Surface level (m OD): 100.50
Base of Trench (m OD): 100.15

Trench 8 was aligned north-west/south-east and was positioned along the exit road for the proposed development.

A plough furrow was observed to run along the length of the north-eastern edge of the trench.

(22) was a number assigned to an irregularly shaped area of dark, greyish brown, silty clay. This deposit was partly obscured by the plough furrow. Following the removal of the plough furrow, by hand, it seemed that (22) comprised a linear strip of what appeared to be intercutting post-hole type features.
(5) was a discrete, sub-circular feature, aligned very closely to (22). Excavation of this feature showed [55] to be a shallow, circular, post hole type feature with a rounded bottom. The dark, greyish brown, silty, clay fill (5) contained flecks of charcoal and one sherd of Roman pottery.

(6), (7), (28) and (21) were numbers assigned to find spots within a large, irregularly shaped spread of dark, greyish brown, silty clay. Where the cut for the land drain, contained within the plough furrow, had truncated this deposit, the natural Mercia Mudstone could be seen. No differences between fill types could be distinguished within this spread. The truncation of this archaeological deposit, by the land drain and by the plough furrow, made it difficult to ascertain its true nature and it was left unexcavated until it could be better understood through the excavation of the surrounding area.

(8) was a number assigned to a spot find, consisting of 5 sherds of mortaria, found within the north-eastern baulk section. The JCB was used to excavate a slot perpendicular to the main trench body, in order to locate any archaeological deposit to be associated with find spot (8). Although no such deposit was located, the extra slot revealed the mid greyish brown, sandy, clay fill of what appeared to be the butt-end of a narrow, linear feature (19). No finds were obtained with which to date this feature.

6.9 *Trench 9*

Trench 9 Details
Context Numbers: None
Length: 30.5m
Width: 1.6m
Average Depth: 0.35m
Surface level (m OD): 99.85
Base of Trench (m OD): 99.50

Trench 9 was located to target the proposed balancing pond, and was aligned east/west.
One plough furrow was observed; this measured 5m wide and was aligned north-west/south-east.
No deposits of archaeological significance were recorded in this trench.

6.10 *Trench 10*

Trench 10 Details
Context Numbers: (12) (13) (14)
Length: 14m
Width: 1.6m
Average Depth: 0.35m
Surface level (m OD): 100.30
Base of Trench (m OD): 99.95

Trench 10 was aligned north-west/south-east and was positioned to locate any continuation of the archaeological deposits observed within Trench 8.
(12) (13) and (14) were numbers assigned to find spots within what may turn out to be one large spread of dark, greyish brown, silty clay. This feature was left unexcavated, as it was thought that it could be better understood within the context of a larger excavated area.

6.11 *Trench 11*

Trench 11 Details
Context Numbers: (15) [16]
Length: 10m
Width: 1.6m
Average Depth: 0.31m
Surface level (m OD): 100.70
Base of Trench (m OD): 100.39

Trench 11 was aligned north-west/south-east and positioned to locate a continuation of linear feature [2] that was observed in Trench 1.
At the north-western end of the trench a linear band of pale, orange brown, sandy clay (15) was observed to cut through the natural geology on a north-east/south-west alignment. Context (15) was identical in nature to Context (1), seen in Trench 1. Excavation of (15) showed the profile of [159] to be very similar to the profile of [2]. As these features displayed very similar characteristics in both cut and fill and as they are exactly aligned, it is probable that both features represent a single, linear gully type feature, running north-east/south-west across the development area.
No dating evidence was produced from context (15).

6.12 *Trench 12*

Trench 12 Details
Context Numbers: (17) (18)
Length: 10.9m
Width: 1.6m
Average Depth: 0.35m
Surface level (m OD): 100.60
Base of Trench (m OD): 100.25

Trench 12 was aligned north-west/south-east and was positioned to locate any continuation of the archaeological deposits seen in Trench 4.
A plough furrow, containing a post-medieval land drain, also aligned north-west/south-east truncated the length of the south-western side of the trench.
Towards the north-west end of the trench there was a patch of dark, greyish brown, silty clay (17), which yielded sherds of Roman pottery during machining. The overlying furrow material was removed by hand, but the deposit appeared either to have been truncated by the furrow, or to butt-end. This feature was not excavated at this time, and appeared to be either a large circular pit, or the rounded butt-end of a ditch.

6.13 *Trench 13*

Trench 13 Details
Context Numbers: None
Length: 15m
Width: 1.6m
Average Depth: 0.35m
Surface level (m OD): 101.15
Base of Trench (m OD): 100.80

Trench 13 was aligned north-west/south-east and was positioned to locate any continuation of archaeological deposits seen in Trench 12.
Much of the base of the trench lay obscured by furrow material, from a plough furrow running along the same alignment as the trench, although the undisturbed Mercia Mudstone was visible along the south-western edge of the trench.
No archaeological deposits were located in this trench at the time of evaluation.

6.14 *Trench 14*

Trench 14 Details
Context Numbers: None
Length: 15m
Width: 1.6m
Average Depth: 0.35m
Surface level (m OD): 100.40
Base of Trench (m OD): 100.05

Trench 14 was aligned north-west/south-east and was positioned to locate any continuation to the north-east, of archaeological deposits seen in Trench 4.
Much of the base of the trench remained obscured by furrow material. Natural Mercia Mudstone was observed towards the north-western end of the trench. No archaeological deposits were located in this trench.

7 Discussion

Fourteen trial trenches were excavated within the development area, and of these Trenches 1, 4, 8, 10, 11 and 12 produced evidence of archaeological activity. Medieval ridge and furrow ploughing activity was revealed across the site, aligned roughly north-west/south-east.

Context numbers were given to features prior to excavation, in order to locate pottery finds. The gully (1)[2] that was recorded within trench 1 appears to be aligned roughly north-east/south-west and it is likely that gully (15)[159], located within trench 11, is a continuation of the same feature. Excavation of each context indicated a similar fill of compact, orange brown, sandy clay and showed the gully to be V-shaped, approximately 1.0m wide at the top and 0.32m deep. A slot was dug through each gully segment recorded, but no finds were recovered.
No other features were excavated during the evaluation as it was thought that they would be better understood within the context of a larger area of excavation. All features are discussed later in the text as part of the main excavation discussion.

8 Results of the Excavation

8.1 Based on the findings of the archaeological evaluation, it was decided that two larger areas were to be subject to topsoil stripping in an attempt to locate the extent of the archaeological deposits recorded within evaluation trenches 4, 8, 10 and 12.

Area 1 measured 30 metres square and was positioned in the southern part of the development area, to locate the extent of archaeological deposits recorded within trenches 8 and 10.
Area 2 also measured 30m square and was positioned in the western part of the development area, to locate the extent of archaeological deposits recorded within trenches 4 and 12.

Upon the stripping of the topsoil and the subsoil layers, a clear pattern of plough furrows emerged across each area, with each furrow measuring 2-3m wide and running on a north-west/south-east alignment. The heavy ploughing activity that took place across the site will have resulted in the heavy truncation of the underlying archaeological deposits and therefore accounts for the shallow depth of some of the features encountered.

Area 1

Group 1

A cluster of archaeological deposits was located in the southern part of area 1, possibly representing two relatively contemporary, but discreet episodes of activity. The earliest episode of activity was represented by linear gully [59]. The gully had a flattish base and was aligned north/south, truncated on its southern path by the edge of excavation. To the north, the gully was truncated by a plough furrow, running perpendicular to the gully, and it did not appear on the other side. The fill of the gully, (23), consisted of mid greyish brown, silty clay, containing pebbles and occasional

charcoal flecks. Two sections were excavated through the gully producing, in total, 32 sherds of Roman pottery.

At right angles to gully [59] was a second butt-ending gully, [38]. This gully had an uncertain relationship with [59]. Its fill, (37) had been highly truncated and consisted of mid greyish brown, sandy clay that produced no dating evidence.

Cut into the top of the gully was [6], a large, sub-rectangular feature with a flattish base. The feature measured approximately 4m long by 3m wide, and had been truncated across its width by a clay pipe land drain. The feature was overlain by a plough furrow, which had to be removed by hand, and this may account for its shallow depth, which was no more than 0.1m. Its fill, (7), consisted of dark greyish brown, silty clay, containing pebbles and charcoal flecks, producing a total of 39 sherds of late 4th century Roman pottery. Also found within (7), by metal detector, was a bronze coin (Small find no. 2). The coin depicted the Emperor Magnentius, dating to 350-353 AD.

Around the southern and eastern edges of [6], and respecting the shape of the cut, were five shallow post-holes, each measuring approximately 0.25m in diameter. All postholes had a similar fill of mid greyish brown, silty clay, and of these, [61] and [63] were observed to cut into the top of gully (23) [59]. No finds were obtained from the post-holes.

Although corresponding post-holes were looked for around the northern and western edges of [6], they were not found. It is possible that they had once been there, but that the plough furrow observed to truncate feature (7)[6] had removed any evidence of further associated features. The extent of the truncation of these deposits, by the plough furrow, can be appreciated when we consider the shallow depth of the features remaining- the depths of the five post-holes recorded varied between 0.05m and 0.18m.

To the west of, and possibly associated with Cut [6], was a short alignment of possible post-holes, running north-west/south-east. The south-western edge of the alignment had been clearly truncated by the trench for the modern land drain and this truncation by the land drain and by the plough furrow had resulted in the shallow depth of these post-holes. [45] was sub-circular in plan, with a diameter of approximately 0.35m. (44) consisted of mid greyish brown sandy clay, with occasional charcoal flecks and produced two sherds of Roman pottery.

Cuts [47], [54] and [49] were intercutting post-holes, on the same alignment as [45], although their relationships were unclear. Each fill was of a similar type, consisting of mid greyish brown sandy, silty clay. (22)[54] produced three sherds of Roman pottery.

The final post-hole in the alignment was [55], a shallow, sub-circular feature, measuring approximately 0.40m in diameter. The fill, (5), was of a similar type to the other associated post-holes and produced one sherd of Roman pottery.

It is uncertain whether these post-holes can be associated with the activity represented by the other features within Group 1, or whether they formed part of a second, separate structure, that had been truncated away by the plough furrow.

Group 2

A second grouping of features was located in the centre of Area 1, to the north of Group 1.

[14] was a shallow, sub rectangular feature, with a flattish base, measuring approximately 3.2m wide by 3.7m long. Its fill (12) consisted of dark greyish brown, silty clay, containing large pebbles, heat-cracked stones and charcoal flecks.
Excavation of the feature produced 127 sherds of Roman pottery, dated to the late 4th century. Also found within the fill was a burnt fragment of the upperstone from a rotary quern, used for grinding corn, an iron hobnail and two pins, made from copper alloy.

Once [14] had been emptied of its fill, a sequence of 13 stakeholes was located, lining the southern edge of the feature. Each stakehole measured 0.05m square, in plan, and each fill consisted of mid yellowish brown, sandy clay.

To the west of [14] were two intercutting post-holes, [51] and [53], with an unknown relationship. Each post-hole appeared to be sub-circular in plan, with a diameter of 0.5m. Each fill consisted of dark greyish brown, sandy, silty clay. Context (50) produced three sherds and (52) produced two sherds of Roman pottery.

Group 3

Group 3 was located towards the northern perimeter of Area 1.

[39] was a highly truncated, sub-rectangular/linear pit-type feature. Its fill, (31), actually consisted of two separate layers. The uppermost layer was found to consist of a shallow spread of dark brown, sandy clay, containing frequent pebbles and stones, of all sizes, and occasional flecks of charcoal. Beneath this shallow layer was a compact spread of large and medium sized cobbles, that had been pressed into the natural. This feature appeared to exist as a cut in the ground, rather than as a layer or a surface, but had a maximum depth of 0.2m. In the centre of the feature was a shallow but noticeable, sub-circular shaped depression. (31) was excavated from the feature in its entirety and 139 sherds of Roman pottery were recovered, dateable to 350+ AD. Also recovered from the fill were four fragments of quern, two with evidence of post breakage burning, and a bronze coin depicting Emperor Constantine I, dated to 307-337 AD.

To the west of [39] were two parallel, linear gullies [41] and [43]. The gullies displayed similar characteristics in their fills and in their cut shapes. The western extent of the gullies were limited by the edge of excavation, whilst to the east both appeared to butt-end below [39]. Each gully produced sherds of Roman pottery. Although, stratigraphically, the gullies pre-date [39], it is not certain whether the deposits represent two separate phases of activity or whether they are contemporary.

To the north-west of [39] was a very shallow post-hole type feature (56), consisting of mid brown, sandy clay with flecks of charcoal. No pottery was recovered from this feature. Although further post-holes were looked for, none were found and it may be that the plough furrows closely aligned on either side of [39] had destroyed all evidence of further associated deposits.

Other Features

To the south-west of area 1 was a small collection of irregularly shaped post-hole type features. (32), (33) and (34) had evidently suffered plough damage, as the scarring could be seen in the ground and this could account for the irregularities in their plan shapes. It is equally possible that the three contexts could represent one single, truncated pit-type feature. Each fill consisted of mid greyish brown, silty clay and one sherd of Roman pottery was recovered from (33).

Area 2

The Ditches

Segments of three apparently parallel ditches were recorded within area 2, aligned roughly east / west.

The most northerly of the ditches was represented by [76], measuring approximately 2.5m wide at the surface. Two slots were excavated through the ditch and examination of each section face showed the ditch to have a different profile in each instance. The first section showed the ditch to be approximately 0.5m deep, with 45° sides and a flat base. The second section through the ditch showed its profile to have more steeply sloping sides and a rounded base.
The ditch fill was made up of three different contexts, representing, the gradual silting up of [76]. The primary fill of the ditch, (75) consisted of reddish brown, sandy clay containing occasional pebbles and charcoal. A single sherd of Roman pottery was recovered from this layer. The overlying (74) consisted of mid yellowish brown sandy clay. The uppermost fill of the ditch, (24) consisted of dark greyish brown, sandy, silty clay, containing pebbles and charcoal. Thirty-three sherds of pottery were recovered from (24), dated to the late 3rd-4th century.

Approximately 15m to the south of [76] was a second ditch on the same alignment. This feature [86] measured approximately 2m wide at the surface and was 0.5m deep, with a flat base. The primary fill, (85) consisted of mid yellowish brown, sandy clay, containing pebbles and charcoal flecks and produced 16 sherds of Roman pottery, dating to the late third-fourth century. The uppermost fill of the ditch, (29) consisted of dark greyish brown, sandy, silty clay, containing pebbles and charcoal and 29 sherds of Roman pottery, dated to the late 3rd-4th century.

Approximately 10m to the south of [86], a small segment of a third ditch, [131], was recorded. A small section was excavated through the ditch, which showed it to measure approximately 2.5m wide at the surface and approximately 0.7m deep, with a

V-shaped profile. The primary fill of [131] was (151), which consisted of reddish brown, sandy clay. Context (130) consisted of mid yellowish brown, sandy clay, containing pebbles and charcoal and producing 12 sherds of third-fourth century pottery. The uppermost fill of the ditch, (129) consisted of dark greyish brown, sandy, silty clay and contained 19 sherds of 4th century pottery.

Group 4

Group 4 is the collective name given to the archaeological deposits recorded to lie in between ditches [131] and [86].

[128] was a shallow, possibly sub-rectangular sunken feature, similar to [14] located in area 1, although as this feature, truncated by the edge of excavation, was not fully revealed, it is difficult to define. Measuring approximately 3m wide, the fill of [128], (17) consisted of dark greyish brown, silty clay, 0.2m deep, containing fragments of burnt stone and occasional flecks of charcoal. Excavation of the fill recovered 109 sherds of third-fourth century pottery, five fragments of tegula roof tile and a fragment from the upperstone of a rotary quern. Also recovered from (17) were two highly corroded iron objects, one of which was identifiable as a possible knife blade. There was no evidence of features that could be associated with [128], although the fact that this feature had been truncated by a plough furrow to the north and was limited by the edge of excavation to the south, meant that there was little opportunity to record any such features.

To the east of [128] was a spread of dark greyish brown, silty clay. Context numbers (27), (28) and (144) were assigned to different areas of this layer, but it is possible that they are part of the same deposit. The layer was removed by hand, producing 23 sherds of fourth century pottery and revealing several features cut into the natural below.

[153] and [156] appeared to be two butt-ending gullies, crossing each other at right angles, although the exact nature of their relationship was not clear. [153] was aligned roughly east/west, butt-ending to the west. [156], aligned north/south, crossed [153] just before the butt-end, itself butt-ending to the north. Both gullies were highly truncated and produced no pottery.

[150] was a third gully aligned roughly south-west/north-east. This feature was also highly truncated, being no more than 0.20m wide and 0.08m deep. One sherd of Roman pottery was produced from its fill.

Appearing to respect the line of this gully was part of a possible surface (145). This consisted of a layer of closely packed cobbles, measuring approximately 100mm by 80mm (average size). The cobbles were contained within a shallow, oval depression, measuring 2m long by 1m wide. Although it is possible that this feature may have been part of a hearth, there was no abundance of charcoal and no evidence of *in situ* burning that one might expect with a hearth-type feature. Eighteen sherds of fourth century Roman pottery were removed from the cobble layer.

To the south of (145) there was a narrow, linear gully, aligned north-west/south-east. Although gully [148] was very shallow and truncated to the north-west by a plough furrow; to the south-east by the edge of excavation- its fill, (147), produced eight sherds of fourth century pottery.

The Corn Drying Oven

A hearth- type feature, identified as a probable corn drying oven, was located in the western part of Area 2. This consisted of a linear pit, [80], measuring approximately 1.8m in length and 0.16m deep, cut into the natural boulder clay. The pit was aligned roughly north/south, the northern end measuring 0.6m in width, being wider and more rounded than the tapered southern end. The southern end of [80] measured 0.30m wide and proved to be the deepest part of the feature, with a shallow but noticeable 'bowl' at the end. [80] was lined with a burnt layer of silty clay, (79), rich in charcoal, with evidence of having been burnt *in situ,* in the form of red, scorched natural clay around the feature.(79) was thicker and the signs of scorching were more apparent in the vicinity of the northern, bulb-end of the corn dryer. A sample of (79) was taken for environmental analysis, which showed a high density of carbonised cereal grains, representing glume wheats, *Triticum* sp. and hulled barley. Above (79) was (30), a layer of dark, orange brown, silty clay, containing occasional flecks of charcoal and a single fragment of animal bone. It is likely that this layer represents the infilling of the corn dryer, following its disuse. No finds were obtained from either context with which to date the corn dryer.

Group 5

To the west of the corn dryer was a group of heavily truncated features, located on a ridge between two plough furrows.

The earliest of these features appeared to be [109], a narrow, linear gully, aligned roughly east/west. The gully measured approximately 90mm deep and 0.30m wide. Its fill, (108), consisted of mid greyish brown silty clay and produced two sherds of late $3^{rd}/4^{th}$ century pottery. The gully was truncated at either end by a plough furrow and the modern disturbance associated with a former field boundary.

