

**An Archaeological
Excavation at Gimbro Farm,
Castle Donington, Leicestershire
(SK440 256)**

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For

East Midlands Airport

**University of Leicester
Archaeological Services**

Planning Application No. 970814 &15/PT

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Summary

Following geophysical survey and trial trenching of land at Gimbro Farm, Castle Donington, two areas of archaeological importance were identified and excavated in advance of a new air freight depot. These areas contained evidence of Iron Age activity.

1. Introduction

1.2 Permission has been granted by North West Leics. District Council to construct airport facilities on land known as Gimbro Farm, located to the west of East Midlands Airport, Castle Donington, Leicestershire (Planning Application No. 970814 & 15/PT); centred on National Grid Reference SK 440 256 (figures. 1 and 2).

1.3 An archaeological evaluation of the development area, by geophysical survey and trial trenching was undertaken by ULAS between May/August 1998 to establish the nature, extent and significance of any archaeological deposits which might survive on the site. (ULAS reports, 98/120 & 98/128). This work was required by the planning authority in order to assess the impact of the development proposals on archaeological remains and determine an appropriate strategy for archaeological excavation and recording prior to destruction (fig. 3).

1.4 The evaluation identified two main areas of archaeological potential in fields 6 and 10. Field 10 provided evidence for Late Iron Age activity while field 6 contained a series of undatable postholes and heavily truncated linear features.

1.6 This stage of excavation was commissioned from the University of Leicester Archaeological Services (ULAS) and was undertaken between the 10/8/98 and 12/9/98. The site was directed by Michael Derrick and Sophie Clarke.

2. Geology

2.1 The underlying geology in field 6 was boulder clay with outcrops of Mercia mudstone while the geological substratum in field 10 was sand and gravels overlying boulder clay (The Ordnance Survey Geological Survey of Great Britain Sheet 141) . The site lies at a height of between 80-96m O.D., on land mainly sloping down to the west.

3. Archaeological and Historical Background

3.1 The initial evaluation suggested two sites of potential archaeological significance, which lay within the development area. An archaeological cropmark, believed to represent an occupation enclosure and trackway of Iron Age or Roman date, has been identified to the south east of the development area, (SMR Ref: **42 NW AG**) (figure 4).

Documentary evidence exists to suggest the existence of a Neolithic-Bronze Age barrow within the development area of Gimbro Farm (SMR Ref: **42 NW AB**). Sources dated to the 13th century refer to the site as Gyldenbarrow, later known as Gildenborow before it becomes known as Gimbro Farm.

An Archaeological Impact Assessment of the development proposals was completed on behalf of E.M.I.A. (Stanger Science and Environment, 1998) which determined the necessity for an archaeological field evaluation across the development area, in accordance with PPG16 (Dept. of Environment, 1990), in order to establish the potential for surviving archaeological deposits.

3.2 Evaluation by geophysical survey of the proposed development area was undertaken in May/June 1998 by ULAS using a Geoscan Research FM18 fluxgate gradiometer and ST1 sample trigger. The survey produced negative results, with no anomalies of potentially archaeological significance being located (Butler, 1998).

4 Aims

The aims of the excavation programme were:

- 4.1** To investigate the areas of archaeological potential as pinpointed by the findings of the evaluation.
- 4.2** To establish the nature, character and extent of any archaeological deposits within the area.
- 4.3** To record and sample the archaeological deposits excavated.

5 Methods

5.1 In the initial evaluation trenches were located to complement the results of the geophysical survey. Where geophysical survey provided negative results, the trenches were located evenly to provide a good sample of the area (Derrick 1998)

5.2 Of the twelve fields investigated only fields 6 and 10 merited further investigation. The topsoil and subsoil was stripped from around the trenches in these fields using a JCB 3CX with 1.5m wide ditching bucket. The soil was removed in level spits until archaeological remains or the natural substratum was reached.

5.3 Six areas were opened in total, areas 1, 2 and 3 (field 6) and A, B and C (field 10). Thirteen trenches (152-164) were excavated in field 10 on an *ad hoc* basis in order to pursue features already discovered in this area (figure 4).

5.4 The opened areas were examined by hand cleaning. The levels above ordnance datum of all machined layers were recorded. All potentially significant archaeological deposits were investigated and recorded.

5.5 Areas 1, 3, A and B were hand planned at 1:100 scale. All areas were located using a Topcon GTS-212 Electronic Distance Measurer linked to a Psion hand held data logger, this was also used to record features in Area C and trenches 155, 157-161 and 164.

6 Results

6.1 Field 6: Areas 1, 2 and 3

It was decided to open three areas in field 6; the excavation of these specific areas was chosen in order to further examine the archaeological deposits discovered in trenches 55 and 56 during the evaluation. Area 1 corresponds to trench 56 where a linear feature [21] was excavated and 22 sherds of Late Neolithic-Early Bronze Age pottery were recovered. Trench 55 revealed a series of undated linear features which were examined with the opening of Area 2. Area 3 was placed arbitrarily between 1 and 2 in order to determine whether the archaeological activity continued.

6.1.1 Area 1, (figure 5)

Context	Type	Section	Plan	Finds
62	cut of (63)	3.05	7.01	N/A
63	fill of gully? [62]	-----	7.01	none
64	cut of (65)	3.06	7.01	N/A
65	fill of posthole? [64]	-----	7.01	none
66	cut of (67)	3.07	7.01	N/A
67	fill of posthole? [66]	-----	7.01	none
68	cut of (69)	3.08	7.01	N/A
69	fill of posthole [68]	-----	7.01	none
70	cut of (71)	3.09	7.01	N/A
71	fill of posthole [70]	-----	7.01	none
72	cut of (73)	3.10	7.01	N/A
73	fill of gully [72]	-----	7.01	none
74	fill of gully? [75]	3.14	7.01	none
75	cut of (74)	-----	7.01	N/A
76	fill of gully? [77]	3.16	7.01	none
77	cut of gully? (76)	-----	7.01	N/A
80	cut of (81)	3.12	7.01	N/A
81	fill of posthole [80]	-----	7.01	none
82	cut of (83)	3.11	7.01	N/A
83	fill of posthole [82]	-----	7.01	none

6.1.2 The topsoil was stripped from around evaluation trench 56 creating Area 1. The examination of the archaeology proved to be problematic as dark yellow brown silty clay bands of furrow material, aligned in a N-S direction, covered half of the open area. Many of the features investigated were shallow in nature, suggesting that much of the archaeological evidence would have been destroyed by medieval ploughing.

6.1.3 In conjunction with the problems of plough damage, natural patches of silty sand were present, these varied in colour from light orange brown to blue grey and tended to mask features.

6.1.4 In total ten archaeological features were investigated during the excavation, six of which ([64], [66], [68], [70], [80] and [82]) were circular or sub-circular in plan while the remaining four ([62], [72], [75] and [77]) took the form of shallow linear features. No datable evidence was recovered.

Four other linear features were examined in this area during the evaluation these were [21], [23], [29] and [31]. Three other circular features were also found at this stage these were [18], [25] and [27]. These are discussed later in this report and are described in greater detail in the evaluation report (Derrick, 1998).

6.1.5 When excavated [64] had a very irregular profile (as did [66]). It was filled with a red brown sandy clay (65) and measured 0.16m in depth. Feature [66] contained a yellow red sandy clay fill (67) and was 0.13m. in depth. Both these features appeared to be very ambiguous and may have been natural patches. Slightly more convincing were circular features [68], [70], [80] and [82], all similar in depth (0.17m-0.18m.) and varying between a red brown ((69) and (71)) and yellow brown ((81) and (83)) silty clay.

6.1.6 Of the four linear features [75] and [77] on an east-west alignment, were the least convincing. Both were filled with light brown grey silty clay and were part of an amorphous area of silty natural. Linear feature [62] was filled with an orange yellow sand and had very irregular edges. Although there was the presence of charcoal this however may have been water borne as alluvial clay was observed in this area. Feature [72] contained a red brown sandy clay (73) and was aligned on an E-W orientation. It had regular gently sloping edges, and was truncated by medieval ridge and furrow on the east side.