Possibly cutting [109] was a second gully, [99], aligned roughly north/south, to form a right angle. [99] measured 0.6m wide and 0.26m deep with a V-shaped profile, running for 6m before being truncated by a plough furrow. The earliest fill of [99], (110), produced two sherds of Roman pottery whilst the latest fill, (4) produced 21 sherds of 4^{th} century pottery.

Cutting into gully [99] from the west, were two butt-ending gullies. [82] was aligned roughly east/west, measuring 5m in length and butt-ending at both ends with the western end cutting through (4). [78] was aligned roughly south-west/north-east, measuring approximately 6m in length, also butt-ending at both ends with the north-eastern end cutting through (4). (77) produced a single sherd of Roman pottery. At the junction of gullies [99] and [78], within (110) was the upper portion of a cow cranium, incorporating both horns.

[112] was a shallow, linear pit-type feature, appearing to cut into the top fill of gully [99], and measuring approximately 1.8m long by 0.6m wide. Its fill, (111) consisted of mid greyish brown silty clay and produced two sherds of Roman pottery.

Five metres to the west of gully [99], was a second, parallel gully. [105] also aligned north/south, measuring 3m in length, butt-ending at the southern end and truncated by a plough furrow to the north. [105] had been highly truncated, measuring 0.6m wide and 0.17m deep, with a rounded base. A single sherd of Roman pottery was produced from Context (104), along with fragments of animal bone.

Between gullies [99] and [105] was a cluster of small pits and post-holes that did not appear to form any obvious structural associations. The pottery obtained from the features in this area suggests a fourth century date for the activity they represent. Small quantities of iron slag were produced from a number of the features in this area and although it was not clear whether they represented the smelting or the smithying stages of iron working, it does suggest that small-scale metal-working activity was taking place in the vicinity.

9 Discussion

9.1 Despite the effects of truncation, by the medieval and post-medieval ploughing systems, over much of the site and despite the limitations of the small areas available for archaeological survey, the excavations have revealed an interesting range of deposits providing evidence of activity during the later Roman period.

The Evidence for Agricultural Activity

9.2 *The Corn Drying Oven*

Of the corn drying ovens recorded in Britain, most have been located next to villa settlements and stone built aisled buildings of the 3rd and 4th centuries. Different forms have been identified, but the following components have been put forward as the main criteria for their identification: a stoking area, a fire place, flues and a drying floor (Morris, 1979).

Spelt wheat is thought to have been the most common crop grown in Roman Britain, produced for the purposes of bread making (Monckton, 1995,35). The different stages of crop processing for bread making can sometimes be identified by the appropriate residues left as waste. Following initial threshing, to remove the grains from their stalks, the resulting 'spikelets' were subject to further stages of parching and pounding in order to free the grains from their husks, or 'glumes'. The result was then fine sieved to remove the purified grain, leaving chaff and weed seeds as waste by-products. The presence of quern stones can perhaps be an indication of the milling of the grains for the production of flour.

The corn drying oven found at Appleby Magna was of a very simple form representing, perhaps, the remains of the stoking bowl. Any evidence of a

superstructure, including the drying platform that would have held the grain had been truncated away by subsequent ploughing. Environmental analysis of (79), the burnt lining of the corn drier, showed a high density of carbonised plant material within the fill, with a large proportion of wheat grain. It was thought that the sample represented wheat 'spikelets', the name given to the husked grains after initial threshing.

Corn drying ovens previously found in Leicestershire include the Roman villa sites at Norfolk Street, Leicester (Lucas, 1980, 83) and at Great Casterton (Morris, 1979). Another corn drying oven was discovered at the Romano-British site recently excavated at Crown Hills, Leicester (Chapman, forthcoming). This example was of a similar form to the Appleby Magna corn dryer, consisting of an elongated pit measuring 1.27m long, with a bulb end measuring 0.81m wide and a narrower 'flue' measuring 0.47m wide.

9.3 *The Sunken Features*

Two large sunken features of comparable size were located in the southern part of the development area, within Area 1.

[7] and [14] displayed similar characteristics in the nature of their fill and of their form. Both features were roughly sub-rectangular in plan, measuring approximately 3m wide by 4m long. Both features showed some structural evidence, although plough truncation may have destroyed evidence of further structural deposits that could have been associated with these features.

[7] appeared to be encircled by a ring of five shallow post-holes. Each post-hole appeared to have roughly the same diameter. Although no finds were obtained with which to date any of the post-holes, it seems likely that they were roughly contemporary with [7] as they follow the line of the cut so closely. Corresponding post-holes from the northern side of the feature are missing and it is likely that the plough furrow that was observed to have truncated through the feature, has destroyed all evidence of these shallower deposits.

[14] displayed a sequence of 13 square shaped stakeholes around its southern edge, to form a rough line of stakes around approximately half of the feature. Again, the proximity of the feature to large plough furrows on either side suggests that more deposits that could have been associated with this group, may have been destroyed by the medieval ploughing and the later ploughing undertaken to level the ridge and furrow in the field.

A third sunken feature, [128] was located in the southern part of Area 2. [128] was of a size comparable to [7] and [14], although the full extent of he feature was not seen as it was truncated, to the south by the baulk edge of excavation and to the north by a plough furrow. The plough furrow was removed by hand, revealing the edge of [128]. However, the depth of the plough furrow meant that any evidence of structural remains, recorded in conjunction with similar features [7] and [14], that may have been associated with [128], would have been destroyed.

Environmental analysis of (17) showed a predominance of chaff items in the sample, representing the glumes, or the husks from parched grains of spelt wheat. Chaff items were predominant in all of the context samples subject to environmental analysis and this is a good indication of crop processing works in the vicinity.

Although the sunken feature building, or 'Grubenhaus' is a form of building more commonly associated with the Saxon period, there have been several examples recorded from Romano-British sites around the country, including the Isle of Thanet, in Kent (Bennet & Williams, 1997), Crickley Hill in Gloucestershire (Jarret, pers.comm) and the Lower Terrace site at Tintagel Island (Harry, 1994).

At Crickley Hill, the site of a re-occupied Iron Age hill fort, several sunken feature buildings were located that were thought to date to 400AD (Jarret, pers.comm). Some of these examples had evidence of foundation wall stones and were thought to represent cob-walled structures. Stakeholes found in association with structures found on the terrace at Tintagel, dated to 395AD were thought to represent uprights used to support turf walls (Harry, 1997).

The results of the environmental analysis, which provides evidence of the waste products of crop processing, and the presence of the identified corn drying oven suggest that all stages of crop processing were being carried out on site.
Based on the results of the excavation, it is possible that the sunken features may represent low-status structures which served as the 'workshops' where stages of crop processing were undertaken, following the parching of the grain in the corn drying ovens.
The chaff items recovered from (17) suggests that this sunken feature may have been the location where the parched grain was pounded, in order to remove the grains from their glumes. The presence of quern fragments both in (17) and (12) suggest that the refined grain was being milled on site and that these 'workshops' may have been the focal points for more than one type of activity, with the various stages of corn processing being undertaken in one location.

The parching of grain in corn dryers has also been suggested as a method of preserving the corn for storage purposes, so that it could be used throughout the year (Morris, 1979,25). As the archaeological deposits on site indicate agricultural activity on a small scale, perhaps serving the domestic requirements of a single farmstead, this piecemeal method of activity seems more likely and it is possible to imagine small quantities of corn being refined and milled according to the needs of the household. It is not unlikely that the processing of the grain was undertaken within the ancillary farm buildings represented perhaps by [7] [14] and [128].

9.4 *The Threshing Floors*

The initial threshing stage of corn processing is difficult to identify using environmental analysis of soil samples, as the waste product of threshing is straw, which would have been removed for re-use elsewhere on site. Straw was an important ingredient used in the construction of cob-walled buildings, which was a common method used in the construction of low status, timber-frame, agricultural buildings of the Roman period (Morris, 1979). However, as other stages of crop processing have

been identified on site, it is likely that the initial threshing of the corn took place nearby and it is possible that the two cobbled surfaces recorded, (31) and (145), could represent threshing floors. Both contexts appeared to consist of medium and large sized rounded cobbles contained within shallow depressions in the ground. It is possible that the large quantities of broken pottery recovered from each context were deposited on the floors in order to consolidated the surfaces that each may represent. A narrow gully [150] that was aligned against cobbled surface (145) may be a beam slot, representing a timber-frame structure which may have provided shelter to the surface. All other structural evidence pertaining to this feature may have been eradicated by the plough furrow that appears to have truncated the northern extent of the surface.

Other Activity

9.5 *The Ditches*

The three parallel ditches recorded within area 2 pose some problems in their interpretation. As the ditches were on the same alignment as the medieval ridge and furrows apparent across the development area they could represent a separate phase of medieval ploughing. However, sections excavated through each ditch showed each one to have a good ditch-shaped profile and the quantities of Roman pottery with the lack of any later pottery finds suggest that these features were indeed Roman ditches, rather than medieval plough furrows.
It is difficult to understand what function these ditches may have served. [76] and [86] were only 15m apart making it very difficult to envisage them as enclosure ditches, as no returns were located that would have formed the enclosure.
Another possible explanation for the ditches and their proximity could be that they represent part of a cattle droveway, with the ditches acting to direct the cattle in a particular direction, from one field to another. Such a droveway has been identified, using geophysical survey, from a multi-period site at Warren Farm, Lockington (Butler & Ripper, 1998) but no similar Roman examples are known from Leicestershire.

9.6 *The Structural Evidence*

It has been suggested above that the sunken features located at Appleby Magna may represent basic structural forms, possible ancillary buildings of a low status farming settlement. The activity recorded on site has indicated the likelihood of the nearby presence of a central farm building or villa.
Excavations in Leicestershire and nation-wide have shown that the archaeological evidence of low status Romano-British farmstead buildings can be minimal, with use of timber frames and cob walling, as opposed to the stone built structures of wealthier settlements, which leave less ephemeral remains for the archaeological record.

Excavations at Bonners Lane, Leicester (Finn, 1994) located the remains of a 3rd /4th century timber framed building, existing as an imprint of gullies, or beam slots, representing external walls, with correspondingly shallower slots for internal, partition walls. Although the building was heavily truncated by later deposits, the form of the building was easily recognisable.

It is possible that the gullies of Group 5, within Area 2, could represent the beam slots of a rectangular shaped, timber framed building, although the truncation, to the north and to the south of the group, by plough furrows, makes it very difficult to substantiate this theory. However, the fact that neither gully [99] or [105] appeared to continue to run on the other side of the 3m wide plough furrow, suggesting turning or termination of each feature, suggests that these features might be structural rather than drainage features or field systems.

In addition to the parallel gullies [99] and [105], the right angle formed by gullies [99] and [109] is also reminiscent of structural forms, although once again, the later truncation of these features by plough furrow makes it very hard to be more conclusive. Neither gully was observed to continue to run on the southern side of the plough furrow.

If the gullies of Group 5 do represent a structure, then it is unlikely that the other features of the group, the pits and post-holes contained by the gullies, are contemporary with the building. Due to the undiagnostic quality of much of the pottery found within the features of Group 5, with a date range of 3rd/4th century given for all contexts, it is not possible to suggest a time sequence for the activity in this area, although stratigraphically, the latest phase of activity is represented by Context (10), the pebble surface and Context (122), the occupation layer above it.

10 Conclusion

The archaeological excavations undertaken at Appleby Magna have provided us with a rare opportunity to record the activities of a working, low status rural farmstead of the later Romano-British period. Excavations of rural settlements of this type have been rarely undertaken in Leicestershire and evidence nationally tends to be scarce due to the insubstantial nature of such occupation sites.

The archaeological remains located had been subject to significant truncation by the medieval ridge and furrow ploughing system and much of the archaeological evidence will have been lost as a result. As areas 1 and 2 represent only a small portion of the total development area, it is likely that the activity seen in these areas continues over the rest of the site.

There have been no previous archaeological excavations in Appleby Magna and although the village is mentioned in the Domesday Survey of 1086, the earliest archaeological evidence of settlement previously known in the village is the Church of St. Michael, dating to the early 14th century.

The Romano-British occupation site recorded through archaeological excavation has provided evidence for the early occupation of the area of Appleby Magna. The evidence for agricultural activity suggests that all the stages necessary to produce bread flour from the unrefined crop were being carried out on site, but that the production was on a small scale, perhaps furnishing the requirements of a single farmstead.

There was evidence to suggest that the small scale agricultural practices may have been carried out within small, insubstantial buildings, possibly consisting of timber

structures that may have supported cob or turf walls. A sequence of shallow gullies, in close proximity to the corn drying oven, may represent the beam slots of the main farmstead building, although the plough truncation of this area makes it difficult to prove this conclusively.

The small assemblage of animal bone recovered from the site indicated that cattle sheep and pig were being kept and consumed by the inhabitants of the site. It was unclear whether the presence of dog and cat bones indicated domesticated or scavenging animals. The pottery sources, reflect local trading patterns with production centres such as Nene Valley, Oxfordshire, Derbyshire and Mancetter. The majority of the pottery found at Appleby Magna may have come from the kilns at Ravenstone, located approximately 9km to the north-east (Keegan, S., 1995).

The finds assemblage suggested that all the activity recorded on site took place around the 4th century, and certain more diagnostic sherds of pottery have been dated to the latter half of the century. The spatial distribution of the archaeological deposits would also suggest that the evidence represents the activities of a single working farmstead over a short timespan. There is no evidence of the continuity of the site beyond the 4th century and it is possible that after this time, the farmstead fell into disuse and became part of the open field systems of Appleby Magna.

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12 Archive

The archive is to be held with the Leicestershire Museums, Arts and Records Service, under the accession number X.A64.1999.

site indices
158 context sheets
19 A2 permagraph sheet pencil drawings of plans and sections
3 colour films/ 4 monochrome films
small finds
animal bone
pottery finds
tile and quern
survey data

13 Publication

A version of the Summary (above) will be published in *Transactions of the Leicestershire Archaeological and Historical Society* in due course.

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Appendix I: Table of Context Descriptions

Area	Context No.	Nature of deposit	Description
T1	1	fill	Fill of gully [2]. Pale, orange brown, firm and compact sandy clay
T1	2	cut	Cut of gully/ditch; linear, 45° sides, flattish base, orientated NE-SW
T4/A2	3	fill	Fill of irregular shaped feature. Mid, reddish brown, firm, sandy clay
T4/A2	4	fill	Fill of gully [110]; dark greyish brown, firm silty clay with occasional pebbles and occasional charcoal flecks.
T8/A1	5	fill	Fill of post-hole [55]; dark greyish brown, friable silty clay with occasional charcoal flecks
T8/A1	6	cut	Cut of sunken feature (7); sub rectangular, shallow, flat base
T8/A1	7	fill	Fill of shallow, sunken feature [6]; dark, greyish brown, firm silty clay, containing occasional pebbles and charcoal flecks.
T8/A1	8	fill	Spot find
T4/A2	9	fill	Fill of post hole[117];mid greyish brown, firm silty clay with pebbles.
T4/A2	10	layer	Spread of mid greyish brown, sandy clay containing an abundance of tightly packed, small pebbles.
T4/A2	11	fill	same as (4)
T10/ A1	12	fill	Fill of sunken feature [14]; dark greyish brown, friable silty clay, containing occasional large pebbles and fire cracked stones and charcoal flecks.
T10/ A1	13	fill	same as 12
T10/ A1	14		Cut of sunken feature; sub rectangular plan shape, very shallow with a flattish bottom. Cut through by series of stakeholes.
T11	15	fill	Fill of gully [159]. Pale orange brown, firm and compact sandy clay. Possible continuation of linear feature (1) [2] seen in Trench 1.
T4/A2	16	fill	Part of (10)
T12/ A1	17	fill	Fill of sunken feature [128]; dark greyish brown, friable silty clay, containing occasional burnt stone fragments and flecks of charcoal.
T12	18	fill	Interface between natural clay and (17)
T8/A1	19	fill	Fill of linear feature; mid greyish brown, friable sandy clay
T8/A1	20	fill	Fill of post hole [58] dark greyish brown silty clay
T8/A1	21	fill	same as (7)
T8/A1	22	fill	Fill of post hole [54] Mid greyish brown, firm silty clay with occasional charcoal flecks
T8/A1	23	fill	Fill of gully [59]; mid greyish brown, friable sandy clay with occasional pebbles
A2	24	fill	Fill of ditch [76];dark greyish brown, firm sandy clay containing occasional large stones and pebbles and occasional charcoal flecks
A2	25	fill	Fill of gully [123]; mid reddish brown, firm silty clay with medium and small rounded pebbles
A2	26	spot find	context number given to spot find
A2	27	layer	Layer of dark greyish brown, friable silty clay, over gully(147). Same as (144)
A2	28	fill	Layer of dark greyish brown, friable silty clay, over ditch (129).
A2	29	fill	Fill of ditch [85]; mid/dark greyish brown, firm sandy clay with occasional small pebbles and flecks of charcoal.
A2	30	fill	Fill of burnt 'corn dryer' [80]; dark orange brown, friable silty clay with frequent flecks of charcoal and occasional small/med. pebble.
A1	31	fill	Fill of large, shallow, sub rectangular, sunken pit feature [39]. Dark brown, friable sandy clay with frequent large rounded pebbles and occasional charcoal.
A1	32	fill	Fill of post –hole type feature [35]; mid greyish brown, soft silty clay with common pebbles and charcoal flecks.
A1	33	fill	Fill of small, irregular shaped depression, possibly same as (32)
A1	34	fill	Fill of small, sub circular feature [36]; mid greyish brown, soft silty clay. Closely associated with [35].
A1	35	cut	Cut of (32) (33); Sub circular plan, with 30° sides and a flat base
A1	36	cut	Cut of (34); Thin lozenge shaped feature with rounded base
A1	37	fill	Fill of gully [38]; mid greyish brown soft sandy clay with occasional pebble
A1	38	cut	Cut of gully (37); linear, butt end, with 45° sides and a V- shaped base
A1	39	cut	Cut of sunken feature (31); sub rectangular in plan with a curved base

A1	40	fill	Fill of gully [41]; dark greyish brown, friable sandy clay
A1	41	cut	Cut of gully (40); linear, with 45° sides and a curved base. Aligned E-W
A1	42	fill	Fill of gully [43]; mid greyish brown, friable sandy clay with rare charcoal and occasional pebble
A1	43	cut	Cut of gully (42); linear, with 45° sides and a curved bottom. Aligned E-W
A1	44	fill	Fill of post hole [45]; mid greyish brown, firm sandy clay, with small pebbles and occasional charcoal fragments
A1	45	cut	Cut of post hole (44); sub-circular in plan with 45° sides and a rounded base
A1	46	fill	Fill of post hole [47]; mid greyish brown, firm sandy clay with small pebbles and occasional charcoal fragments
A1	47	cut	Cut of post hole (46); Sub-circular with 45° sides and a rounded base
A1	48	fill	Fill of post hole [49]; mid brown, firm sandy clay with occasional small pebbles
A1	49	cut	Cut of post hole (48); Sub-circular with 45° sides and a rounded base
A1	50	fill	Fill of post hole [51]; dark greyish brown, friable silty clay with occasional pebbles and charcoal flecks
A1	51	cut	Cut of post hole (50); Circular with 45° sides and a rounded base
A1	52	fill	Fill of post hole [53]; dark greyish brown, friable silty clay with occasional pebbles and charcoal flecks
A1	53	cut	Cut of post hole (52); Circular with 45° sides and a rounded base
A1	54	cut	Cut of post hole (22); Sub- circular with 45° sides and a rounded base
A1/ T8	55	cut	Cut of post hole (5); Sub- circular with 45° sides and a rounded base
A1	56	fill	Fill of post hole [57]; mid brown, firm sandy clay with rare small pebble and charcoal
A1	57	cut	Cut of post hole (56); circular with curved sides and a flat base
A1	58	cut	Cut of post hole (20); Sub- circular with 45° sides and a rounded base
A1	59	cut	Cut of gully (23); linear, steep sided with a flat base
A1	60	fill	Fill of post hole [61]; mid greyish brown, soft silty clay with occasional pebble
A1	61	cut	Cut of post hole (60); circular with curved sides and a flat base
A1	62	fill	Fill of post hole [63]; dark greyish brown, friable sandy clay with common charcoal flecks
A1	63	cut	Cut of post hole (62); Sub- circular with 45° sides and a rounded base
A1	64	fill	Fill of post hole [65]; mid greyish brown, friable silty clay
A1	65	cut	Cut of post hole (64); Circular with 45° sides and a flat base
A1	66	fill	Fill of X identical stakeholes; mid yellowish brown, soft sandy clay
A1	67	cut	Cut of X stakeholes (66); square shaped cut
A1	68	fill	Fill of gully [69]; mid greyish brown, firm, silty clay with occasional medium rounded pebbles and charcoal fragments
A1	69	cut	Cut of gully (68); linear, rounded base
A1	70	fill	Fill of gully [71]; mid reddish brown, friable sandy clay with occasional pebble
A1	71	cut	Cut of gully (70); linear, U- shaped gully
A2	72	fill	Fill of gully [73]; yellowish red/brown, firm sandy clay with occasional small pebbles and stones and occasional charcoal flecks
A2	73	cut	Cut of gully (72)
A2	74	fill	Fill of ditch [76]; mid yellowish brown, firm sandy clay, with occasional large stone and pebbles. Occasional charcoal flecks
A2	75	fill	Fill of ditch [76]; yellowish red/brown, firm sandy clay with stone, pebbles and charcoal. Below fill (74)
A2	76	cut	Cut of linear ditch. E-W alignment
A2	77	fill	Fill of gully [78]; mid orange brown, sticky silty clay with rare pebble
A2	78	cut	Cut of gully (77); linear, 45° sides and a rounded base
A2	79	fill	Burnt lining of [80]; brownish black, friable, compact silty clay, rich in charcoal
A2	80	cut	Cut of burnt feature; shallow, elongated pit, possible corn dryer
A2	81	fill	Fill of gully [82]; mid greyish brown, soft silty clay with occasional pebble
A2	82	cut	Cut of gully (81); linear gully with 45° sides and a rounded base
A2	83	fill	Fill of post hole [84]; mid-dark greyish brown, soft silty clay with rare pebble
A2	84	cut	Cut of post hole (83);Circular, shallow with rounded base

A2	85	fill	Fill of ditch [86]; mid yellowish brown, firm sandy clay with occasional large and small pebble and charcoal flecks
A2	86	cut	Cut of ditch (85); linear, steep sided with rounded base
A2	87	fill	Fill of pit [88]; mid greyish brown, soft silty clay with common pebble
A2	88	cut	Cut of pit (87); lozenge shaped, shallow, vertical sides and a flat base. beam slot
A2	89	fill	Fill of pit/post hole [90]; mid greyish brown, soft silty clay, common pebble
A2	90	cut	Cut of pit/post hole (89); shallow, circular, rounded base
A2	91	fill	Fill of pit/post hole [92]; mid greyish brown, soft silty clay, rare pebble
A2	92	cut	Cut of pit/post hole (91); Circular, shallow, rounded base
A2	93	fill	Fill of pit/post hole [94]; mid greyish brown, soft silty clay, rare pebble
A2	94	cut	Cut of pit/post hole (93); Circular, shallow, rounded base
A2	95	fill	Fill of pit/post hole [96]; mid greyish brown, soft silty clay, rare pebble
A2	96	cut	Cut of pit/post hole (95); sub circular, shallow, flat base
A2	97	fill	Fill of pit [98]; pale greyish brown, soft silty clay with rare pebble
A2	98	cut	Cut of pit (97); Shallow, sub circular concave base
A2	99	cut	Cut of gully (4) (110); linear, 45° sides and flat base
A2	100	fill	Fill of pit [101]; mid orange brown, firm silty clay with rare pebble
A2	101	cut	Cut of pit (100); Sub circular, shallow with flat base
A2	102	fill	Fill of pit [103]; mid orange brown, firm silty clay with rare pebble
A2	103	cut	Cut of pit (102); Sub circular, shallow with concave base. Associated with [101]
A2	104	fill	Fill of gully [105]; mid greyish brown, firm silty clay with rare pebble and charcoal
A2	105	cut	Cut of gully (104); linear, 45° sides with concave base
A2	106	fill	Fill of pit [107]; mid orange brown, firm silty clay with rare pebble and mudstone flecks. Truncated by field boundary
A2	107	cut	Cut of pit (106); circular plan shape with 45° sides and a concave base
A2	108	fill	Fill of gully [109]; mid orangey grey/brown, firm silty clay with occasional pebble. Cut by [107]
A2	109	cut	Cut of gully (108); linear, 45° sides, U-shaped base
A2	110	fill	Primary fill of gully [99]; mid reddish brown, compact silty clay. Below (4)
A2	111	fill	Fill of linear feature [112]; mid greyish brown, friable silty clay with occasional pebble
A2	112	cut	Cut of linear feature (111); possible beam slot? lozenge shaped, shallow vertical sides and a flat base
A2	113	fill	Fill of post hole [114]; mid reddish grey/brown, friable silty clay with occasional pebbles and charcoal
A2	114	cut	Cut of post hole (113); shallow, circular with a flat base
A2	115	fill	Fill of post hole [116]; mid reddish grey/brown, friable silty clay
A2	116	cut	Cut of post hole (115); shallow, circular with a flat base
A2	117	cut	Cut of post hole (9)
A2	118	fill	Fill of post hole [119]; mid greyish brown, friable silty clay with occasional pebble
A2	119	cut	Cut of post hole (118); shallow, circular with concave base
A2	120	fill	Fill of post hole [121]; mid orange brown, firm silty clay
A2	121	cut	Cut of post hole (120); circular, with vertical sides and a concave base
A2	122	layer	Spread of dark greyish brown, compact and friable sandy clay/silt, with frequent pebbles. Above layer (10).
A2	123	cut	Cut of gully (25); linear, 45° sides and a rounded base
A2	124	fill	Fill of post hole [125]; mid greyish brown, firm silty clay
A2	125	cut	Cut of post hole (124); circular, shallow with a rounded base
A2	126	fill	Fill of pit [127]; dark greyish brown, friable sandy, silty/clay with occasional pebble and charcoal fleck
A2	127	cut	Cut of pit (126); shallow, sub circular feature with a rounded base
A2	128	cut	Cut of pit (17); sub rectangular with gently sloping sides and a flattish base
A2	129	fill	Fill of ditch [131]; dark greyish brown, firm sandy clay with occasional large and small pebbles and stones and charcoal flecks
A2	130	fill	Fill of ditch [131]; mid yellowish brown, firm sandy clay with stones, pebbles and charcoal

A2	131	cut	Cut of ditch (129) (130) (151); linear, 30°-50° sides and a curved base
A2	132	fill	Fill of post hole [133]; mid brown, friable sandy clay with occasional pebbles and charcoal flecks
A2	133	cut	Cut of post hole (132); deep, sub circular post hole with vertical sides and a stepped base
A2	134	fill	Fill of two similar stakeholes [135]; mid brown, friable, sandy silt
A2	135	cut	Cut of two stakeholes (134); very shallow, circular holes, perhaps the very tips of two stakes used to support the post in [133]
A2	136	fill	Fill of post hole [137]; mid brown, friable, sandy silt with occasional small pebbles and occasional charcoal flecks
A2	137	cut	Cut of post hole (136); sub circular, vertical sides and a U-shaped base
A2	138	fill	Fill of post hole [139]; mid brown, friable, sandy silt with occasional small pebbles and occasional charcoal flecks
A2	139	cut	Cut of post hole (138); sub circular, vertical sides and a U-shaped base. Similar form to closely associated post hole [137]
A2	140	fill	Fill of pit [141]; mid greyish brow, firm silty clay containing occasional medium rounded pebbles. Below layer (122)
A2	141	cut	Cut of pit (140); sub circular, with 45° sides and a rounded base
A2	142	fill	Fill of post hole [143]; dark greyish brow, friable silty clay, with occasional small pebbles and charcoal flecks
A2	143	cut	Cut of post hole (142); lozenge shaped cut, with 45° sides and a flat base
A2	144	fill	Layer of dark greyish brown, compact silty clay, overlying cobble layer (145). Containing charcoal and fragments of fired clay. same context as (27)
A2	145	fill	Layer of cobbles, consisting of closely packed, rounded pebbles, approximately 100mm by 80mm (average size).
A2	146	cut	Cut containing (144) and (145); Ovoid in plan, rounded base
A2	147	fill	Fill of gully [148]; mid reddish brown, firm, silty clay with occasional flecks of charcoal
A2	148	cut	Cut of gully (147); linear with 60° sides and a flat base
A2	149	fill	Fill of gully [150]; mid greyish brown, firm, silty clay with occasional small and medium rounded pebbles
A2	150	cut	Cut of gully (149); linear with 45° sides and rounded base. Butt-ends next to [148]
A2	151	fill	Primary fill of ditch [131]; reddish yellow/brown, firm sandy clay
A2	152	fill	Fill of gully [153]; dark greyish brown, friable silty clay with occasional small pebbles and charcoal flecks
A2	153	cut	Cut of gully (152); shallow, linear with a flattish base. Runs parallel with [150] and cuts (28)
A2	154	layer	Shallow spread of mid greyish brown, friable silty clay with occasional pebbles and flecks of charcoal. Truncated by edge of excavation.
A2	155	fill	Fill of gully [156]; dark greyish brown, friable silty clay
A2	156	cut	Cut of gully (155); shallow, linear with a rounded base
A2	157	fill	Fill of post hole [158];mid brown, compact silty clay, with frequent medium rounded pebbles and occasional flecks of charcoal
A2	158	cut	Cut of post hole (157); rectangular in plan, vertical sides and a flat base
T11	159	cut	Cut of gully (15); same as [2] seen in trench 1

Appendix II: The Finds Reports

Fabric	sherd no.	wt(g)	no.%	wt%
GW	587	10824	72.7	75.2
MO4	41	1403	5.1	9.7
MO4/18	5	184	0.6	1.3
MO19	1	23	0.1	0.2
C2	14	312	1.7	2.1
C3	10	129	1.2	0.9
C11	3	26	0.4	0.2
C13	2	4	0.3	0.1
DS	24	360	3	2.5
CG1	36	271	4.5	1.8
CG1B	5	36	0.6	0.2
BB1	33	249	4.1	1.7
Samian	3	26	0.4	0.2
OW	24	283	3	2
WW	10	171	1.2	1.2
MCR	9	95	1.1	0.7
Total	807	14396	100	100

Table : Roman Pottery Fabric Totals – sherd no. and weight (g) (For Fabric descriptions see Pollard 1994, 112-114))

The Grey Wares

The grey wares are by far the largest pottery group (75.2 % by weight). Bead and flange dishes are present in large numbers, together with necked jars and fragments necked vessels of a jar, bowl-jar or bowl form. BB1 bead and flange dishes are typically at least late 3rd in date, and these grey ware copies probably date to the 4th century. Fig. 1 shows an example of one of these, a similar vessel having been found at the Ravenstone kiln site 9.5 km to the eastnortheast (Keegan 1995 Boyer Type 11, 85). Other dish forms present are plain-rimmed, 'pie' dishes and 'incipient flange' vessels.

Amongst the grey wares is a small, but notable, group of 10 sherds weighing 145g. These are in a coarser fabric containing moderate-frequent angular and sub-angular inclusions up to 2mm in size, probably quartz or quartzite. Two forms are represented, the necked jar, of which there are two, and one bead and flange dish. It is possible that this is partly an attempt to copy products, including necked jars, made by the Derbyshire ware industries. A coarse grey ware fabric was also noted by P. Boyer at Ravenstone (1989) and these coarser grey ware sherds may originate from these kilns.

The Mortaria

The mortaria, which constitute 11.2 % by weight of the pottery, are all of a Mancetter/Hartshill source. This is unsurprising given the proximity of this production centre *c.* 14 km to the south of the Appleby Magna site. The most

common form is the small hammerhead type of a late 3rd century to third quarter of the 4th century date. Other forms include a wall-sided vessel of a similar date, larger reeded hammerhead mortaria dating from the second quarter of the 3rd century to around the mid 4th century and a hooked flange vessel, probably from the 2nd century.

Other Wares

Colour-coated fabrics (3.3% weight) are dominated by the utilitarian forms of the lower Nene Valley which date to the late 3rd and 4th centuries (Howe *et al* 1980). These included plain-rimmed and 'incipient flange' dishes and a flanged bowl. Two sherds of an Oxfordshire colour-coat (C13) vessel were also present in context 28. This is likely to be of a 4th century date as Oxfordshire products did not reach the area until this period.

2.5 % of the assemblage by weight is Derbyshire ware, with at least two ledge rim jars present. This compares to 21.2 % from Phase 3, probably late 3rd to mid 4th century in date, from the site at Jubilee Plantation, Normanton le Heath, Leicestershire (Marsden unpublished). This site is only 9 km to the northeast of the Appleby Magna excavation. Martin (forthcoming) has suggested Derbyshire ware ceased volume production during the mid-4th century AD (Clark 1999, 136). The small quantities of Derbyshire ware, given the location of the Appleby Magna site within the area of the industry's distribution, may point towards a post-mid-4th century date for the activity.

BB1 constitutes only 1.7% by weight of the Roman pottery, comparing to 3.9% from Phase 3 at Normanton le Heath (Marsden unpublished). The small amount of this fabric probably reflects the fact that local grey ware copies of BB1 forms, such as the bead and flange dish, were successfully competing with the BB1 industry in the area during the 4th century. Few diagnostic pieces are present, although both jars and dishes occur in a BB1 fabric. The plain-rimmed dish form (Gillam 329) present in BB1 fabric dates from 190-340 AD.

The calcite-gritted wares include two vessels in CG1B fabric, a necked jar and a bead and flange dish or bowl. The latter of which may date to the 4th or even early 5th century if comparisons are made with the site at Harrold in Bedfordshire (Brown 1994, Fig. 35 nos. 260-262, Fig. 38 nos. 332-333 and Fig. 39 nos. 344, 349 and 350).

General Discussion

The pottery would seem to represent activity in the 4th century, perhaps most likely in the early to middle part. Forms diagnostic of the second half of the 4th century are not present. However, as described above, the small quantities of Derbyshire ware possibly suggest a 350+ AD date. Three contexts in particular produced large quantities of pottery (Context 12 – 2498g, Context 17-1460g and Context 31- 2510g). Contexts 12 and 31 may date to the second half of the 4th century.

Over 75% by weight of the pottery is grey ware. A probable source for this is the kilns at Ravenstone 9.5 km away, some similarities in fabrics and forms having been noticed. It should also be mentioned that the possible kiln site at Hugglescote, Coalville excavated in by Athur Hurst in 1983 (P. Saunders unpublished-archive with LMARS) also produced similar forms, such as bead and flange dishes and necked

jars, and fabrics. This is close to, and perhaps associated with, the Ravenstone industry and represents another possible source for the Appleby Magna grey wares. Apart from this the site was receiving regional imports including colour-coats from the lower Nene Valley and Oxfordshire, BB1, Derbyshire ware, mortaria from the Mancetter/Hartshill production centres and calcite-gritted wares of an uncertain origin. The regional wares contain typically later forms reflecting the likely 4th century date of the assemblage.

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Pottery Totals (Sherd no. and weight (g)) by context with Spot-Dates

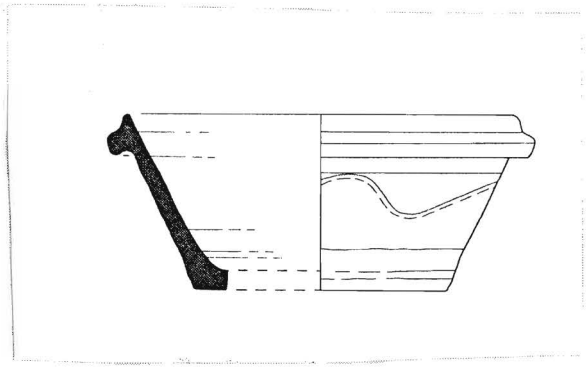
Context	Sherd No.	Wt(g)	Date
3	8	112	3-4C
4	21	151	4C
5	1	7	ROMAN
6	5	36	4C
7	34	624	?L4C
8	5	97	ROMAN
10	36	643	L3-4C

11	5	70	4C
12	122	2498	4C (?350+)
13	4	116	M2C+
14	1	32	ROMAN
17	106	1460	3-4C
18	3	16	ROMAN
22	3	52	ROMAN
23	31	310	120s+
24	33	486	L3-4C
25	25	650	ROMAN
26	13	225	L3-4C
27	8	322	ROMAN
28	15	170	4C
29	38	353	3-4C
31	139	2510	4C(?350+)
33	1	4	ROMAN
40	6	94	120s+
42	3	36	ROMAN
44	2	17	ROMAN
50	3	45	ROMAN
52	2	17	ROMAN
68	1	6	ROMAN
75	5	64	ROMAN
77	1	14	ROMAN
85	16	697	L3-4C
87	9	103	L3-4C
89	3	28	ROMAN
102	3	16	ROMAN
104	1	8	ROMAN
106	3	30	120s+
108	2	13	L3-4C
110	2	17	ROMAN
111	2	12	ROMAN
120	1	32	ROMAN
122	21	158	M2C+
126	2	51	4C
129	19	519	4C
130	12	260	?m3-m4C
145	18	701	4C
147	8	278	4C
149	1	11	ROMAN
154	1	167	ROMAN
U/S	3	58	ROMAN
U/S	3	37	POST-ROMAN

Illustration

1. Grey ware bead and flange dish (Context 31)

Scale 1:4



The Small Finds **Martin Shore**

no.	fill.	cut.	description.	date.
1	27	146	Bronze Coin, AE/3 of Constantine 1 307-37AD. Obverse reading, CONSTANTINVS AVG Reverse, camp gate surmounted by two turrets, reading PROVIDENTIAE AVGG. Condition good.	307/37AD.
2	7	6	Bronze Coin, Centenionalis of Magnentius 350/53AD. Obverse reading, IM.CAE.MAGNENTIVS AVG. Reverse reading, FELICITAS REIPVBLICE. Showing Magnentius standing, holding victory and labarum, TRP at base of reverse. Condition, very good.	350/53AD.
3	u/s	u/s	Ferrous Nail (hobnail).	
4	27	146	Bronze Coin, AE/4 of Valentinian 1 364/75AD. Legends unreadable, showing Victory advancing left. Condition Good.	364/75AD.
5	27	146	Ferrous Nail.	
6	u/s	u/s	Bronze Coin, same type as small find 1.	307/37AD.
7	24	76	Lead Object.	
8	u/s	u/s	Bronze Coin, broken, obverse too poor for any identification, reverse appears to show a horse. Late third century?. Condition very poor.	Third cent.
9	u/s	u/s	Bronze Coin, AE/3/4 type. Too poor for any identification.	Fourth cent.
10	31	39	Bronze Coin, Constantine 1?, reverse similar/same as small find 28. Condition poor/fair	307/37AD.
11	u/s	u/s	Bronze Coin, AE/4 of Constantine 11 337/40AD.Obverse legends obscured.	337/40AD.
	u/s	u/s	Reverse shows two soldiers standing either side of laburum. Condition fair.	
12	u/s	u/s	Bronze Coin, similar to small find 10, legends obscured. Condition fair.	307/37AD.
13	u/s	u/s	Bronze Coin, Constantine 1?, obverse fair,but no legend remains. Reverse shows figure standing. Overall condition, poor.	307/37AD.
14	u/s	u/s	Ferrous Object, large, with remainder of a shaft. Badly corroded.	
15	u/s	u/s	Ferrous Object, crescent shaped. Badly corroded.	
16	u/s	u/s	Bronze Coin, post Constantine 1 330/37AD (commemorative issue) AE/3/4 Obverse reading, VRBS ROMA, helmeted bust of Roma, wearing imperial mantle. Reverse showing, She-Wolf standing, suckling	330/37AD.