6.2 Area 2, (figure 6)

Context	Type	Section	Plan	Finds
84	Fill of pit [85]	sketch	8.01	none
85	cut of (84)	sketch	8.01	N/A
86	fill of posthole [87]	sketch	8.01	none
87	cut of (86)	sketch	8.01	N/A
88	fill of posthole [89]	sketch	8.01	none
89	cut of (88)	sketch	8.01	N/A
90	fill of posthole [91]	sketch	8.01	none
91	cut of (90)	sketch	8.01	N/A
92	fill of posthole [93]	sketch	8.01	none
93	cut of (92)	sketch	8.01	N/A
94	fill of posthole [95]	sketch	8.01	none
95	cut of (94)	sketch	8.01	N/A
96	fill of posthole [97]	sketch	8.01	none
97	cut of (96)	sketch	8.01	N/A
98	fill of posthole [99]	sketch	8.01	none
99	cut of (98)	sketch	8.01	N/A
100	fill of gully? [101]	sketch	8.01	none
101	cut of (100)	sketch	8.01	N/A

6.2.1 An area was stripped back from evaluation trench 55 and evidence for ridge and furrow as described above was noticed. The medieval ploughing was aligned in an north-south direction and greatly reduced the survival of archaeology.

6.2.2 In total nine features were discovered. Almost all, with the exception of [85], were recorded as either cutting furrows or containing modern debris and were therefore post medieval in date. Linear feature [101] was recorded as natural and was filled with a light yellow brown silty clay. All other fills were recorded as a dark grey brown silty clay with the exception of [89] which was filled with a mid yellow brown silty clay. Finds were absent from this area.

6.3 Area 3

An area was stripped between Areas 1 and 2 in order to assess if any archaeological features were present but was immediately backfilled due to negative results. Dark yellow brown silty clay bands furrows were observed aligned in a N-S direction overlying the natural substratum which varied from grey blue silty clay to red brown clay. No finds were recovered from the spoil.

6.4 Field 10: Areas A, B and C

Area A was excavated around evaluation trench 95, where Iron Age pot was discovered. Area B was opened around trench 96 where a linear feature was observed during the evaluation. It was decided to concentrate archaeological fieldwork in these areas due to the paucity of finds and features in other parts of the development.

6.4.1 Area A, (figures 7 and 8)

Context	Type	Section	Plan	Finds
110	fill of ditch [198]	5.04	12.01 & 14.01	Iron Age pot and quern stone
111	fill of ditch [195] & [197]	4.07 & 5.04	11.01, 12.01 & 14.01	Iron Age pot and animal bone
112	fill of gully [201]	5.07	11.01	Iron Age pot and worked stone
113	fill of posthole [204]	5.10	14.01	Iron Age pot
114	fill of posthole [203]	5.09	14.01	Iron Age pot
115	fill of ditch?	-----	12.01 & 14.01	Iron Age pot
116	fill of ditch [199]	7.01	12.01	Iron Age and Roman pot
117	fill of posthole [118]	5.06	14.01	Iron Age pot
118	cut of (117)	5.06	14.01	N/A
119	fill of posthole [196]	5.05	14.01	none
174	fill of gully [176]	4.06	12.01	none
176	cut of (174)	4.06	12.01	N/A
195	cut of (111)	4.07	11.01	none
196	cut of (119)	5.05	14.01	N/A
197	cut of (111)	5.04	14.01	N/A
198	cut of (110)	5.04	14.01	N/A
199	cut of (116)	7.01	12.01	N/A
202	cut of (110)	7.02	14.01	N/A
203	cut of (114)	5.09	14.01	N/A
204	cut of (113)	5.10	14.01	N/A

206	cut of (112)	5.07	11.01	N/A
209	natural	----	14.01	N/A
212	natural	----	12.01	N/A
214	natural	----	12.01	N/A
220	natural	----	11.01	N/A

6.4.2 Area A was stripped back from evaluation trench 95, and revealed a series of linear features and postholes.

6.4.3 Almost all the features were truncated by north-south aligned mid yellow brown silty clay furrows. This had less effect on the survival of the larger features but more on the shallow postholes.

Narrow bands and patches of mid orange brown clayey silty sand were also present throughout the area, which proved to be natural.

6.4.4 Some of the gullies and ditches had several sections excavated along their length with the result that they were assigned more than one cut number as referred to in the text below.

6.4.5 All the linear features excavated in this area were very convincing. Ditch [202] (see also cut [198]) was aligned in a NE-SW direction and was V-shaped in profile. It was filled with a grey brown sandy clay which had numerous small and large rounded pebbles (110). A great majority of the pebbles were burnt and charcoal was present in abundance. Ditch [197] (see also [195]) was on an E-W alignment and had a gentle sloping profile with a flat base. It had a mid brown silty clay fill and was cut by [198].

6.4.6 Gully [201] was observed in plan cutting [195] (111). It was very shallow (0.10m) and was truncated on its SE and NW ends by furrows. The profile was straight edged with a slightly rounded base and was filled with a mid grey orange silty clay with occasional charcoal flecks (112).

6.4.7 An unexcavated linear feature was observed running in a north-south direction. The fill was a light orange brown silty sandy clay (115) and it seemed to have been heavily truncated as patches of natural Mercia mudstone were apparent. Ditch [199] had almost straight sides and a slightly rounded base. It was aligned in a NW-SE direction and was filled a mid yellow brown silty clayey sand which had occasional charcoal flecks and a moderate amount of medium rounded pebbles (116).

6.4.8 A series of postholes were excavated within close proximity to each other. They were all shallow ranging from 0.15m to 0.19m in depth. Posthole [203] was circular in plan with straight edges and a rounded base while [204] was sub circular had straight sides and a flat base. Both features had a mid orange brown silty clay as their fills ((114) and (113)). Posthole [118] was circular with gently sloping sides and a flat base. It was filled with a grey brown sandy clay with occasional charcoal flecks present (117). [196] is also circular but had steep sides and a rounded base, this is filled with (119) a yellow brown silty clay with occasional charcoal flecks and large packing stones (0.10m-0.20m).

6.5 Area B (figures 9 and 10)

Context	Type	Section	Plan	Finds
123	natural	-----	10.01	Iron Age pot (residual)
124	fill of pit [163]	4.02	10.01	Iron Age pot and animal bone
126	natural	-----	9.01	Iron Age pot (residual)
128	natural	-----	10.01	Iron Age pot (residual)
129	secondary fill of ditch [191]	6.01	9.01 & 10.01	Iron Age pot, Roman pot and animal bone
130	natural	-----	10.01	none
131	fill of ditch?	-----	9.01	none
132	natural	-----	9.01	none
133	natural	-----	9.01	none
134	natural	-----	9.01	none
135	natural	-----	9.01	none
136	natural	-----	-----	none
137	land drain	-----	-----	none
138	natural	-----	9.01	none
139	fill of gully [161]	4.01	9.01	Iron Age pot and animal bone
140	fill of gully [161]	-----	9.01	none
141	fill of gully [161]	-----	9.01	Iron Age pot
143	fill of gully	-----	9.01	Iron Age pot and animal bone
144	fill of pit [162]	7.03	-----	none
145	natural	-----	9.01	none
146	natural	-----	9.01	none
147	fill of ditch [208]	5.01	-----	Iron Age pot
148	natural	-----	9.01	none
149	fill of ditch [208]	6.03	9.01	none
150	fill of gully [161]	-----	9.01	none
153	fill of gully [188]	4.05	10.01	Iron Age pot
154	fill of gully [189]	4.05	10.01	Iron Age pot and animal bone
155	fill of gully [205]	5.08	10.01	Iron Age pot and animal bone
157	natural	-----	10.01	none
158	natural	-----	10.01	none
159	secondary fill of ditches [182] [183]	5.02	9.01	Iron Age pot
161	cut of (139)	4.01	9.01	N/A
162	cut of (144)	7.03	9.01	N/A
163	cut of (124)	4.02	10.01	N/A
182	cut of (184) & (159) (double ditch)	5.02	9.01	N/A
183	cut of (184) & (159) (double ditch)	5.02	9.01	N/A
184	primary fill of ditches [182] [183]	5.02	9.01	Iron Age pot and animal bone
188	cut of (153)	4.05	10.01	N/A
189	cut of (154)	4.05	10.01	N/A

190	primary fill of ditch [191]	6.01	10.01	Iron Age pot and animal bone
191	cut of (190)	6.01	10.01	N/A
192	fill of pit [193]	6.01 & 6.02	10.01	Iron Age pot
193	cut of (192)	6.01 & 6.02	10.01	N/A
205	cut of (155)	5.08	9.01	N/A
207	fill of ditch [208]	6.03	9.01	Iron Age pot
208	cut of (207)	6.03	9.01	N/A
216	fill of pit? [217]	6.03	9.01	none
217	cut of (216)	6.03	9.01	N/A
218	fill of pit [219] (section only)	6.03	9.01	none
219	cut of (218)	6.03	9.01	N/A
182, 191, 208	junction of ditch cuts	6.01	10.01	Iron Age pot, animal bone and worked stone

6.5.1 Area B was stripped back from evaluation trench 96, revealing a series of linear and curvilinear features as well as pits.