			Romulus and Remus, SMTE at base of coin. Condition fair/good.	
17	u/s	u/s	Lead Object, spindle whorl, with raised dot design on one side, and a raised line design on the opposite side. Probably medieval in date. Condition good.	13/14 cent.
18	u/s	u/s	Bronze Brooch 50/70AD, standard Dolphin type. No catch plate or iron spring and pin survives. Slight traces of a lined pattern appears on the bow. Condition fair.	50/70AD.
19	u/s	u/s	Copper Alloy Buckle, small double looped, (probable spur buckle), with missing iron pin.	14/15 cent.
20	u/s	u/s	Bronze Coin, AE/4.Too poor for any identification.	Fourth cent.
21	u/s	u/s	Bronze Coin, AE/3 of Valentinian 1 364/75AD, similar to small find 22 Obverse reading, D.N.VALENTINIANVS P.F.AVG. Reverse. obscure legend, but shows Vaentinian standing with captive. Condition fair.	364/75AD.
22	u/s	u/s	Bronze Coin, AE/3 of Valentinian 1 364/75AD, similar to small find 21, but the reverse reads, GLORIA ROMANORUM. Condition fair/good.	364/75AD.
23	u/s	u/s	Bronze Coin, AE/3 of Constantine 1 307/37AD. Obverse reads, IMP CONSTANTINVS AVG. Reverse showing soldier standing left, holding globe. P.L.N (London mintmark) at base. Condition fair.	307/37AD.
24	u/s	u/s	Copper Alloy Object, brass strap end with trefoil end, fourteenth century. Condition good.	14 cent.
25	u/s	u/s	Copper Alloy Object, brass strap end in poor condition (corroded and broken). Fourteenth century.	14 cent.
26	u/s	u/s	Copper Alloy Object, probable horse harness fitting (small), with traces of design.13/14 cent.	13/14 cent.
27	u/s	u/s	Bronze Coin, AE/3/4 of Gratian?. Too poor for good identification.	367/83AD?.
28	u/s	u/s	Bronze Coin, AE/3/4 of Constantine 1 307/37AD. Obverse reading, CONSTANTINVS MAX. AVG. Reverse reads, GLORIA EXERCITVS, showing two soldiers either side of two standards. Condition good.	
29	12	14	Ferrous Object, (hobnail)?.	
30	12	14	Copper Alloy Object, wire or pin.	
31	17	128	Ferrous Object.too corroded for any identification.	

32	17	128	Ferrous Object, part of probable knife blade.	
33	122	/	Ferrous Object, iron nail.	
34	24		Ferrous Object, (hobnail)?.	
35	24		Ferrous Object, part of nail?.	
36	u/s	u/s	Bronze Coin, Dupondius?, worn smooth first to third century.	1/3 cent.
37	10/ 122	/	Ferrous Object, too corroded for any identification.	
38	u/s	u/s	Bronze Coin, AE/4 of Constantine 11. Obverse, legend obscured. Reverse, shows two soldiers standing either side of labarum. Legend unreadable.	337/40AD.

The Coins.

A total of nineteen coins was found during the excavations and through metal detecting. These were all Roman, dating from a period of 307AD to 380AD, except for two, a Dupodius? (SF 36), and a broken coin, probably of late 3rd century date,(SF 8).
A total of five coins was found in context, these are:
SF1, an AE/3 of Constantine 1 307-337AD, from fill 27/144, cut [146], a stone filled feature.
SF 2, a Centenionalis of Magnentius 350-353 AD, from fill (7), cut [6], a large, sunken, possibly structural feature.
SF 4, an AE/4 of Valentinian 1 364-375 AD, from fill 27/144, cut [146], the same context as SF 1.
SF 38, a AE/4 of Constantine 11 337-340 AD, this came from layer 10/122.
SF 10, probable coin of Constantine 1 307-337 AD (poor condition), from fill (31), cut [39].
The other fourteen coins were all unstratified, but give a good indication to how long the site was in use which, apart from SF 36, the Dupondius?, and SF 8, both probably being residual losses, puts a time span for the activity on the site of approximately 80 years, from 320-380 AD.

The Copper Alloy Finds

Six copper alloy finds were recovered.
SF 30, from (12) [14], consisting of copper alloy wire, may have formed part of a pin, although not enough of it survives for identification.
The other five finds were unstratified and include two medieval strap ends. SF 24 is in good condition, made of brass, with a trefoil end and an X pattern and dates to the 14th century. SF 25 is in poor condition , with corrosion damage and dates to the 14th century.
SF 18 is a bronze Roman brooch of the Dolphin type, 50-70 AD, with iron spring and pin missing, with remains of design on the bow. The catchplate is missing.
SF 19 is a medieval buckle, probably from a spur, with its iron pin fitting missing. This is dateable to the 14th-15th century.
SF 26 is probably a small horse harness leather fitting, with traces of a design on the front, and two small fitting lugs on reverse. Thought to be dated to the 13th-14th century.

The Lead Objects.

Two lead objects were found, both of which were unstratified. SF 7 is a large disc of lead with recesses around the sides, these have been found with the remains of pottery in these recesses, (especially on Roman sites) and could have been used to repair damaged pots, or for sealing.
SF 17 is classed as a spindle whorl, with concave sides and central hole. One side has a raised dot pattern, and on the reverse, a raised line design. This is thought to date to the13th-14th century (Egan and Pritchard, 1991).

The Iron Objects.

Eleven iron objects were located, all of which have suffered badly from corrosion. Out of these, eight were from archaeological contexts. The most interesting of these is part of an iron knife blade, SF 32, from possible sunken structural feature (17) [128]. The blade includes the remains of the tip.
All the other objects are nails, (including unstratified), or objects too poor for positive identification.

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The Roman Quernstones **by Patrick Marsden**

Three contexts produced quern fragments (see catalogue). All are typical of Roman rotary querns and are of a Millstone Grit source. Two upperstones and a lowerstone are represented as well as fragments of another quern.

Catalogue

1. Context 12. One fragment weighing 2.8 kg. Part of upperstone of rotary quern, maximum thickness *c.*8cm. Fine-grained Millstone Grit. Burnt after breakage.

2. Context 17. One fragment weighing 1.9 kg. Part of upperstone of rotary quern, *c.* 42 cm diameter, maximum thickness *c.*5.5 cm. Millstone Grit.

3. Context 31. Four fragments weighing 3.6 kg. One lowerstone of rotary quern, maximum thickness *c.*4.5 cm. Remaining three rotary quern fragments possibly all from same quern, maximum thickness *c.*5 cm, two with evidence of post-breakage burning.

The Romano-British Tile **by Nicholas J. Cooper**

Seven fragments of tile, weighing 630g, were retrieved from the excavations. Three joining fragments of a tegula (flat flanged) roof tile (520g) came from (17), along with two other fragments, possibly also from tegulae (70g).
Two unclassified fragments were recovered, one from (24), weighing 30g and another, unstratified, weighing 10g.
All fragments were manufactured in an orange clay fabric, containing abundant rounded quartz sand up to 1mm, irregular calcareous inclusions up to 3mm, occasional ironstone up to 1mm and rare, larger quartz pebbles up to 5mm.

The Charred Plant Remains **by Wayne Jarvis**

Introduction

Sampling of excavated features was carried out by ULAS in order to collect carbonised plant material. Charred plant remains of cereals, other seeds and plant remains can provide evidence for food production and consumption, past agricultural practices, and environmental information.

Methods

Samples were selected on a judgmental basis from discrete datable contexts of good potential for preservation of remains (e.g. charcoal was visible). These were processed using flotation and sieving in a York Tank, with a 0.5mm flot sieve and 0.5mm tank mesh. Due to the clayey nature of the samples, sodium bicarbonate was added (40gm/l) to most of the samples whilst soaking to encourage particle separation (Van Horn and Murray 1982). Residues were air-dried and the coarse fractions (over 4mm) were sorted for finds, whilst subsamples of the fine fractions of flot-rich contexts were scanned using a x10 stereo microscope for remains (25% scanned of sample 11/2, 50% scanned of 14/1). The latter items are included in table 1 where relevant, and consisted of cereal grains and chaff, weed seeds, and occasional small animal bones. Flots were sorted using a x10 stereo microscope, the plant remains being identified at x20 according to their morphology and modern reference material. The remains are seeds in the broad sense, and were counted and tabulated (table 1); names follow Stace (1991).

Results

Eight contexts were sieved, with a total sample volume of 97 litres (114.2 kg.). Of these, 7 samples were selected for further analysis based on the richness of the flots, and the significance of the features from which they were collected. Samples 5/1 and 5/2 were collated in the results. A total of 715 carbonised plant items were identified in the samples (table 1). 143 Cereal grains were identified, including the glume wheat *Triticum spelta* (spelt), and hulled barley, *Hordeum vulgare*. Because of the poor state of preservation, most of the cereals could not be identified to species however, and many of the wheat grains could be either *T. spelta* or *T. dicoccum* (emmer). Chaff was commonly represented (287 items), including evidence for the glume wheat, spelt (*Triticum spelta*), and barley *(Hordeum* sp.). Again, most of the chaff could only be identified as being from either glume wheat species (*T. dicoccum/spelta*). Occasional wheat and barley awns were recognised, and culm, root and stem fragments were found which may be from the cereals. The latter are not included in any calculations, however.

Charred weed seeds (250 items) included *Chenopodium album* type (fat-hen), *Chenopodium* sp. (goose foot), *Persicaria*, Asteraceae (daisy family), *Raphanus raphanistrum* (wild radish), and other weeds in smaller numbers. Additionally, several uncharred seeds were identified, including duckweed (*Lemna)*, fat-hen (*Chenopodium album* type), stitchwort/chickweed (*Stellaria* type), and *Fumaria* (fumatory). Of the uncharred items, only the duckweed seeds may be archaeological (Monckton 1992).

Area 2

Corndrier lining 80 (79) Late Roman
Sample 11/2 : This is much richer in density of items and charcoal than the other samples, and included 136 cereal grains, 213 chaff items, and 211 weed seeds. Both glume wheats, *Triticum* sp., and hulled barley, *Hordeum vulgare*, are represented, however poor preservation preclude identification further. The weeds are again characteristic of arable assemblages, with *Chenopodium album* type (fat hen) and *Chenopodium* sp. (goose foot) being commonplace.

Corndrier 80 (30)
Sample 12: This context, the upper fill of the suggested corn drier, contained a relatively low density of items, including glume wheat grains and chaff, barley chaff, and charred weed seeds.

Oval feature, fill over cobbles 146 (144)
Sample 13/1: This possible hearth fill produced little carbonised material, although indeterminate cereal grain, chaff and weed seeds were present.

Sunken feature 128 (17) 3rd-4th Century
Sample 14/1: This feature was thought to be a floor surface, and the sample contained carbonised items of wheat grain and relatively frequent chaff (glume wheats), and some weed seeds.

Gully 69 (68) Roman
Sample 5/1 & 5/2: These samples from the ditch fill (68) included a single indeterminate cereal grain, and 11 items of *Triticum spelta* and *Triticum* sp. chaff. Identified weed seeds included *Danthonia (Sieglingia) decumbens* (heath grass), *Rumex* sp. (docks), *lemna* sp. (duckweed).

Area 1

Sunken feature 6 Late 4th Century
(7) Sample 10/1: Similar in composition to sample 5, this produced the odd cereal grain and chaff item, together with charred weed seeds typical of ancient arable fields.

Discussion

In samples with large numbers of remains, it is possible to compare the relative proportions of carbonised plant materials to infer agricultural practices. This is because the preparation of a crop leaves behind differing residues dependant on the crop processing stage involved (Hillman 1981, 1984; Jones 1985). With the glume wheats (i.e. emmer and spelt), threshing leaves the grain still held firmly within the chaff (glumes), at which stage the cereal can be stored as spikelets. To use the grain for food requires a further stage of parching and pounding to free off the glumes, followed by fine sieving to separate the chaff and weed seeds from the grain. The waste by-product (chaff and weed seeds) may have been used for tinder or animal fodder. These stages are reflected by differing proportions of grain, chaff and weed seeds in the assemblage.

Evidence for the initial threshing of grain is rarely found because the straw is a useful product and would not normally come into contact with fire. However, on this site there are a number of sunken cobbled floors, which may have been used for threshing considering the presence of the corn drier on the site.

In sample 11/2 from the corn drier there is a noticeably high density of carbonised plant material (over 70 items/litre), and a greater proportion of grain in the sample than other samples from the site. The ratio of glumes to wheat grains is 1.3 (151:112), which is close to the ratio in the unprocessed crop (1:1). It may be that this sample represents actual wheat spikelets, i.e. the crop after initial threshing. Spikelets are a convenient way of storing grain (Moffett 1991), which could then be processed in batches as required. The spikelet 'store' would consist of roughly equal proportions of glumes and grains, along with large arable weed seeds which would only be sorted out in a later crop processing stage. As the sample proportions for 11/2 are weed seeds 44%, wheat grain 24%, and chaff 32%, it seems likely that this sample represents a part processed crop. Prior to consumption, the crop would then need to be parched, pounded and sieved to remove the chaff and weed seeds, and it is likely that feature [80] was used for this parching. Alternatively, and less likely, is that sample 11/2 represents a mixture of 'spilled' cleaned crop, with some chaff and weed seed by-products which are known to have been used as kindling in corn driers (van der Veen 1989). However, the ratio of glumes to wheat grains is close to 1, which would be unlikely to occur by chance. Either way, the archaeobotanical evidence supports the other archaeological evidence that the easily recognisable corn driers were used for processing grain. There is no evidence from Appleby Magna, however, that the corn drier was used for the malting of grain, as there was little germinated grain (less than 2%). On the other hand, the samples here reflect only the final use of a feature, and may not therefore indicate their original purpose.

Most of the samples from Appleby Magna are predominantly chaff and weed seed rich, and these are waste removed from the cereal by fine sieving after parching and pounding to dehusk the grain. This type of waste is also likely to occur in small quantities on a site where grain was being consumed. Here these samples probably represent a scatter (<10 items per litre) of redeposited material from crop processing on site, which has accumulated in the features on the site. The cleaned grain may have been for consumption nearby or have been transported elsewhere.

The weed seeds are predominantly flora of disturbed ground, and commonly occur as arable weeds in carbonised assemblages. For example, brome grass and fat-hen have relatively large seeds that are often found with cereal grain (Jones 1981). The occurrence of a few duckweed seeds in sample 5 suggest that this ditch feature may have held standing water at this time, as these seeds may well be contemporary rather than intrusive (Monckton 1992). It is unclear whether the crop was locally although all the weed seeds found could grow on such soils as are found in the area.

Conclusion

The rich sample 11/2 from corn drier 80 (79) provides evidence for on-site cereal processing of both wheat and possibly barley in the feature. This processing involved the parching of wheat, possibly in the form of spikelets, which would then have been pounded and sieved to prepare the crop for consumption. It is possible that the site was involved in the production and processing of grain in sufficient quantities to provide a surplus for trade or exchange.

A general spread of carbonised material was found in all of the sampled contexts. This provides evidence for the presence of spelt wheat and hulled barley. The high proportion of chaff and weed seeds to grain suggests that this is probably waste from the crop processing carried out nearby, but these items are derived material and not in situ. The seeds found are typical arable weeds, and commonly occur in archaeobotanical assemblages. It is likely that they represent contaminants of the crops brought in with the cereals.

Acknowledgements

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Table 1. Charred Plant Macrofossils from Appleby Magna, Leicestershire.

Sample No.	5/1&	10/1	11/2	12	13/1	14/1	
Cut No.	69	6	80	80	146	128	
Context	68	7	79	30	144	17	
Context type	Ditch	Floor	C.D.	C.D.	Cobble	Floor?	
GRAINS							
Triticum cf. *Spelta*		1					Spelt wheat
Triticum dicoccum/spelta			19	3			Emmer/Spelt wheat
Triticum sp.			2			1	Wheat
Hordeum vulgare			1				Hulled Barley
Hordeum sp.			3				Barley
Cereal indet.	1		108	1	1	2	Cereal
Cereal/Poaceae			3	1		1	Cereal/Grass
Embryos			4				Embryos
Cereal sprouts			2				Cereal sprouts
Cereal fragments			14				Cereal fragments
CHAFF							
Triticum spelta L. glume			16			2	Spelt
Triticum cf. *Spelta* L. glume	1		11		2	2	Spelt
T. dicoccum/spelta glume	3	2	118	7		14	Glume wheat
T. dicoccum/spelta glume frag	4		51		19	4	"
T. spelta/dicoccum spikelet fork	1		2				Spelt/Emmer wheat
T. cf. *Spelta* rachis frag					1		cf. Spelt wheat
T. dicoccum/spelta rachis frag	2		5				Spelt/Emmer wheat
Hordeum sp. Rachis frag			2	1			Barley
Indet. Rachis frag				1	8		
T. spelta spikelet			1				Spelt wheat
Hordeum awn frag			4				Barley
Triticum awn frag			3				Wheat
WILD PLANTS							
Chenopodium album type			76	1			Fat-hen
Chenopodium sp.			41	5			Goose foot
Medicago/lotus/Trifolium			5				Medick/Lotus/Clov
Tripleurospermum inodorum			7			3	Scentless mayweed
Danthonia decumbens (L.) DC	1					1	Heath grass
Raphanus raphanistrum L. pod			11				Wild radish
Bromus hordeaceus/secalinus			1			1	Brome grass
Rumex sp.	1	1	3	1	1	1	Docks
Rumex acetosella L.			3				Sheep's sorrel
Polygonum cf. *Aviculare*				1			Knotgrass
Fallopia convolvulus L.			5				Black bindweed
Persicaria sp.			20	1		2	Persicaria
Asteraceae (small)			15	5	1		Daisies
Asteraceae (large)			1				Daisies
Lemna (uncharred)	2						Duckweed
Vicia/Lathyrus						1	Vetch/Vetchling
Indet. Seed (small)			4				Seeds
Indet. Seed	2			2			"
Small grass	1		6				
Large grass		1	13	1	1	1	
Uncharred seed	5	6		4	4	4	Seeds
OTHER							
Culm node		1					
Stem fragment	1		3			2	
Root fragment						2	
Unidentified charred item						1	
Charcoal frequency in flot	+	++	+++	+	++	++	see key (below)
TOTAL	20	6	583	31	34	41	(Items)
Vol. Sample	12	6	8	8	6	5	(Litres)
Vol. Flot	30	16	60	20	16	20	(mls)
%age flot sorted	66	all	25	50	50	50	
Items/litre	2	1	73	4	6	8	(Items/litre)

Key to table 1: Charcoal frequency:- + present, ++ moderate, +++ abundant.
Remains are seeds in the broad sense unless described otherwise.

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The Animal Bone **by Jennifer Browning**

Summary

During excavations at Appleby Magna, 291 fragments of animal bone were recovered from contexts of late Roman date. The remains of cattle, sheep, horse, pig, dog, cat and roe deer were identified in the assemblage. The cattle bones clearly dominated the assemblage, forming around 60% of the identified bone.

Introduction

A total of 291 bone fragments was recovered from contexts at Appleby Magna, consisting of 233 fragments were recovered by hand, and 58 from sieved samples. Most of the material is in fair condition, although quite a high degree of fragmentation had occurred.

Methodology

The bone was identified using comparative material from the reference collection at the University of Leicester. It was not possible to distinguish sheep from goat in the assemblage so the term "sheep" is used throughout to mean sheep and/or goat. Bone element, species, state of fusion, completeness and marks or damage on the bones were recorded to elicit information on elements recovered, species proportions and age (epiphyseal fusion and toothwear after Grant 1975).

Three methods were used to calculate the species proportions of the assemblage. Firstly, a simple fragment count of every bone that can be identified to species, excluding only ribs and undiagnostic skull fragments (diagnostic fragments typically include the upper and lower orbits, petrous temporal and horncore). This method often over-emphasises the importance of larger mammals, whose bones tend to fragment into more pieces than those of smaller animals. In an attempt to reduce this bias, a restricted fragment count was carried out using the epiphyses only method outlined in Grant (1975). To summarise, this method counts only those bones with a fusion surface present. A whole bone has two fusion surfaces and will therefore be counted twice except in the case of phalanges which are rarely broken. Adjustments are made where different species have different numbers of the same bone; for example, the number of horse phalanges is doubled in order to make the results comparable to those of cattle, sheep and pig who have two on each foot. Similarly, sheep and cattle have one metapodial on each leg, while a pig has four, so the abaxials are discounted and the remainder halved. Both methods have advantages and disadvantages; for example while the "epiphyses only" method is designed to combat the bias against smaller animals, if a species is represented only by a bone without an epiphysis then it will not be shown in the data at all.

Results

A total of 291 fragments was recovered, of which 38% were positively identifiable to species. The remainder consisted mainly of undiagnostic shaft fragments, rib fragments and vertebrae and were classified, where possible, as small, medium or large mammal. The table below shows that the large mammal bones, although not diagnostic enough to be assigned to species, comprised a significant proportion (1/5) of the animal bone assemblage.

Species	Fragment Number	Percentage of total
Cattle	65	22.3
Horse	1	0.3
Sheep/Goat	30	10.3
Pig	8	2.7
Dog	2	0.7
Cat	1	0.3
Deer	1	0.3
Large mammal	57	19.6
Medium mammal	33	11.3
Small mammal	2	0.7
Unidentified	91	31.3
Total	**291**	**100**

Table 1: A breakdown of the composition of the assemblage.

The chart below illustrates the results of both the fragment and the epiphyses count, counting only bones that were assigned to species. Both counts demonstrate clearly that cattle bones dominate the assemblage, comprising around 60% of the total number of identified bones. Sheep is the second most frequently occurring species but by a significant margin. Dog, deer, cat, pig, deer and horse are each represented by a very small number of bones.

Chart 1: A Comparison of the Results of the Fragment and the Epiphyses Count.

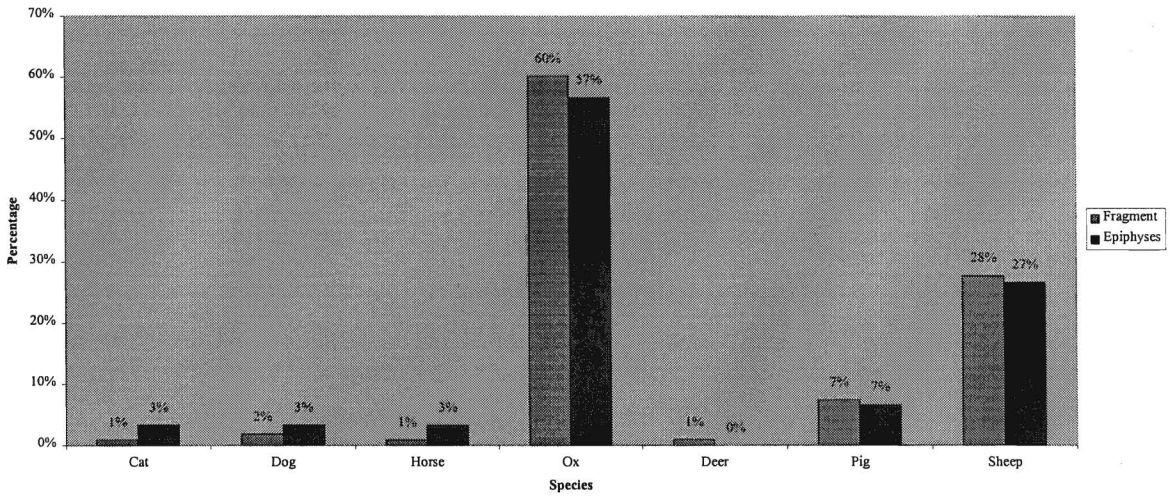

Chart 1 :A comparison of the results of the Fragment and the Epiphysis count.

Part of an ox cranium was recovered from the fill of gully (110). The entire upper portion was present, including part of the upper orbits, frontal and parietal. The maxilla, facial bones and occipital were missing. The cranium was badly cracked and broken, although still retained its original shape, supported by the fill. No signs of butchery were observed. It seems likely that it was deliberately deposited. The animal was horned and, although no measurements could be taken, appeared to have been of the short-horned variety.

Very little information on age profiles was obtained from the assemblage. As the epiphyses count demonstrates, few bones with epiphyses were recovered. Of 19 cattle epiphyses only 4 were unfused. These were the distal radius which usually fuses between 12-18 months, distal femur, which fuses at 31/2 to 4 years and 2 distal metapodials which would be fused by 3 years, suggesting that the animals to which these bones belonged would not have survived beyond these periods (after Silver 1969). Only 2 unfused epiphyses of sheep were present, distal metacarpal and metatarsal, which fused at 18-24 months and 20 –28 months respectively (after Silver 1969). Although the actual ages at which bones fuse may have altered in the modern period (due to selective breeding designed to bring animals to maturity faster) this is unlikely to have affected the sequence of bone fusion. Similarly very little information could be elicited from looking at toothwear. Only 2 cattle mandibles were available for analysis, 2 for pig and 4 for sheep. This method of calculating relative age was designed for use on a body of data rather than for the ageing of individual mandibles.

Nine instances of butchery were observed on bones from 3 different contexts, (12), (130) and (145). All but one of the butchered bones belonged to cattle. The exception was a fragment of antler, roe deer size that had been cut through at an oblique angle (12). Two cattle bones from the same context, an astragalus and cervical vertebrae were also

butchered. Two other astragalii, in contexts (130) and (145), were found to have been butchered in a similar way, through the joint. This was probably to remove the lower leg, which would bear less meat. Similarly the other butchery marks tended to be found around an articulation, for example the distal articulation of a scapula, context (145), had been removed. Fine cut marks were noted on a cattle mandible, possibly inflicted during removal of the hide.

Most of the 56 bone fragments recovered from the coarse fraction consisted of small fragments of large and medium mammal bones. Two rodent teeth were recovered from the fine fraction, an incisor and a molar, possibly mouse and vole respectively.

Conclusion

The small size and general nature of the assemblage means that few conclusions can be drawn but some tentative observations are as follows. There is a paucity of bird and small mammal bones, which might have featured more in the sieved sample. There is a high proportion of cattle bones, particularly compared with those of sheep and pig. Studies of Iron Age and Roman sites has demonstrated that there is a general shift from a sheep-based husbandry in the Iron Age to an economy dominated by cattle in the Roman period (King 1978, 211). The frequency of the larger mammals, particularly cattle, is confirmed by the high proportion of unidentifiable fragments from large mammal bones. The ox skull was placed in a gully not much wider than itself, suggesting deliberate deposition, especially given the lack of further skeletal elements associated with it.

The presence of a butchered roe deer antler may be suggestive of hunting or antler working. It is perhaps worth commenting on the small proportion of pig bones deriving from the assemblage. These are often indicators of change in dietary preferences, in addition to the utilisation of woodland habitats and are common in late Roman contexts. However, the paucity of them at Appleby Magna may suggest association with a less Romanised settlement. King observed that in comparisons of 'native' with Roman settlements, the 'native' often have less than 10% pig bones while the Roman have more than 10% (King 1978, 216). The dog and cat bones may have derived from domestic or scavenging animals.

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Table 2: List of contexts containing animal bone

Context	Frags	Species	Element
3	1	Sheep	LM1/2
3	1	Sheep	mand
3	1	Sheep	LP4
3	1	Ox	scap
3	1	Shsize	tib
3	1	Medium	rib
3	2	Unidentified	frgs
4	1	Sheep	UM1/2
4	1	Ox	mand
7	1	Ox	UM1/2
7	5	Ox	UM1/2
10	1	Large	rib
10	5	Unidentified	frgs
10	1	Ox	cerv
10	1	Shsize	tib
10	1	Ox	phal 1
10	1	Medium	rib
11	1	Ox	metap
11	1	Pig	max
12	2	Large	frags
12	1	Large	rib
12	1	Ox	phal 1
12	1	Ox	UM1/2
12	1	Sheep	UM1/2
12	2	Sheep	LM1/2
12	1	Medium	incisor
12	1	Pig	canine
12	1	Ox	cerv
12	1	Sheep	mand
12	1	Ox	tib
12	4	Large	frgs
12	1	Sheep	metat
12	1	Sheep	mand
12	1	Ox	scap
12	1	Large	pelvis
12	1	Pig	mand
12	1	Ox	metat
12	1	Sheep	UM1/2
12	3	Large	shft frgs
12	1	Ox	UP4
12	1	Pig	mand
12	2	Unidentified	frgs
12	1	roe size	antler frag
12	2	Unidentified	frgs
12	1	Ox	carpal
12	1	Ox	astrag
12	2	Unidentified	frgs
12	1	Ox	cerv
12	1	Cat	metat
12	2	Ox	metac
12	1	Ox	phal 1
14	1	Pig	mand
14	1	Pig	tooth
17	5	Ox	horncore
17	1	Sheep	LM3
17	1	Pig	canine

17	1	Sheep	tib
17	2	Medium	shft frgs
22	1	Ox	M u/l
23	10	Large	shft frgs
23	1	Sheep	LM1/2
23	1	Sheep	LP3/4
23	1	Sheep	mand
23	1	Ox	LM1/2
23	1	Sheep	metat
23	2	Large	tth
23	1	Sheep	mand
24	1	Sheep	UM1/2
24	1	Ox	cerv
24	1	Ox	molar
24	1	Ox	thorac
24	9	Unidentified	frgs
24	1	Ox	tth
24	1	Ox	tth
24	1	Large	shft frgs
24	2	Medium	shft frgs
24	2	Burnt	shft frgs
24	1	Ox	UM1/2
24	1	Ox	mand
24	2	Large	frgs
24	1	Ox	LP2/3
24	1	Medium	mand
24	4	Unidentified	burnt frgs
24	1	Ox	rad
24	1	Ox	carp
24	1	Large	frg
24	1	Dog	ulna
27	1	Large	rib
27	1	Sheep	mand
27	1	Sheep size	mand
28	1	Ox	metac
28	1	Large	rib
28	1	Ox	metap
28	1	Sheep	mand
28	1	Large	shft frg
28	2	Large	frg
28	1	Unidentified	frg
29	3	Medium	shft frg
29	1	Large	frg
30	1	Sheep	rad
68	6	Unidentified	frgs
68	1	Medium	shft frg
68	1	Ox	tth frg
75	1	large	frag
85	1	Sheep	metat
85	1	Ox	metac
86	1	Unidentified	shft frg
87	1	Medium	rib
87	2	Large	frgs
100	1	Horse	tib
102	1	Ox	tooth
102	1	Unidentified	frg
104	1	Sheep	mand
108	1	Unidentified	shft frg
110	1	Ox	cran
111	1	Sheep	astrag

111	1	Sheep	UM1/2
111	1	Ox	lumb
111	3	Unidentified	shft frgs
111	6	Medium	sk frgs
122	1	Medium	rib
122	7	Unidentified	frgs
122	1	Pig	rad
122	3	Large	rib
122	1	Medium	thorac
122	6	Unidentified	frgs
122	3	Unidentified	sk frgs
122	1	Medium	vert frg
129	1	Ox	mand
129	1	Sheep	metac
130	1	Ox	mand
130	1	Ox	mand
130	1	Ox	pelv
130	1	Ox	femur
130	1	Ox	femur
130	1	Large	rib
130	1	Ox	tib
130	1	Ox	tib
130	1	Ox	pelv
130	2	Ox	mand
130	1	Dog	ulna
130	8	large	frgs
130	1	Ox	fem
130	3	Large	rib
130	14	Unidentified	frgs
130	1	Large	rib
130	1	Sheep	metat
130	10	Unidentified	frgs
130	1	Large	mand
144	1	Sheep	max
144	6	Unidentified	frgs
144	2	Medium	frgs
144	1	Medium	lumb
145	1	Ox	metac
145	1	Ox	scap
145	1	Ox	astrag
145	1	Unidentified	frg
07	1	Unidentified	frg
07	1	Burnt	frg
17	1	Unidentified	frg
17	3	Medium	shft frgs
17	1	sm/med	shft frg