6.5.2 Mid yellow brown silty clay furrows were present aligned in a N-S and NE-SW direction; they were less concentrated in this area and as a result caused less destruction.

6.5.3 Narrow bands of mid orange brown silty sand were also present across the area which were identified as natural geological occurrences. Some pot was recovered from the surface of these bands; however these were found during the initial phase of machining and were most probably from the topsoil.

6.5.4 Pit [163] was circular in plan and had steep sloping sides, it was 0.40m deep and had a flat base. It was filled with a mid red brown sandy clay which contained occasional charcoal flecks (124). Fire cracked pebbles were also found as part of the fill. Pit [193] had gentle sloping sides and a rounded base and was filled with a dark red brown sandy clay with occasional small pebbles and frequent charcoal flecks (192); this was cut by ditch [191]. One other pit was present in this area which was sub circular in plan, had almost straight sides and a rounded base [162]. It was filled by a light yellow brown silty sand with occasional charcoal flecks and frequent rounded pebbles (144).

6.5.5 There are four main ditches in Area A, two of which (double ditch [182]/[183] and ditch [191]) converged to form the corner of an enclosure. Ditch [208] had steep sides, a slightly rounded base and was aligned NW-SE. It was filled by a dark grey brown sandy silty clay which had a moderate amount of pebbles and frequent charcoal flecks (207); there were also tipping layers present, (147) a mid yellow brown sandy clay with occasional pebbles and charcoal flecks and (149) a dark orange brown silty sandy clay with occasional medium rounded pebbles and charcoal flecks. Ditch [208] cuts part of the enclosure [191] which was a steep sided ditch with a rounded base, was also aligned NW-SE and measuring 0.74m deep x 1.20m wide. The initial fill was a dark red brown sandy clay and included frequent charcoal flecks (190); the secondary fill (129) was a dark red brown sandy clay with large stone and pebbles and occasional charcoal flecks.

6.5.6 Curvilinear double ditch [182] and [183] seems to have been truncated by [191]. From examining the section it was concluded that both ditches were contemporary and that a primary and secondary phase of backfilling (184) and (159) was evident. The initial fill (184)

was a red brown sandy clay with large pebble and moderate charcoal fleck inclusions, while (159) was a grey brown sandy clay with large pebbles and frequent charcoal flecks. The ditches had gently sloping sides, rounded bases and measured 0.72m deep x 2.53m wide.

6.5.7 Gully [161] is on the same alignment as [191] (NW-SE); it was linear in plan had almost straight sides and a slightly rounded base. The dimensions were 0.25m deep x 0.50m wide, the predominant fill of the gully being a mid orange brown silty sandy clay with moderate charcoal flecks (139). There were several fills which could be attributed to tipping these were, (140) which comprised of a mid grey orange silty clay with frequent charcoal flecks with medium rounded pebbles, (141) a dark grey silty sand with an abundance of burnt bone and charcoal flecks and (150) a dark grey orange silty clayey sand with frequent charcoal flecks and medium rounded pebbles.

6.5.8 Gully [188] cuts gully [189] and is a continuation of the same feature seen in Area A. Both these gullies have gentle sloping sides, concave bases and are aligned E-W. The features were filled with a mid grey brown clayey silt with occasional pebbles, (153) and (154). The gullies respect the double ditch of the enclosure. Gully [205] had a V-shaped profile and was aligned E-W; it was filled with a grey orange brown silty sand which contained the occasional charcoal fleck and frequent amounts of fire cracked stone (155). This feature was cut by double ditch [182] / [183].

6.5.9 Two possible linear features remained unexcavated. Fill (131) was a light orange brown silty sand which may possibly have been natural. Fill (143) was a light yellow brown silty sand, and formed the fill of a gully aligned NW-SE.

6.6 Area C, field 10 (figure 11)

6.6.1 Two ditches were discovered in this area both remaining unexcavated. One of the ditches, on a NW-SE alignment had a mid orange brown clayey sand fill (171) and had been truncated by a furrow running N-S. Although unexcavated it appears to be a continuation of ditch [208] in Area B. Ditch (226) seemed to run into (171) where it terminated. It too had a mid orange clay sand fill and is likely to be a continuation of ditch [198] / [202] recorded in area A.

6.7 Trenches 152-164, field 10 (figure 11)

Trench No.	Alignment	Length (m)	Width (m)	Depth of Topsoil (mean m)	Depth of Subsoil (mean m)	Depth of Trench (mean m)	Archaeology yes/no
152	E-W	17.60	1.5	0.26	0.03	0.29	no
153	E-W	15.20	1.5	0.38	0.06	0.42	no
154	E-W	27	1.5	0.27	0.03	0.31	no
155	NE-SW	12	1.5	0.41	0.08	0.42	yes
156	N-S	9.60	1.5	0.29	-----	0.34	no
157	NW-SE	12.70	1.5	0.32	-----	0.25	yes
158	NE-SW	11.10	1.5	0.38	-----	0.40	yes
159	NE-SW	7.10	1.5	0.30	-----	0.53	yes
160	E-W	9.80	1.5	0.32	0.14	0.45	yes
161	NW-SE	18.70	1.5	0.30	0.14	0.57	yes
162	E-W	25	1.5	0.31	0.10	0.36	no
163	NE-SW	19.80	1.5	0.31	0.09	0.39	no
164	E-W	9.40	1.5	0.33	0.12	0.38	yes

6.7.1 Thirteen trenches were excavated in field 10 on an *ad hoc* basis in order to pursue the archaeology already discovered in Areas A, B and C.

6.7.2 The topsoil was recorded as a mid dark orange brown sandy silty clay in all the trenches while the subsoil, where present, was a mid orange brown sandy clay.

6.7.3 Many of the trenches contained bands of medieval plough furrows which were excavated by the JCB.

6.7.4 Most of the features in the trenches were unexcavated with the exception of trenches 159 and 161 which were excavated by machine.

6.7.5 Of the thirteen trenches excavated seven revealed evidence of archaeological activity much of which was also observed continuing in the open areas. The trench plans are recorded individually in the archive.

Trench No.	Feature Type	Alignment	Context No.'s	Finds
155	Ditch	NW-SE	(164)	Iron Age pot and animal bone
157	Furrow/Ditch?	N-S	(165)	Iron Age pot
158	Ditch	NW-SE	(166)	Iron Age pot
158	Gully	E-W	(167)	none
159	Ditch	NW-SE	(168) (185) (186) [187]	none
159	Gully	N-S	(169)	none
160	Ditch	N-S	(170)	animal bone
161	Ditch	NE-SW	(170) [194] continuation of ditch in T.160	Iron Age pot
164	Ditch	NW-SE	(175)	Iron Age pot

6.7.6 The feature in trench 155 contained a mid orange brown silty clay fill (164) and appeared to be the continuation of ditch [191] in Area B which was also aligned in a NW-SE direction. The feature described as a ditch in trench 157 contained a mid orange brown sandy clay and it seemed very likely that this was in fact a plough furrow (165). Ditch fill (166) was a mid yellow grey brown clayey silt with lenses of brown grey silt, medium pebbles and the occasional charcoal fleck was also present. Gully (167) abuts (166) and is filled with the same material. Trench 159 revealed a ditch, excavated by the JCB, which can also be seen continuing in Area A [199]. The ditch had steep sloping sides and an irregular base; there is also a possibility that it had been recut twice at a 45° angle. There were three fills contained within the ditch: (168) a mid brown clayey silt with frequent charcoal flecks and occasional medium rounded pebbles, (185) a mid orange brown sandy silt with occasional rounded pebbles and (186) a mid yellow brown sandy silt with medium rounded pebbles present.