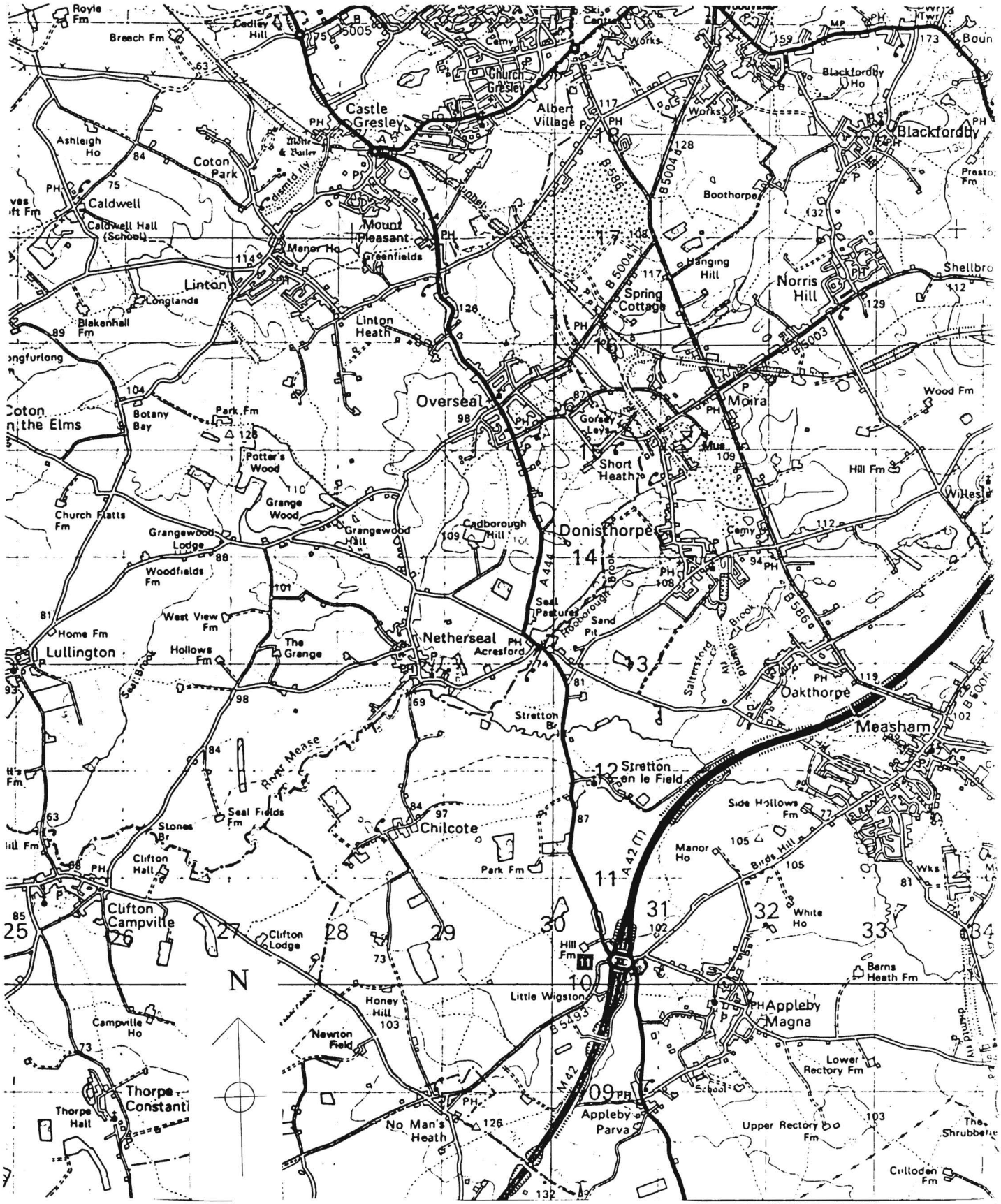


Fig. 1 Location of the site at Appleby Magna Scale 1:50000

Fig. 2 Location of the development area based on OS digital data Scale 1:2500

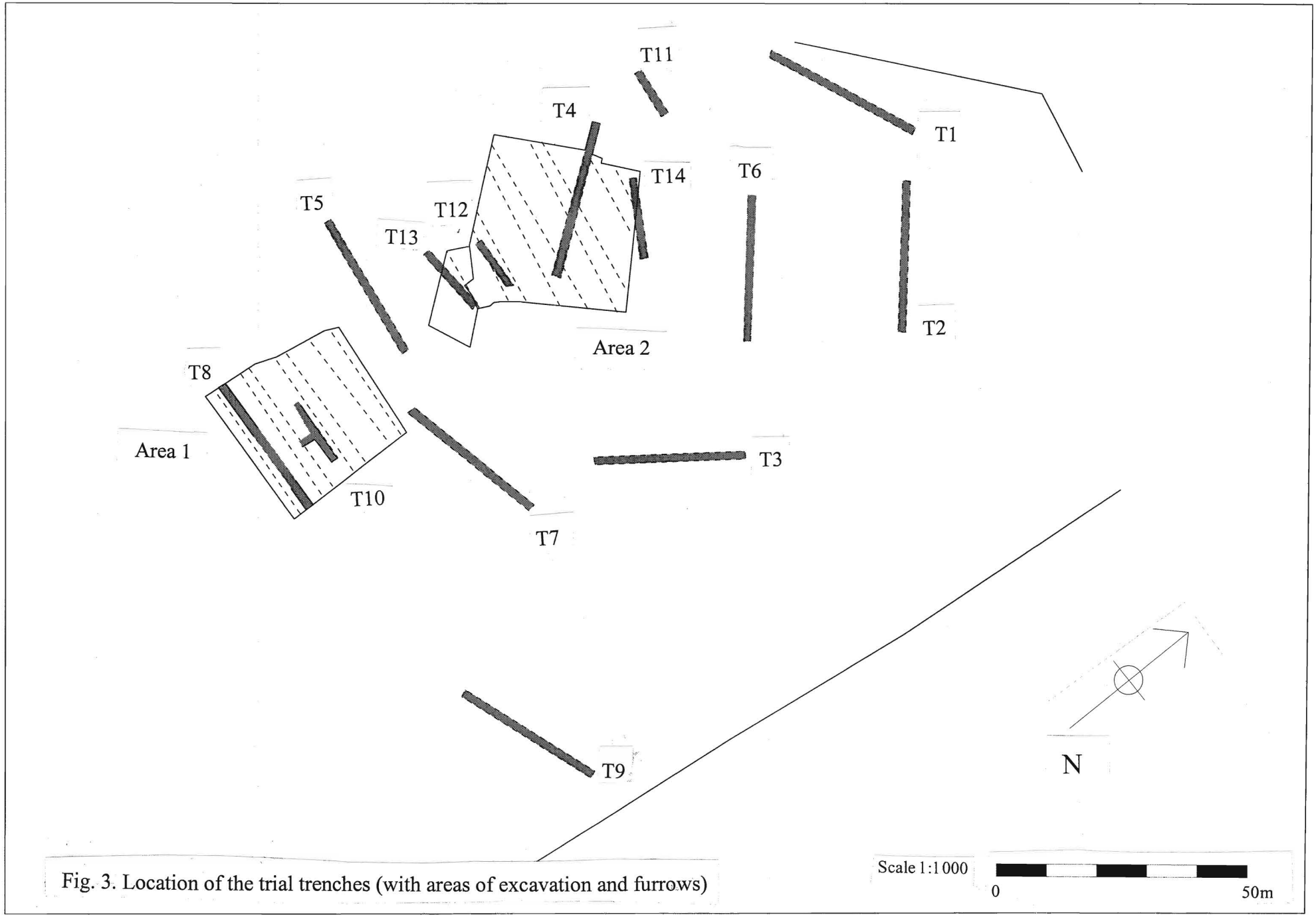


Fig. 3. Location of the trial trenches (with areas of excavation and furrows)