6.7.7 Gully fill (169) was a mid orange brown sandy clay with occasional charcoal flecks and medium rounded pebbles, which was a continuation of the gully in Area A [176]. Trench 160 revealed a ditch with fill (170), a mid orange brown, clayey sandy silt with occasional charcoal flecks. Although this was unexcavated it did continue into trench 161 where the profile was recorded as steep sided with a flat base [194]. Ditch fill (175) was a mid orange

clayey silty sand with occasional charcoal flecks and medium rounded pebbles. Although it was not excavated however it continued into Areas B and C and may be part of a double ditch network [161] and [208].

7 Discussion

7.1 Field 6: Area 1

On opening area 1 it was observed that many of the gullies and ditches examined in the evaluation were masked by large amorphous areas of silt. This together with the presence of medieval furrows made interpretation very difficult.

7.1.1 Linear features:

Twenty two sherds of Late Neolithic-Early Bronze Age pottery were recovered from ditch [21] and included a rim sherd which had evidence of internally impressed, cord decoration. Two flint flakes were also recovered. The only other linear feature with finds was gully [29] which contained a corticated broken flake.

Gully [72] contained modern material, while gully [31] and ditch [23] may have been misinterpreted in evaluation as they were shallow in depth, contain very well leached fills and lacked finds, and are therefore most likely to be bands of natural substrata. The features recorded as gullies [75] and [77] seem to be part of a natural amorphous silty patch.

Ditch [21], gully [29] and [63] are the only definite linear features. There was no trace of them continuing across the site and therefore it is difficult under the circumstances to say that they were associated; there is however a possibility that they were the fragmentary remains of a Late Neolithic-Early Bronze Age field system, where gully [29] converges with ditch [21] at an oblique angle; documentary evidence also describes a Neolithic-Bronze Age barrow in the development area (SMR Ref: 42 NW AB), the evidence for such field systems at Gimbro Farm however remains uncertain.

7.1.2 Pit and Postholes:

All the postholes discovered in the excavation [64], [66], [68], [70], [80] and [82] and those of the evaluation [25] and [27] were devoid of finds and as a consequence were undatable. The postholes were all shallow in depth and had variable width. Their profiles were similar with an overall steep sided look and rounded base, it is likely then that these postholes were related. An alignment of postholes running NW-SE is evident, which may indicate the presence of a fence line, with phases of abandonment and replacement apparent.

Pit [18] was excavated during the evaluation. It was shallow in depth and appeared to have been a prehistoric rubbish pit or posthole. There are no other features of this sort in the area, and it cannot be dated accurately due to the sparseness and undiagnostic nature of the finds.

7.2 Field 6: Areas 2 and 3

Area 2 was devoid of finds and all features either cut furrows or contained modern debris. The postholes present were probably modern fence boundaries while the gullies seem to have been the remnants of land drains. Area 3 was immediately backfilled due to the complete absence of features.

7.3 Areas A, B and C, field 10 (figure 11)

Areas A, B and C contained two phases of field system and enclosure activity as well as a four post structure which may be related to the second phase of development. Most features contained pottery of Iron Age date with a tendency toward the Late Iron Age. All phasing was based on stratigraphical information and differing alignments of linear features.

7.3.1 Phase I

7.3.2 Enclosure:

The first phase of activity appears to be the formation of Iron Age field systems and enclosure. In Area B the corner of an enclosure was detected, this was formed when Ditch [191] aligned NW-SE, cut curving double ditch [182] / [183] aligned NE-SW. Both ditch and double ditch are of similar depths which would suggest contemporaneity, the pottery recovered from the junction of these features also supports this theory as it is all of the same type and fabric and dates to the Late Iron Age. Domestic debris such as fire fractured stone and animal bone was also recovered from these features; the animal bone included domestic livestock and horse.

While it is not inconceivable that this enclosure encircled a settlement, the evidence remains scant and it would be more likely that what we are seeing is peripheral activity (one pit [163] was examined within the enclosure and contained pottery of Late Iron Age date, fire fractured stone and miscellaneous animal bone). The main focus of enclosure may have been in the SE corner of field 10 where cropmarks revealed a possible occupation enclosure and trackway of Iron Age or Roman date see figure 4.

7.3.3 Field Systems:

There are two phases of Iron Age field system development which are distinguishable only by stratigraphical information as the pottery from each phase is the same. The similarity of the pottery types would suggest an alteration to the field plan having taken place over a relatively short period of time.

The field boundaries within the first phase abutted the enclosure in Area A and both respected each other suggesting contemporaneity between both features. The pottery recovered from both was also similar and suggested a Late Iron Age date. The field systems were rectilinear in form and adhered to the brickwork plan similar to that observed at the Late Iron Age site of Gamston, Nottinghamshire (Knight 1992, p.32). The first phase of field organisation consisted of a narrow gully running E-W for 54m, this gully [195] was 0.16m deep and had a rounded base and almost straight sides and was met at right angles by gully [176] which was more V-shaped in profile, aligned N-S and is 0.32m deep; the fills are the same (orange brown, silty clay). The brickwork plan, is usually aligned in an E-W / N-S arrangement as was the case here, there are also parallels with the Iron Age settlement site of Dunstons Clump, where a similar plan was discovered (Garton 1987).

7.3.4 Associated features:

A very shallow linear feature with fill (115) was observed in plan being cut by gully [195], the pot recovered from here was undiagnostic and could only be described as prehistoric. It is

possible that this belongs to the first phase of the brickwork field pattern as it is aligned at right angles to [195] although it does appear to be earlier in date stratigraphically.

7.4 Phase II

7.4.1 Field Systems:

A change in orientation of field boundaries can be observed in the second phase. The main gully runs NE-SW, [198] & [202] off which four cross boundaries [199], [206], [208] and (212), radiate at right angles in a SE-NW direction.

Gully [198] and its perpendicular associated gully [206] were both observed cutting the earlier phase I gully [197] in Area A and both were filled with similar materials. Another continuation of [198] cut the Phase I enclosure in Area B. This gully [208] can be seen continuing through into Area C and trench 164 before finally meeting [198]. Both these adjoining gullies were of similar depths (approx: 0.46m) and both had 45° edges, they were also filled with very similar material further suggesting that they are related features.

All the features mentioned in this phase, with the exception of (212), produced Late Iron Age pottery. A quern stone was also recovered from gully [206] and is mentioned in the appendix. The stratigraphical information would seem to suggest a slightly later phase of land re-organisation and development, this phase followed the same “brickwork pattern” as its predecessor.

7.5 Four Post Structure:

A four post structure excavated in Area A, had no stratigraphical relationship with any of the stages of development. Its position within the second phase of field systems may indicate that it belonged to this phase. The postholes shared the same 45° profile, had similar dimensions and fills. The spacing between the posts is 3m x 3m, a typical size for structures of this sort; at Fengate a structure measuring 2.5m x 3.2m was recorded (Pryor 1984, p.105 fig 83) while two subsquare structures with dimensions 3.4m x 3.4m and 2.6m x 2.8m were recorded at Rainsborough Camp, Northamptonshire (Avery *et al* 1968, p.218)

Four post structures such as these are widespread and have been observed at the Iron Age sites of Twywell, Northants (Jackson 1975) and Wanlip, Leicestershire (Beamish 1998). Various ideas have been put forward as to the function of these structures by different authors (Ellison and Drewett 1971, Gent 1983, Knight 1984, p.154), including watch towers, granaries, fighting platforms, drying racks, animal pens, shrines and burial platforms. While the storage of grain is a possibility, the lack of any environmental evidence prevents this avenue from being explored further.

The position of these four posts is interesting in that they correspond with a break in the second phase field boundary [206], which may have been used as entrances through which livestock could be driven. There is a parallel at Gamston, Nottinghamshire where a four post structure was recorded in a similar position. Here it was thought that the posts represented a double gate system for the control of animals and this may also have been the case at Gimbro Farm.

8. Conclusions

An area of peripheral Late Iron Age activity has been identified on high land in field 10 at Gimbro farm, in the form of two phases of field system, a possible four post double gateway and enclosure. The nature of the finds recovered (see appendix) would suggest that there is some Iron Age settlement activity fairly close by, with the main core of this activity perhaps in the S.E. corner of field 10 where a cropmark thought to represent an Iron Age enclosure is situated.

Iron Age settlement activity in Leicestershire, has been mainly restricted to the study of sites situated on valley sides such as Wanlip, Normanton Le Heath and Willow Farm. Excavations at Gimbro Farm have provided archaeologists with an insight into upland and clayland settlement and land use during this period.

9. The Site Archive

The site archive will be stored with LMARS; Accession No. XA53. 1998

13 trench recording sheets

136 context sheets

7 plan sheets

5 section sheets

Site indices

Colour slide films and monochrome films

EDM survey files and plots

Finds: 309 sherds of Late Iron Age pottery

3 sherds of Roman Pottery

1 sherd of Belgic ware

43 flints

292 animal bones

2 small finds

10. Acknowledgements

This archaeological excavation was carried out under the direction of Michael Derrick and Sophie Clarke with the assistance of Jen Browning, John Thomas, Jess Britten, Adrian Butler, Tony Gnanaratnam, Martin Shore, Michael Rowe, Matt Beamish, Susan Ripper, Jim Meek and Stephanie Knight.

The prehistoric pot was analysed by Patrick Marsden. The flint was analysed by Lynden Cooper. The environmental samples were examined by Angela Monckton. The bone was analysed by Jen Browning and the small finds examined by Nick Cooper. The project manager was Richard Buckley.

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PPG 16

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12 Appendix: Finds

12.1 The Animal Bones

Jennifer Browning

Animal Bone was recovered by hand from 14 contexts. 292 fragments were recovered in total. The bones were subjected to a rapid scan to identify species and any features, such as butchery or gnawing.

The bone is in a very fragmentary condition with a high proportion of unidentifiable pieces; only a quarter of the bone is identifiable. In most cases, the bone surfaces are too abraded to retain butchery marks. Damage by gnawing was noted on one bone; a cow tibia in context 143. Tiny fragments of burnt bone were recovered from contexts 124, 129, 159, 111, 154, 139, 155 and 190. However, in no context was it possible to identify them to species and they were present only in very small quantities (maximum 5 fragments from 124).

The largest amount of identifiable fragments derived from the junction of 182, 191 and 208. Out of a total of 56 bones, only a third were identifiable. Species present are cow, horse and sheep/goat, mainly limb bone fragments.

A collection of large mammal bone fragments in a fragile condition were recovered from context 170. It was possible to identify some of these as horse bones, although for the most part they were too highly fragmented and abraded to be recognisable.

Context 124 yielded over 50 fragments. However, only the teeth of sheep and cattle and a cattle horncore were identifiable.

The results of the scan have been tabulated below. Very little analysis or interpretation can be offered on the strength of the data. Of the identified bone, species present (greatest first) are cattle, sheep/goat, horse and possibly one bone of deer; mainly domestic species. Smaller species are not represented but this is not surprising, given the state of preservation of the recovered bone.

Context	Horse	c/size	Cow	Sh/g	s/size	Pig	Deer	Ribs	Unident	Burnt
111										1
124			3	3				0	50+	5
129									11	2
139									8	2
143			1						1	

154										1
155									2	1
159									20	1
164					2				2	
170	2	21								
184		1		1					15	
190					1				60	1
182,191, 208	4		6	3			1	3 large	39	0
u/s			1						15	2
Total	6	22	11	7	3		1	3	223	16

12.2 Lithics

Lynden Cooper

The material was mostly of a brown translucent flint derived from till sources, presumably gained locally. The bladelets and bladelet core suggest a background late Mesolithic element to the assemblage. These display typical attributes of a blade technology such as platform preparation (facetting and spur trimming) and soft hammer or indirect percussion. The remaining pieces all display a hard hammer technology, often with signs of rather crude knapping. The majority of pieces are unmodified flakes. There is a low proportion of cores which may imply that knapping was undertaken in areas not sampled by the excavation. There is a single retouched flake, a point (a piercer or such like). The technology would suggest a late prehistoric date and its rather crude execution would lend some support to the notion of Iron Age flint use (Cooper & Humphrey, 1998)

Catalogue

Catalogue No.	Context	Description
1.	110	3ry flake
2.		chunk
3.		2ry flake
4.	114	bladelet frag
5.	124	2ry flake
6.		3ry flake
7.		2ry flake
8.	125	2ry flake with notch (damage?)
9.		2ry flake
10.	127	2ry flake
11.		3ry flake with spur trimming
12.		2ry flake
13.		corticated 2ry flake
14.	129	small 3ry flake/chip
15.		point (piercer/awl)
16.		chunk
17.		1ry flake
18.		struck frag/crude core
19.		chunk
20.		struck frag/crude core
21.	139	burnt piece

22.	160	2ry flake
23.	164	corticated 2ry flake
24.	184	chunk
25.		2ry flake
26.		2ry flake
27.	190	struck frag
28.		2ry flake
29.	191/208/182	chunk
30.		chunk
31.		thermally fractured piece
32.		thermally fractured piece
33.		struck frag
34.		2ry flake
35.		2ry flake
36.	AB, unstrat	chip
37.		small 3ry flake
38.		3ry bladelet with retouched distal end
39.	F10, unstrat	bladelet core
40.		2ry flake
41.		2ry flake
42.		2ry flake with small removals (damage?)
43.	unstrat	2ry flake

12.3 Small Finds

Nicholas J. Cooper

XA53 1998 (110) Sf 1.

Complete lead object. In the form of a single-pointed leaf with short leaf stem which has a rounded rather than broken terminal. Lower surface flat, upper surface has a raised ridge forming a midrib, tapering towards the leaf tip, and a slight bulge centrally. The ridge does not extend down the leaf stem. Leaf edge has a small notch on one side. Length 42mm, width 23mm, thickness 4-8mm.

Perhaps a casting model in lead to allow the production of a mould for copper alloy examples. Once cast, the objects could be beaten flat and further decorated with incised lines. A similar model or votive object in copper alloy in the form of a vine branch is known from Colchester (Crummey 1983, 145, and fig. 178.4280). The object could date to the Roman period but is as likely to be medieval or later.

XA53 1998 Unstratified

Incomplete composite object comprising a half cylinder in copper alloy sheet partly enclosing a badly corroded iron insert, secured by an iron rivet set midway along each side. The half-cylindrical casing is symmetrical with tapered ends decorated with transverse parallel grooves. Length 63mm, width 19mm.

Probably modern. Possibly a handle grip or fitting for some form of iron tool. No parallels have been found.

12.4 Environmental samples from Gimbro Farm (XA53.1998)

Angela Monckton

Introduction

Excavation of Late Iron Age features was carried out by ULAS and samples were taken for the recovery of plant remains which can give evidence of diet and agriculture in the past. Features were sampled if they were datable and had the potential to contain charred plant remains.

Methods

A total of nine contexts were sampled and the samples wet sieved in a York tank using a 1mm mesh with flotation into a 0.5mm mesh sieve. The residues were air dried and the coarse fraction over 4mm (CF) sorted for all finds which are included in the relevant sections of this report and noted in table E1. The fraction below 4mm was scanned at x10 magnification to for the presence of remains and no plant remains were found in these residues. The flotation fractions (flots) were air dried and examined with a x10 stereo microscope. The plant remains were identified by comparison with modern reference material and were recorded with details of the samples (Table E1).