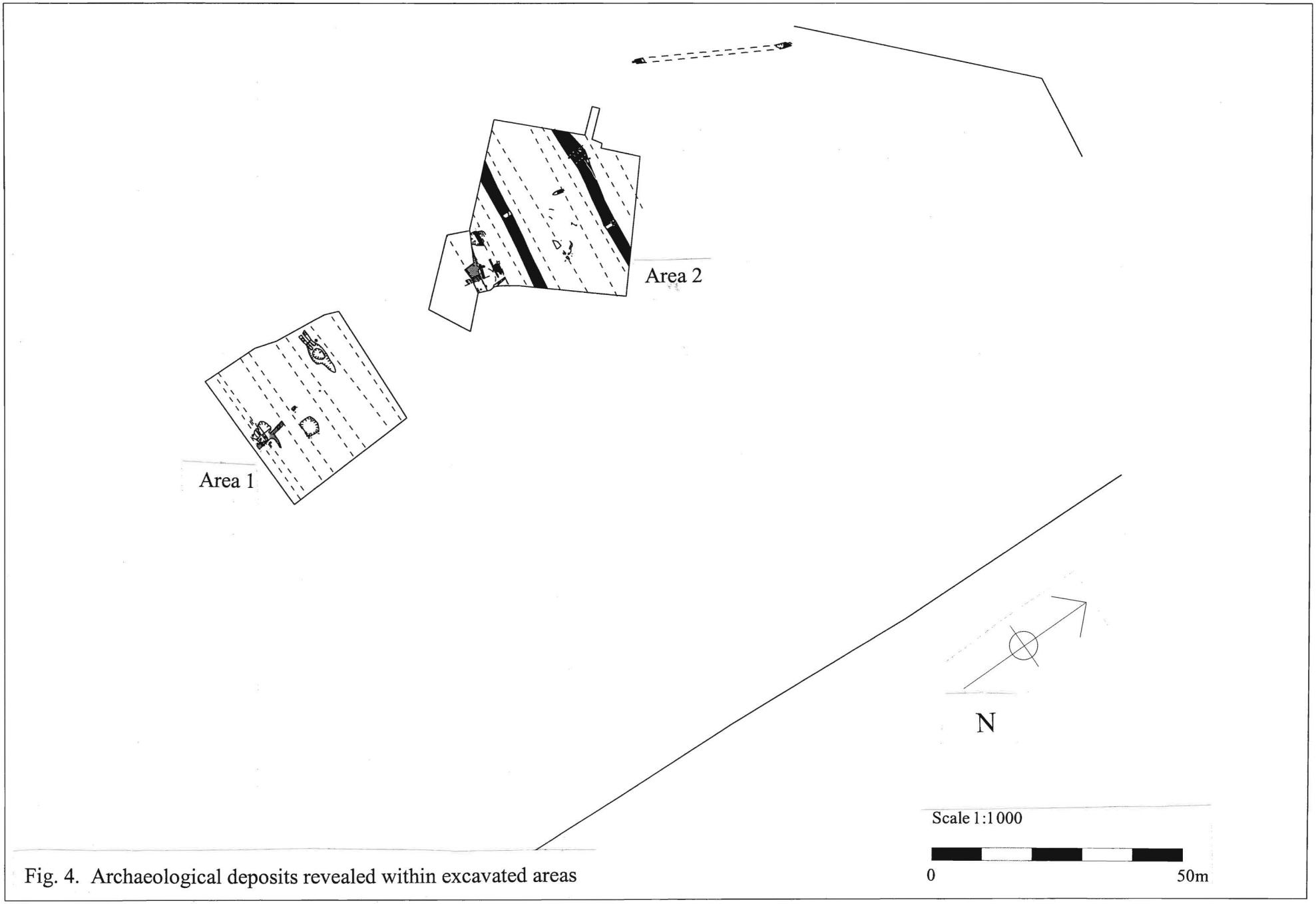


Fig. 4. Archaeological deposits revealed within excavated areas

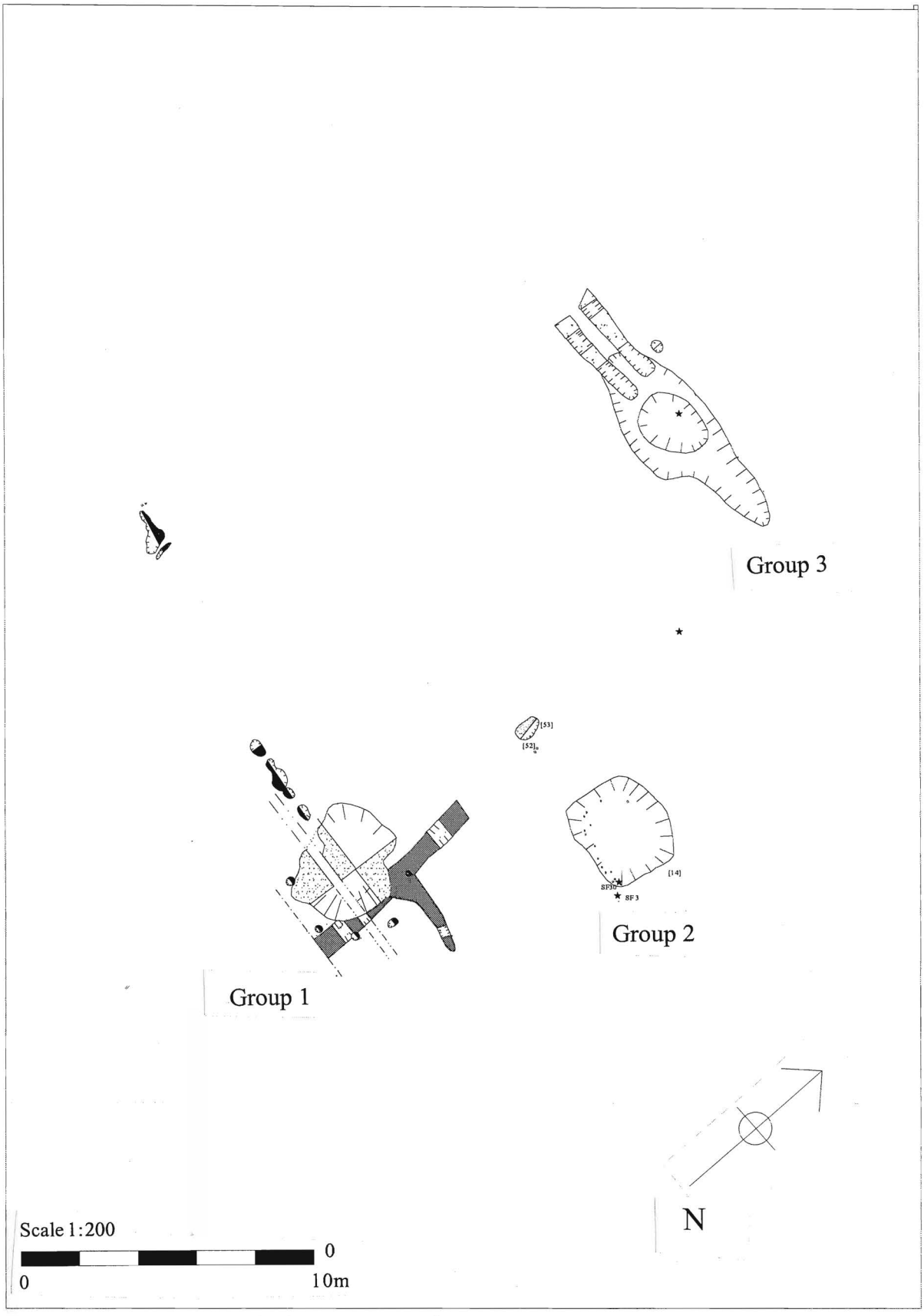


Fig. 5. Archaeological deposits within Area 1

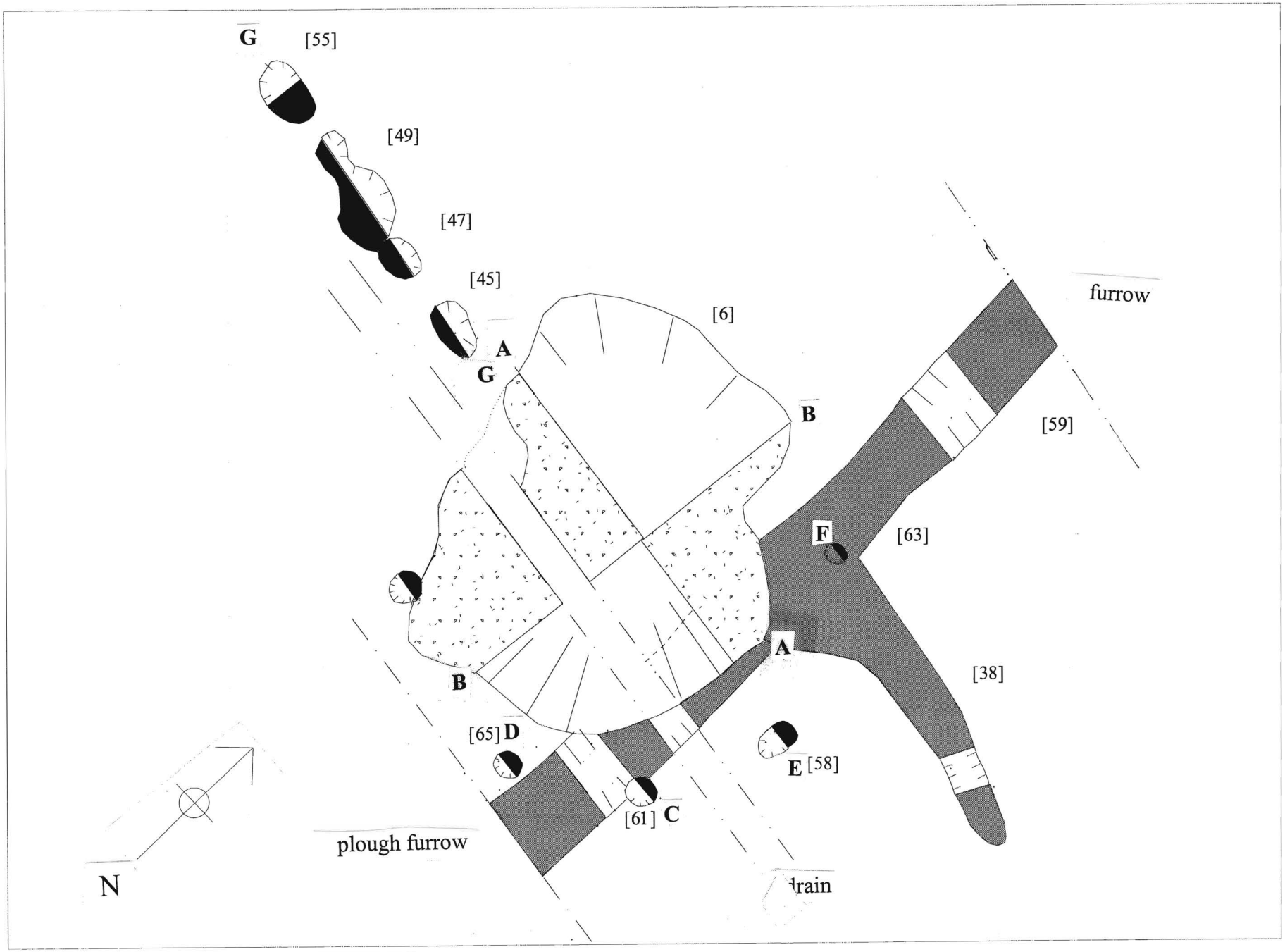


Fig. 6. Detail of Group 1 Scale 1:50

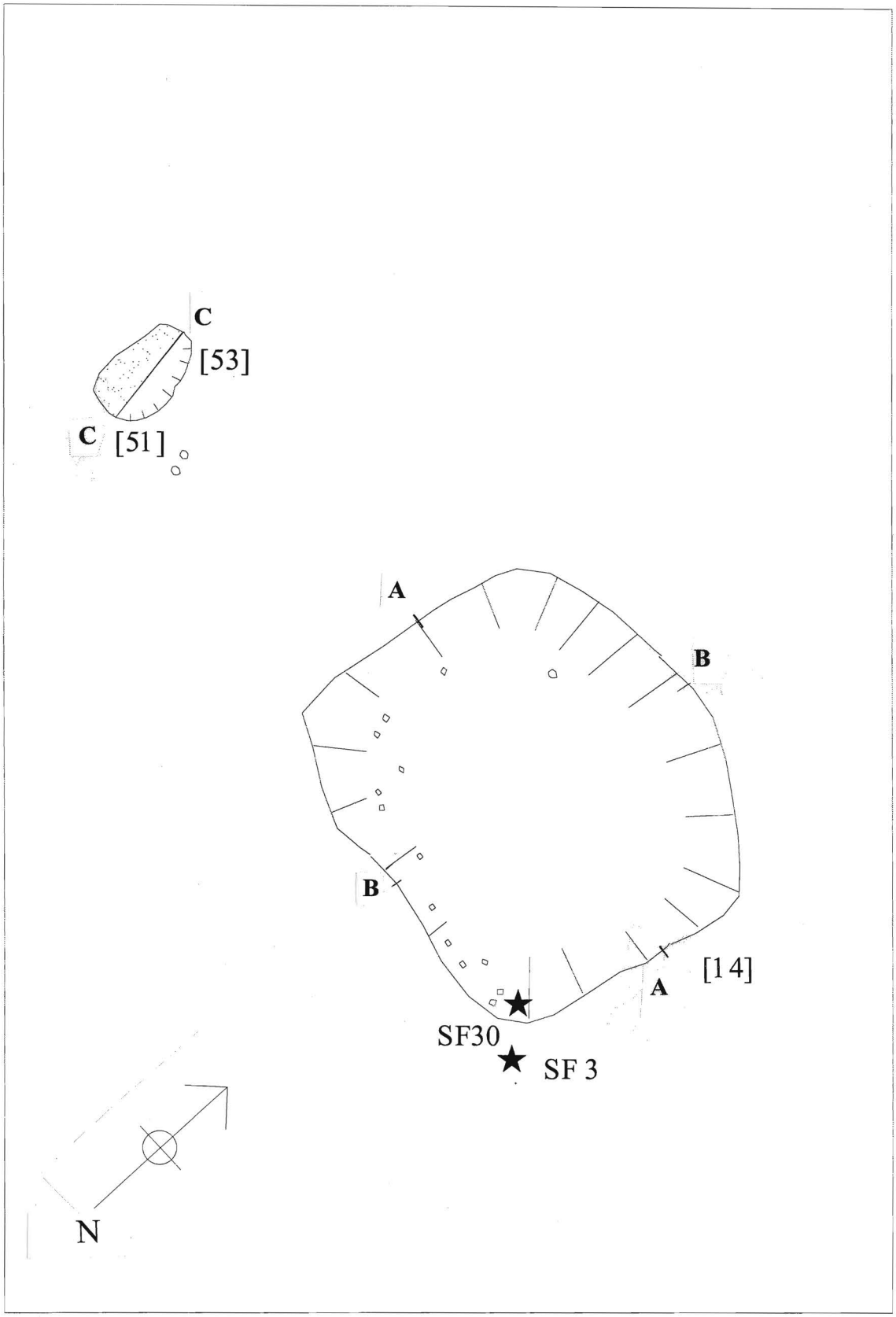


Fig. 7. Detail of Group 2 Scale 1:50

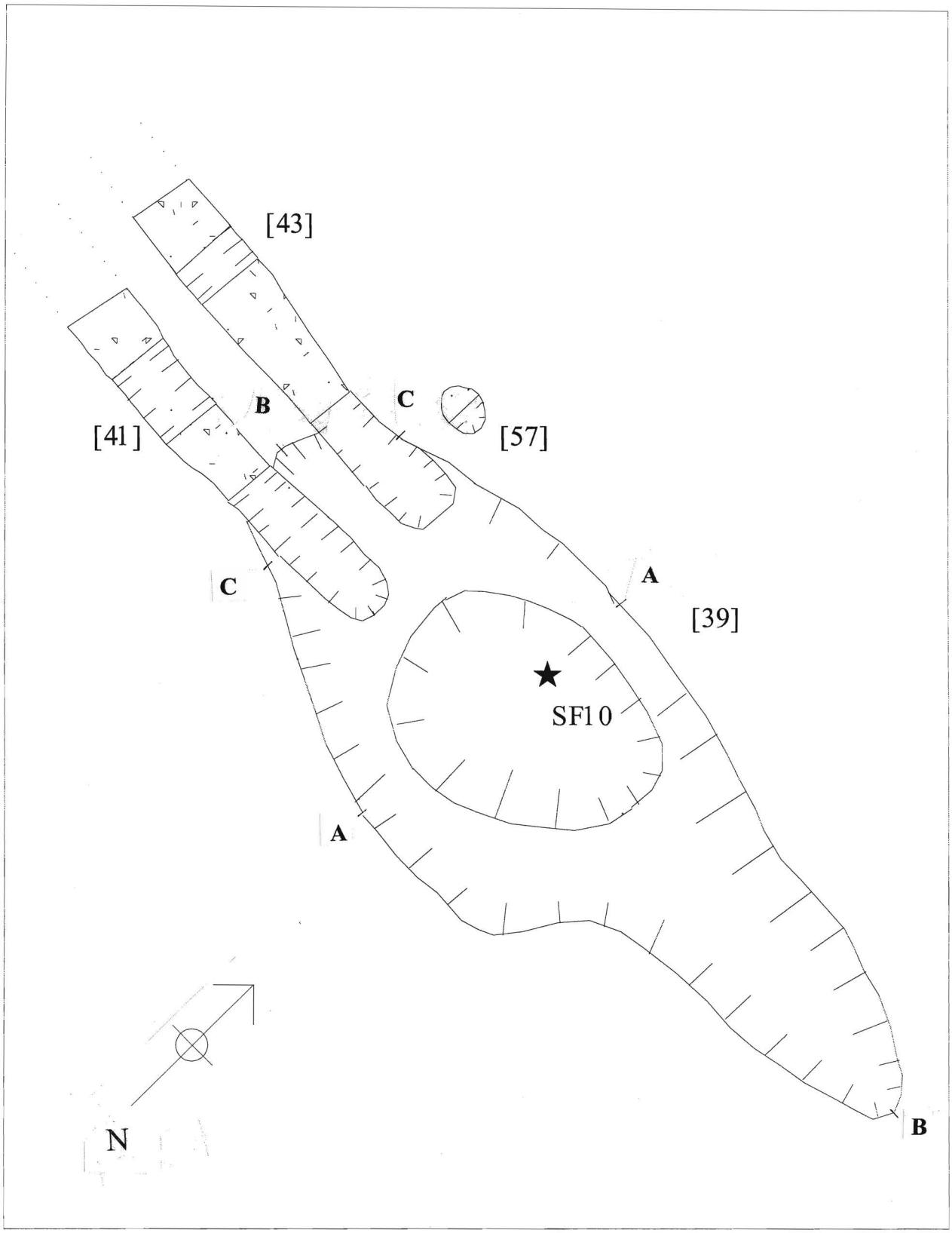


Fig. 8. Detail of Group 3 Scale 1:50

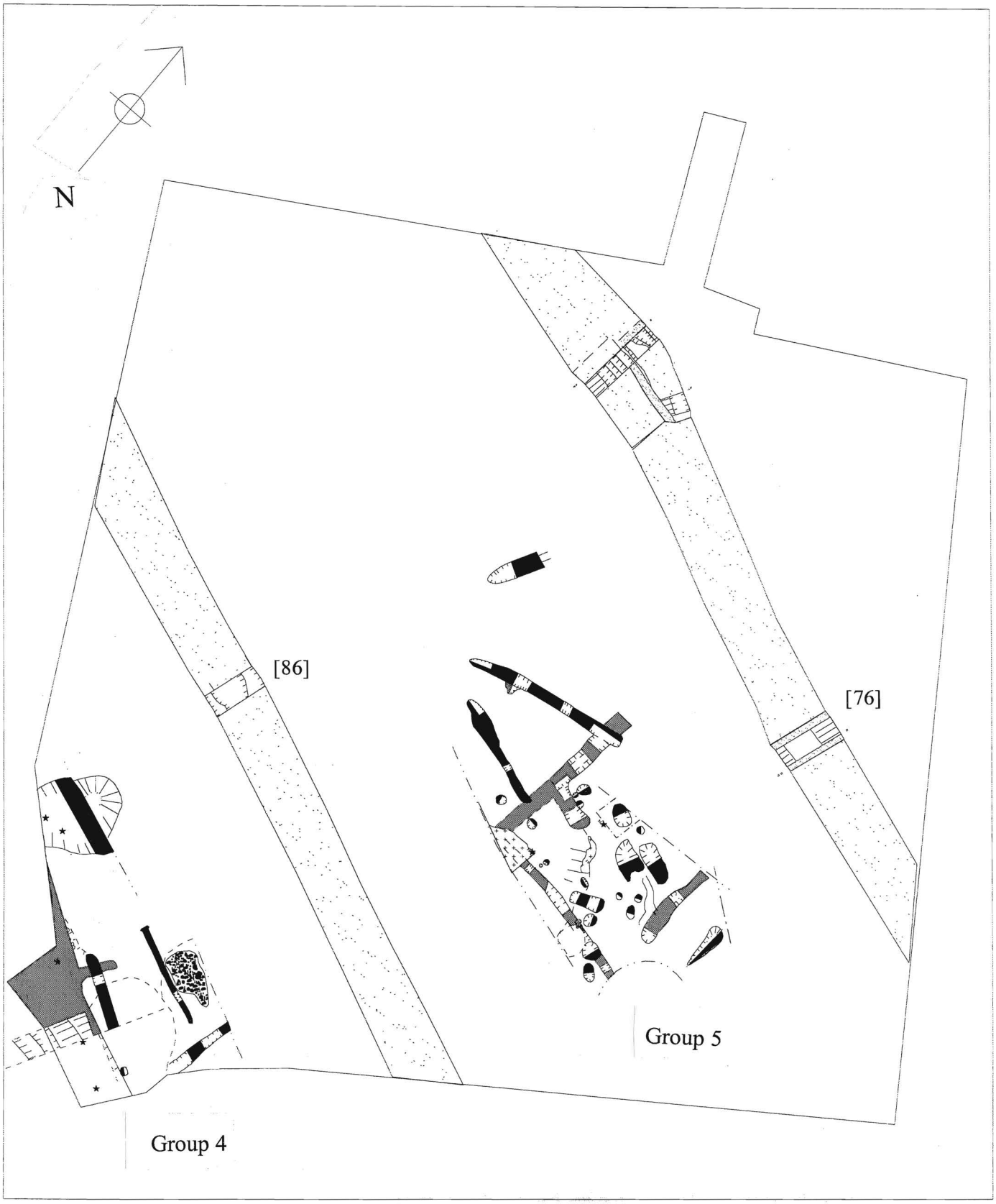


Fig. 9. Archaeological deposits within Area 2 with location of ditch sections (Fig. 19)

Scale 1:200

0 10m

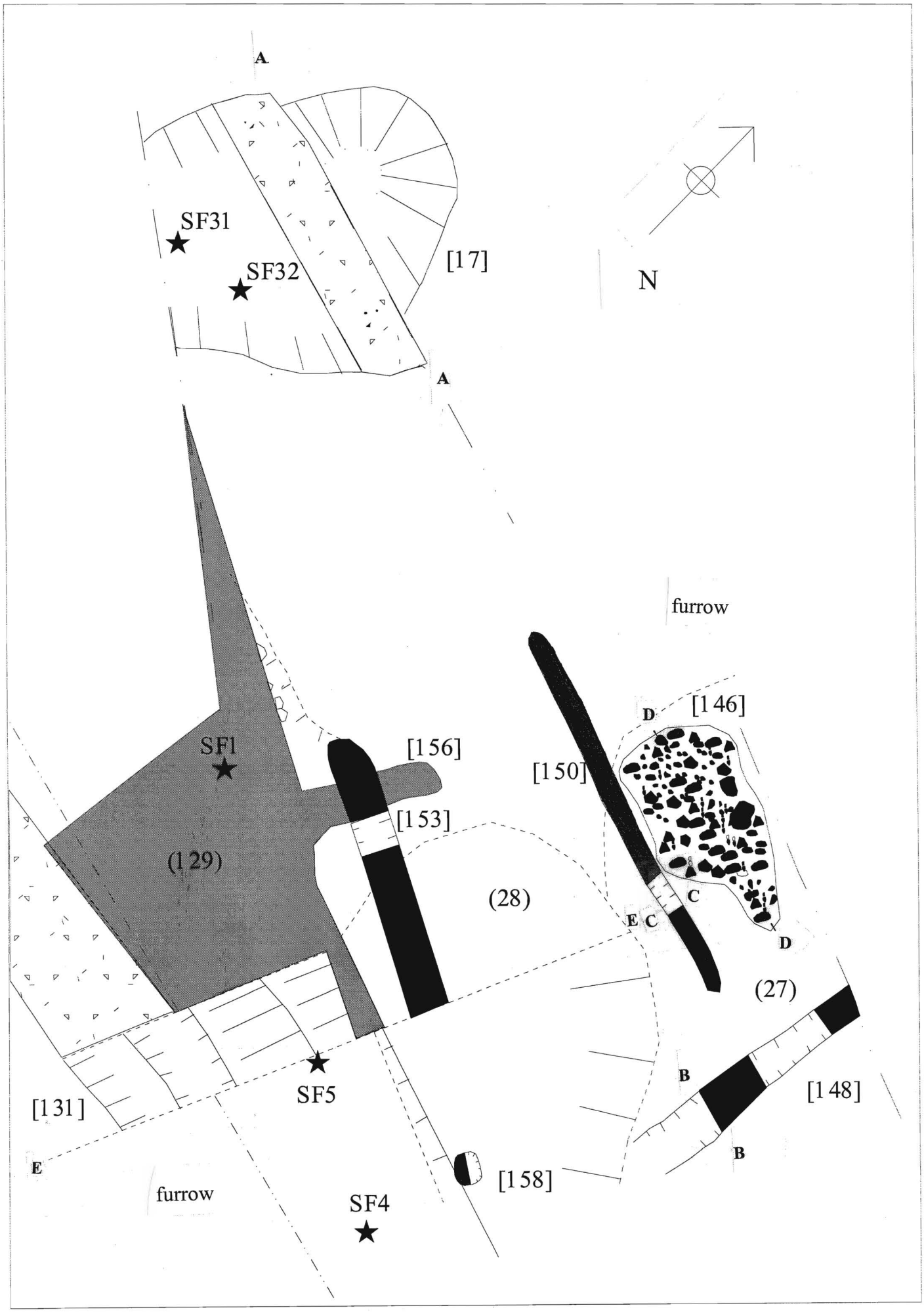


Fig. 10. Detail of Group 4 Scale 1:50

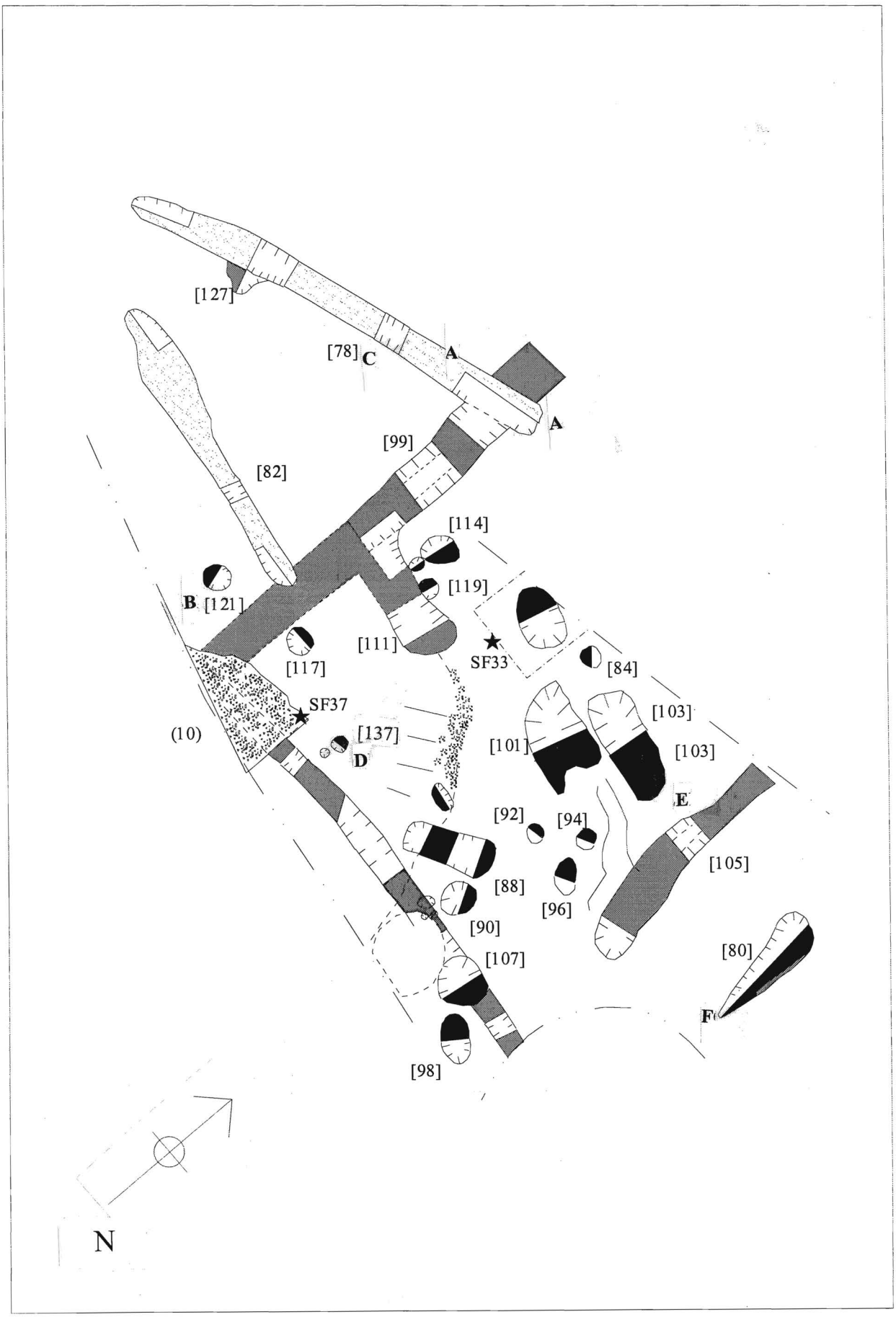
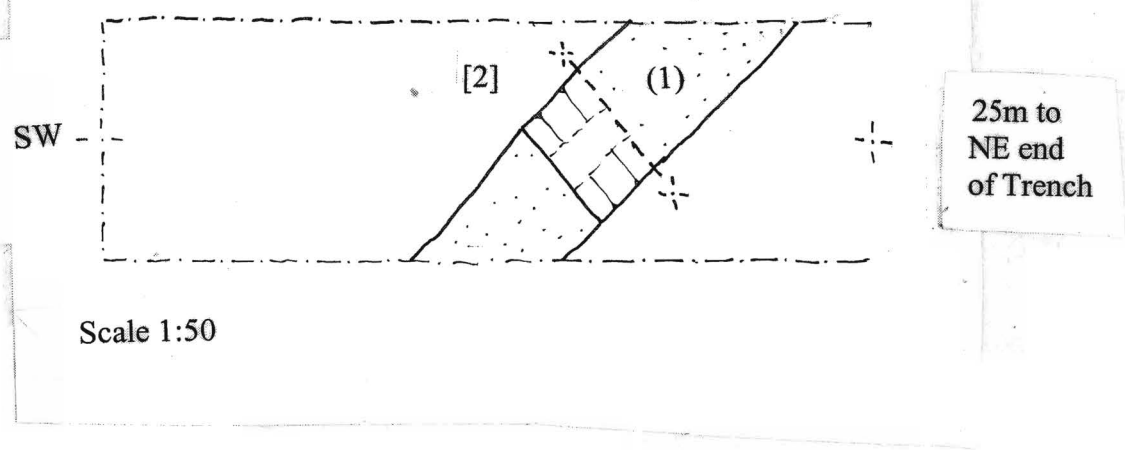