Results

Very few charred plant remains were found. Charred cereal grains which could not be identified further were found in context 141 together with three seeds of the larger grasses (Poaceae) and a seed of black bindweed (*Fallopia convolvulus*). Burnt and unburnt bone fragments were present in the residues. The other samples produced only small fragments of charcoal.

Conclusions

A few charred cereal grains and seeds, probably of arable weeds, were found. They were only found with the burnt bone so it is possible that the plant remains were burnt with the bone as rubbish or that the bone was burnt near to where cereals were being consumed. However this very small amount of plant remains may be residual or redeposited.

Table E1. Environmental samples.

Sample	Context	Feature	Samp Vol. litres	Flot Vol. mls	Grain ch	Seed ch	Seed un	Charc.	Comments
1.1	141	Crem	6	1	1	2	1	fl	Grass seeds. CF: pot and bone
1.2	141	..	3	3	1	1	1	fl	Black-bindweed seed. CF: pot and bone.
2	121	Ditch	6	1	-	-	-	-	-
3	110	Ditch 198	5	1	-	-	1	fl	-
4	190	Ditch 191	4	1	-	-	-	-	- CF: pot, charcoal, flint.
5	218	Pit?	3	1	-	-	-	-	-
6	184	Ditch 182	3	1	-	-	-	-	-
7	207	Ditch 208	3	1	-	-	-	fl	- CF: pot, bone, charcoal.
8	112	Gully	4	1	-	-	-	fl	- CF: pot and charcoal
9	-	Pit T31	6	20	-	-	-	-	All roots

Key: ch = charred, un = uncharred, Charc. = charcoal, fl = flecks, fr = fragments. CF: = finds from coarse fraction of residue >4mm.

12.5 The Pottery Patrick Marsden

The evaluation and excavation produced a total of 342 sherds of pottery weighing 1431g (29 sherds weighing 69 g from evaluation (see below *) and 313 sherds weighing 1362 g from the excavation).

Later Neolithic pottery

22 sherds weighing 36g from a single vessel were recovered from the evaluation. These include a rim fragment which displays internal twisted cord impressions typical of the later Neolithic impressed ware / Peterborough ware traditions. The large angular (?igneous) rock inclusions in the fabric are also characteristic of this type of pottery.

The Iron Age and Roman Pottery

The remainder of the prehistoric pottery (320 sherds weighing 1395g) is of an Iron Age date. Most of the Iron Age pottery is characteristic of the East Midlands scored ware tradition of the middle to late Iron Age (Elsdon 1992), even though only a small number of sherds display scoring. However, the presence of shell-tempered fabrics (S, S1 and S2), diagnostically later forms and wheel-thrown/finished vessels point to a late Iron Age/early Roman date for several contexts and this may reflect the date of the whole assemblage. The recently excavated settlement at Hamilton, Leicester produced East Midlands scored ware together with diagnostically late Iron Age, including finer, pottery (Marsden forthcoming). A characteristically 'Belgic' necked bowl in a shell-tempered fabric was found in Context 125. Three contexts contain small numbers of Roman grey ware sherds together with larger quantities of Iron Age material (see below **).

Table showing prehistoric pottery sherd number and weight (g) totals and fabrics present by context

Context/Sample No.	Fabrics	Sherd No.	Weight (g)
20*	RQ3	22	36
50*	Q1, Q2	7	33
110 and 110 s3	Q2, RQ1	12	43
111	S, RQ1, Q2	18	26
112 and 112 s8	Q1, RQ1	7	58
113	Q2	10	7
115	Q2	1	2
116 **	Q2	5	12
117	Q2	1	2
122	Q2	1	3
123	RQ1	4	3
124	Q2, RQ1	32	80
125 **	S1, Q2 and RQ1	19	164
126	RQ1	5	42
128	Q2	3	14
129 **	S1, Q2, RQ1, D	38	246
139	Q2, RQ1	11	45
141 and 141 s1	S1, S2	20	41
143	RQ1	4	22
147	Q2	1	10
153	Q2	4	15
154	S1, Q1, Q2	3	38
155	S, RQ1, Q2	22	102
159	S, Q2, RQ1	18	62
164	Q2	1	17
168	Q1, Q2	6	12
170	Q1	3	12
175	Q2	2	6
184	Q2	2	12
190	S1, S2, Q2	9	79
192	Q2	1	40
207 and 207 s7	RQ1, Q2	5	17
Cuts 182/191/208	Q1, Q2, RQ1, S1	13	65
US	Q1, Q2, RQ1, S1	32	65
TOTAL		342	1431

Fabrics

Q1 Quartz sand

Q2 Quartz sand with igneous rock/quartzite inclusions

RQ1 Igneous rock/quartzite

RQ3 Igneous rock/quartzite (coarse)

S, S1 and S2 Shell-tempered

12.6 The Worked Stone Patrick Marsden

Context 110 contains a fragment of Millstone Grit (0.7 kg), probably part of the upper stone of a rotary quern. Dating of the quern fragment is uncertain, but a late Iron Age date is possible. Context 112 produced a large piece of coarse sandstone (6 kg) displaying wear on one flattened surface, with particularly smooth worn areas around most of the edges. This is of uncertain function. Adjacent to cuts 182, 191 and 208 was another piece of sandstone (weighing 1.1 kg) which shows tooling marks along a curved edge and is smooth, perhaps showing wear, on another surface. This is also of uncertain function.

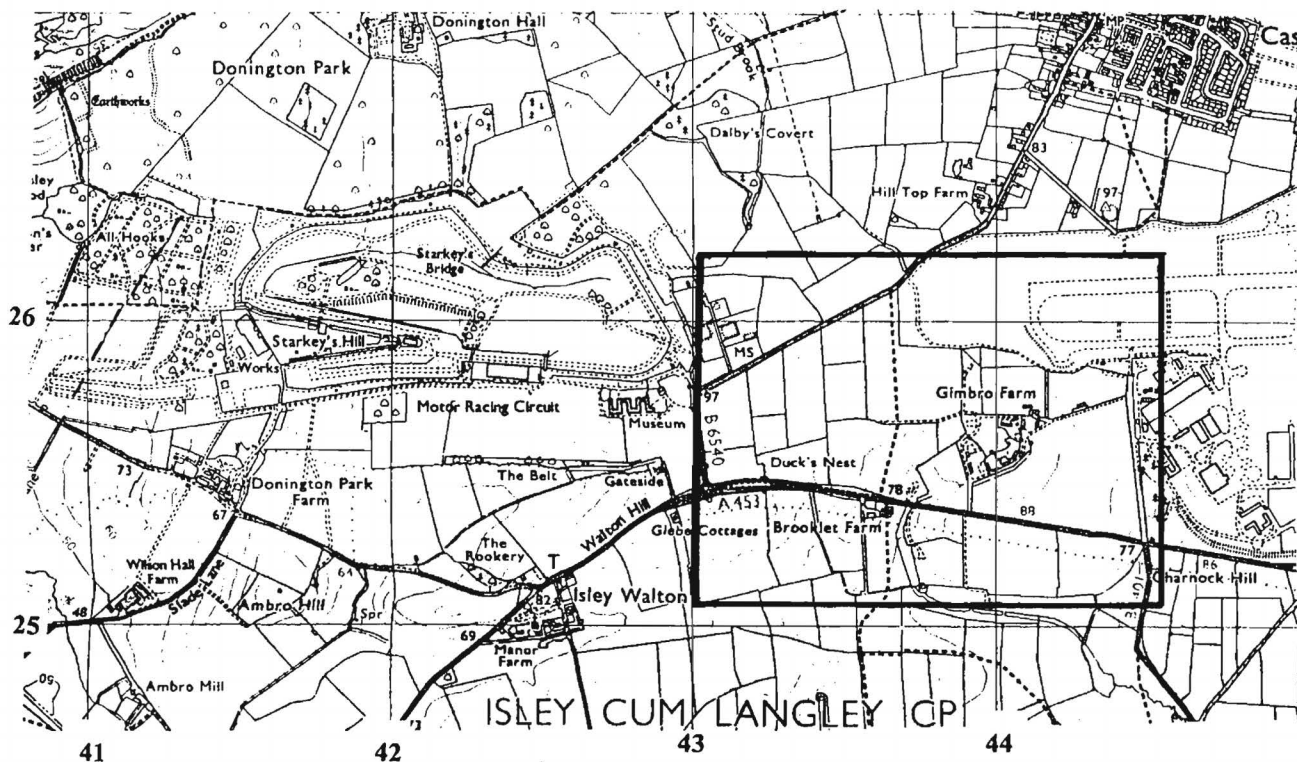


Figure 1 Location of Gimbro Farm (SK440256). Scale 1: 25000

Reproduced from the Ordnance Survey 1:50000 Nottingham and Loughborough area 129 map with the permission of the controller of HMSO. © Crown Copyright. ULAS licence no. AL51800A0001

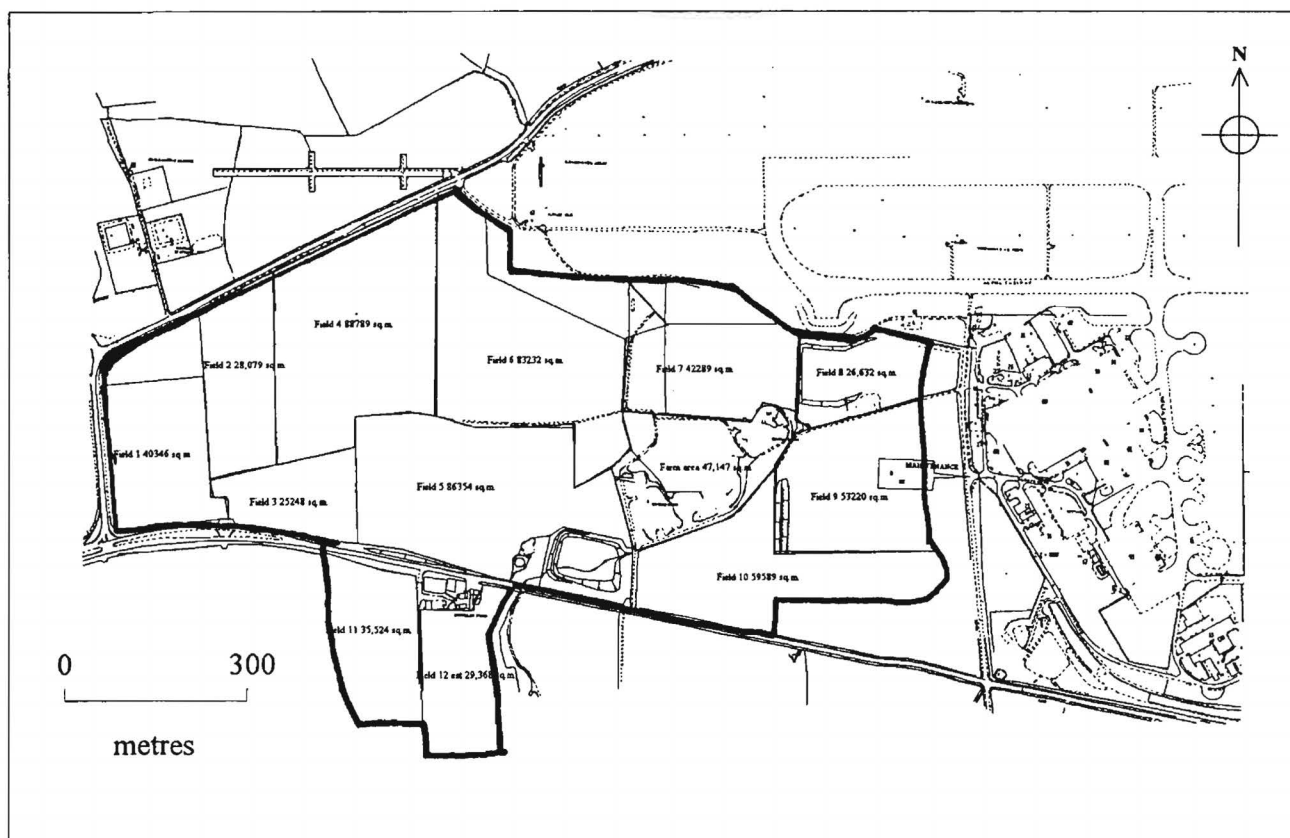


Figure 2 Location of the development site. From site survey.

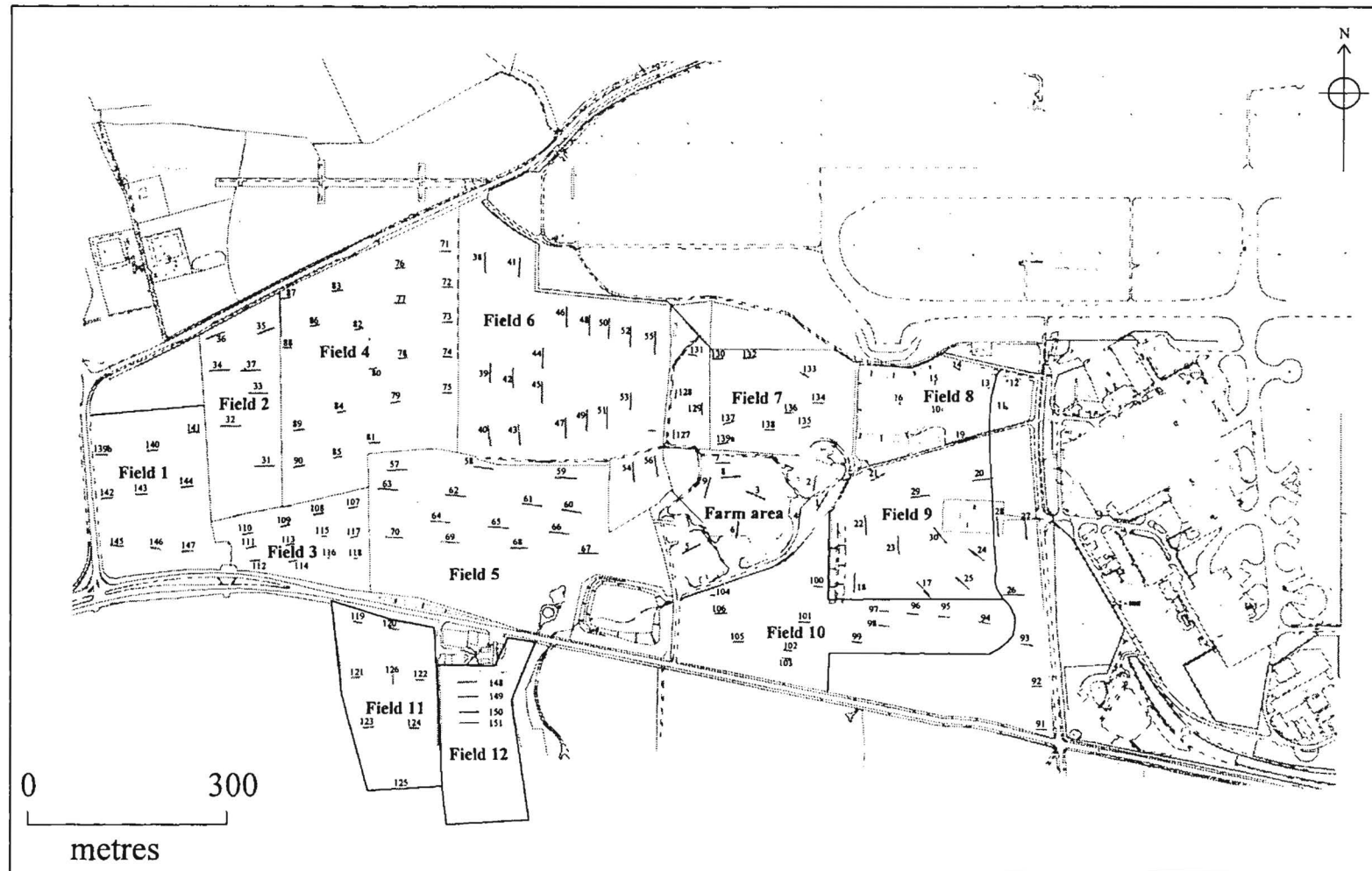


Figure 3: Location plan of trenches 1 - 151 (baseplan supplied by East Midlands Airport).