Fig. 11. Detail of Group 5 Scale 1:75



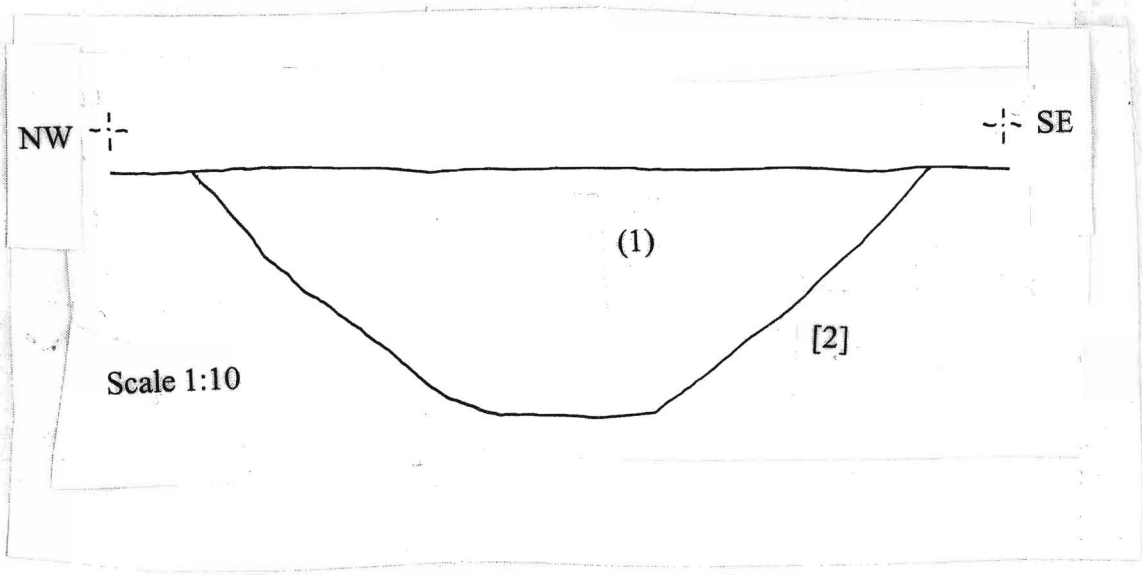


Fig. 12 Plan and section drawing of gully (1) [2] within Trench 1

Fig. 13 Plan of gully (15) [159] within Trench 11 Scale 1:50

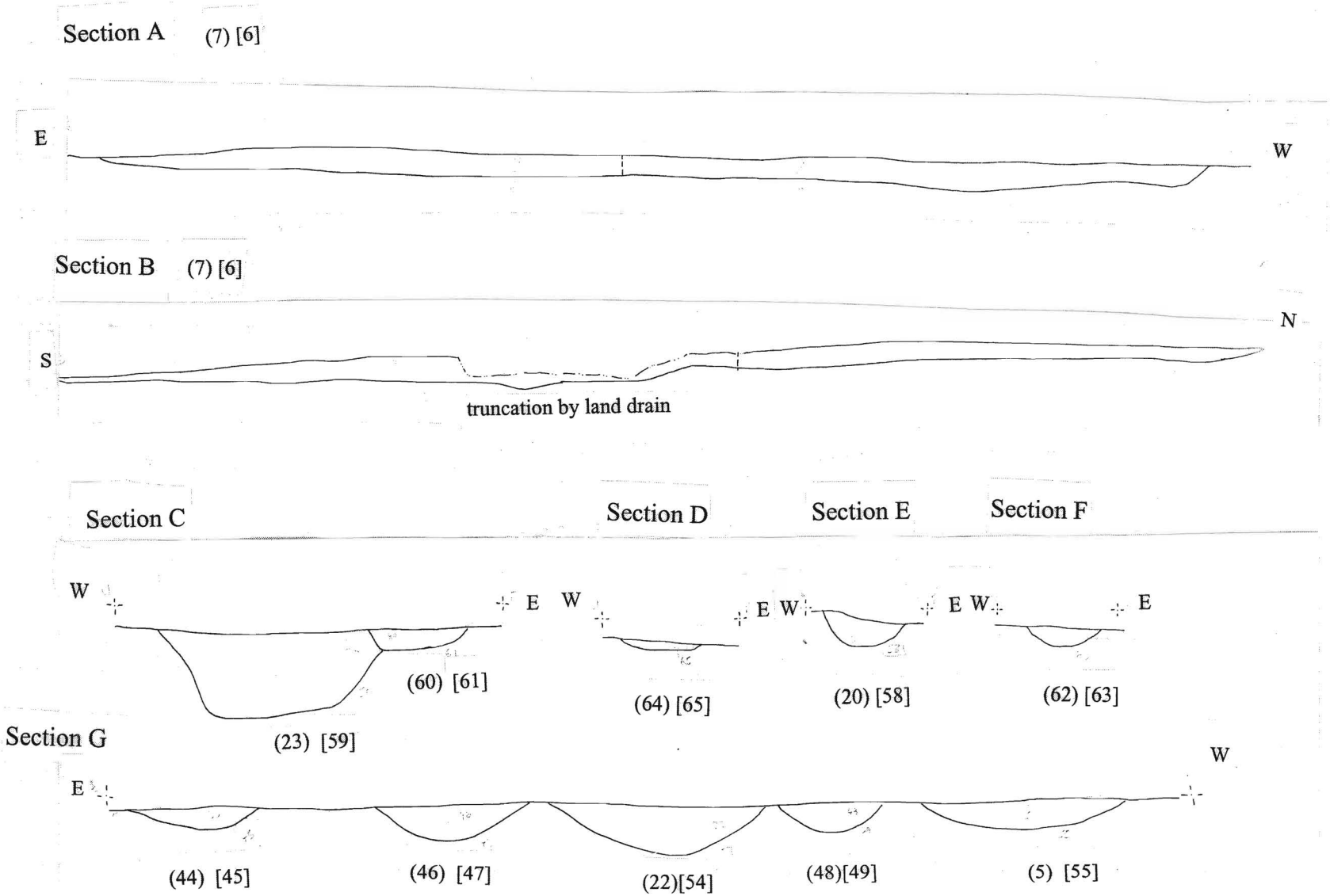


Fig. 14 Selected section drawings from Group 1. Scale 1: 20

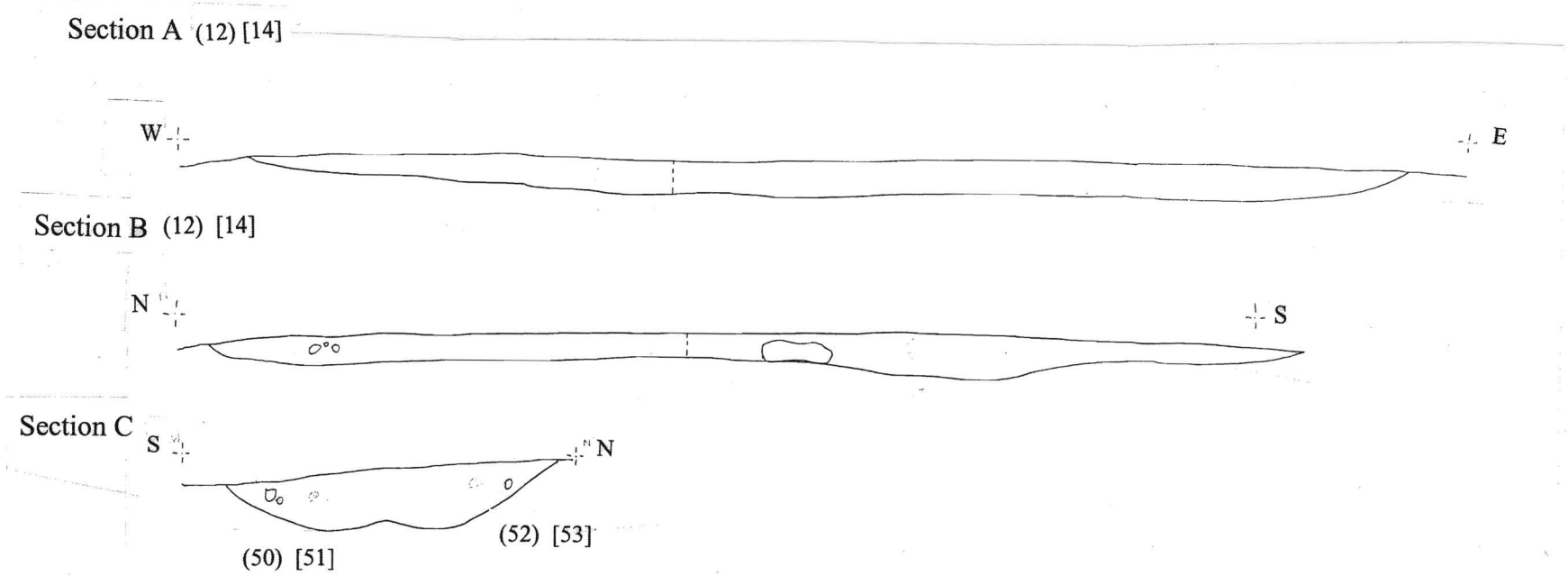


Fig. 15 Section drawings from Group 2. Scale 1:20

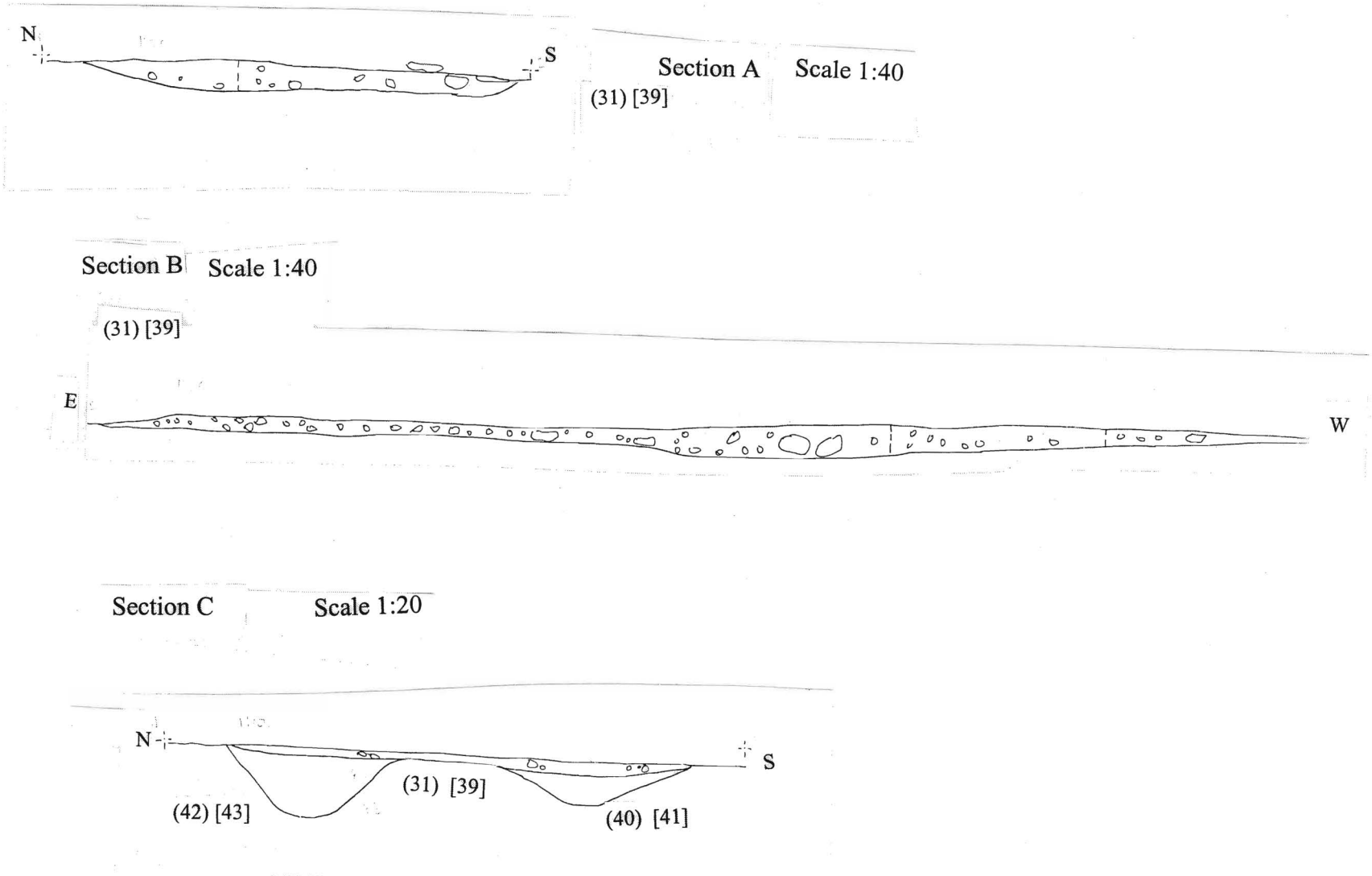


Fig. 16 Selected section drawings from Group 3.

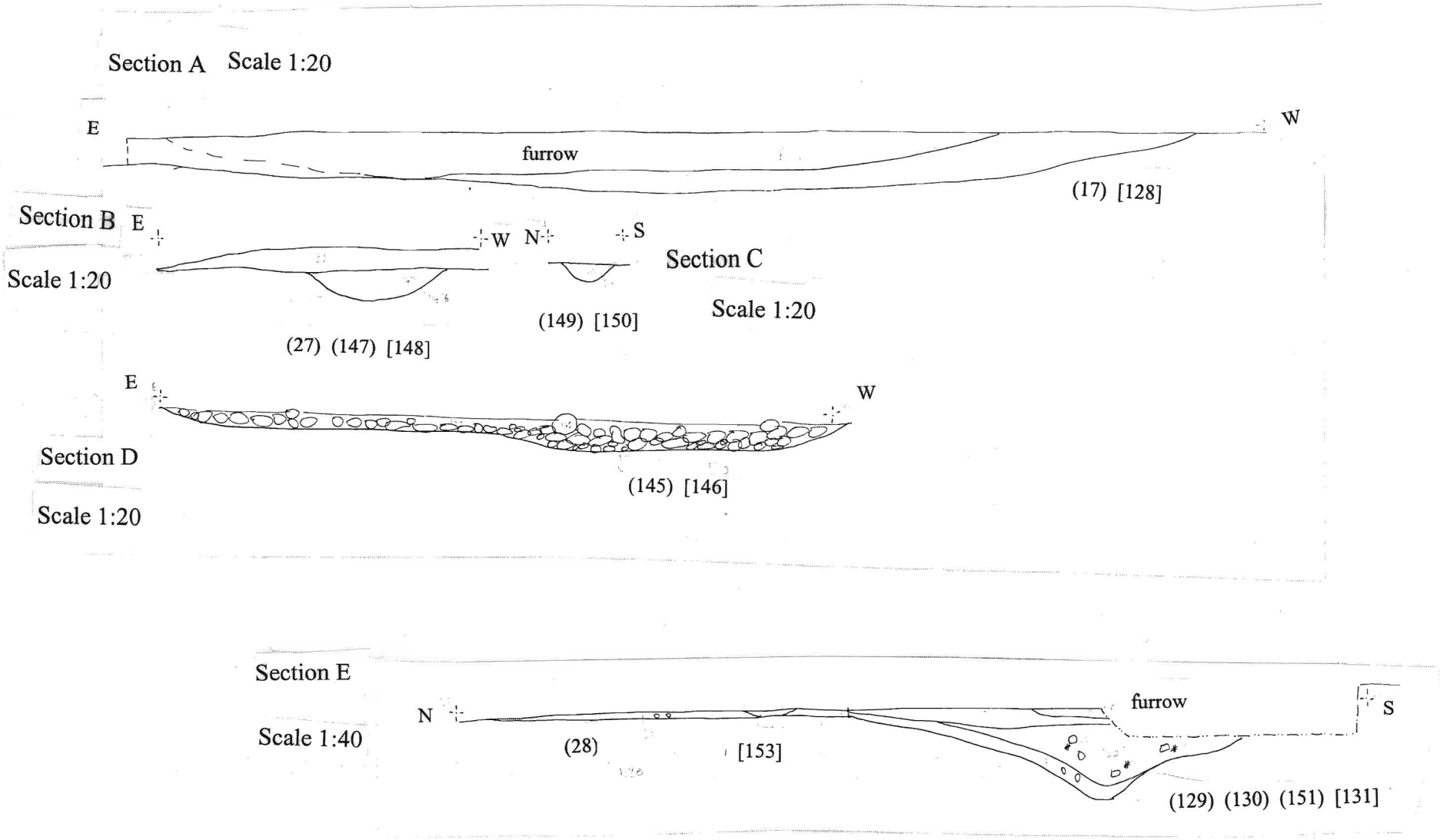


Fig. 17 Selected section drawings from Group 4.

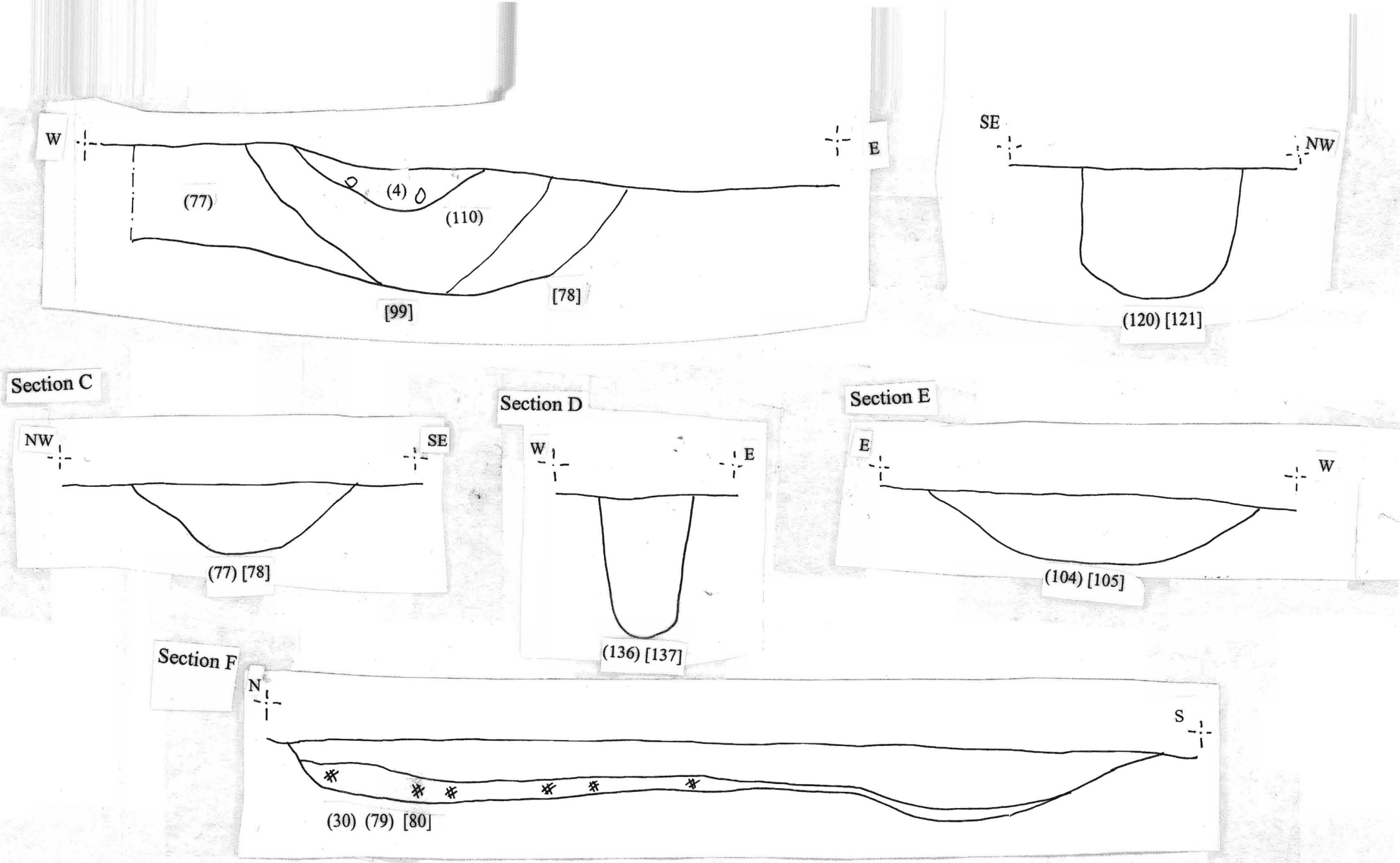


Fig. 18 Selected section drawings from Group 5. Scale 1:10