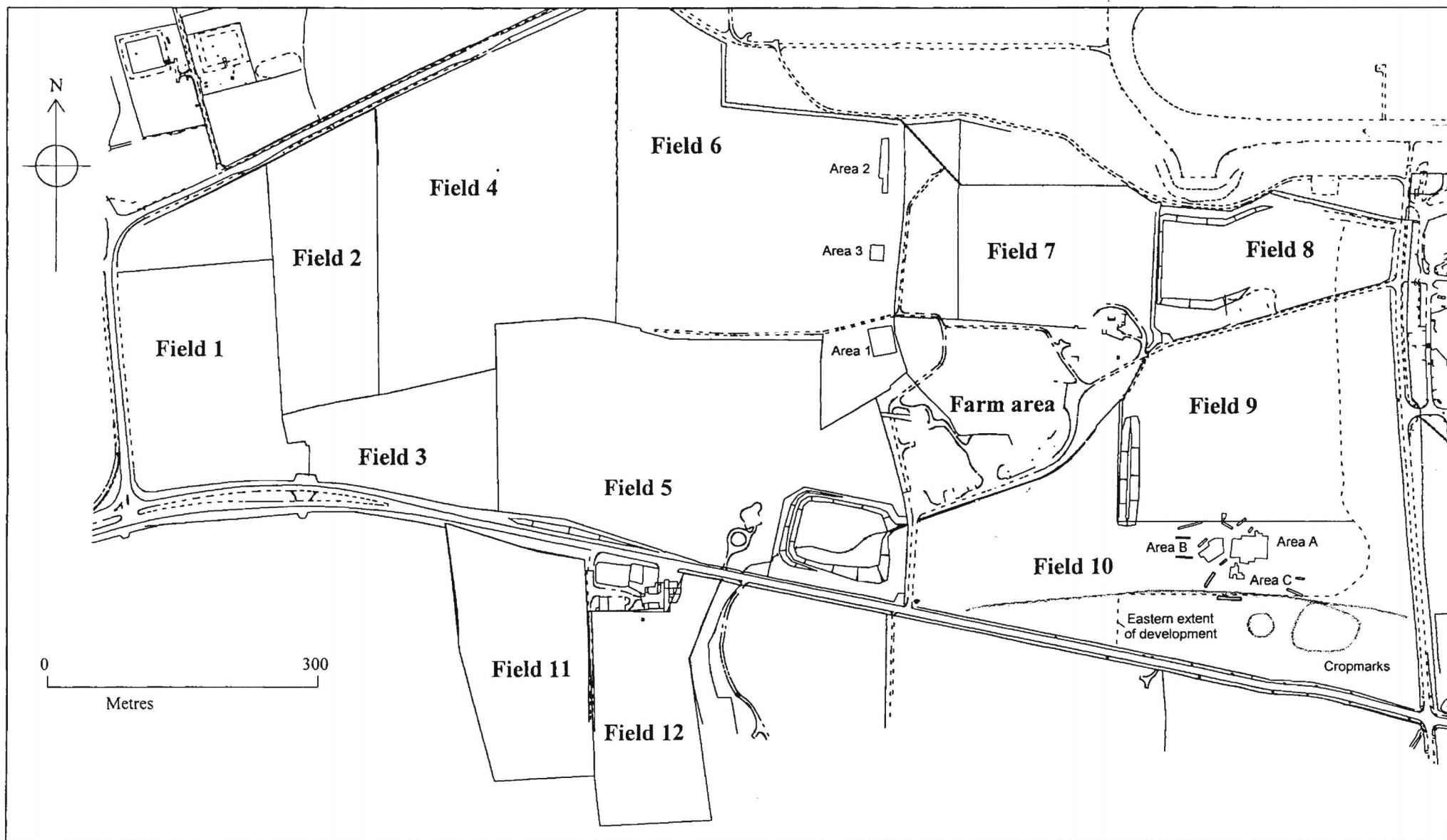


Figure 4: Area excavations A,B,C and 1,2,3, in relation to Cropmarks (42NW.AG) and the development.

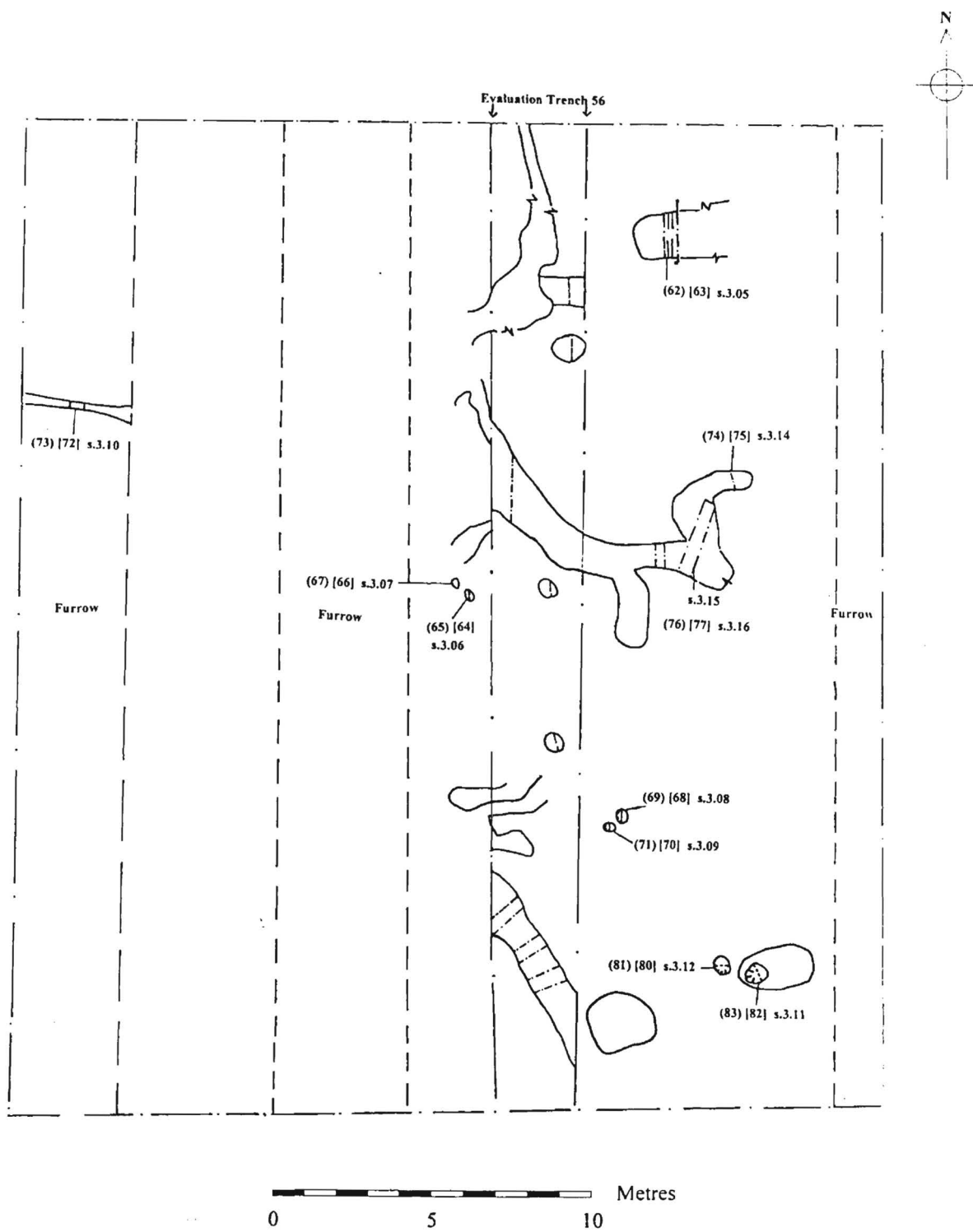


Figure 5 Area 1, Field 6

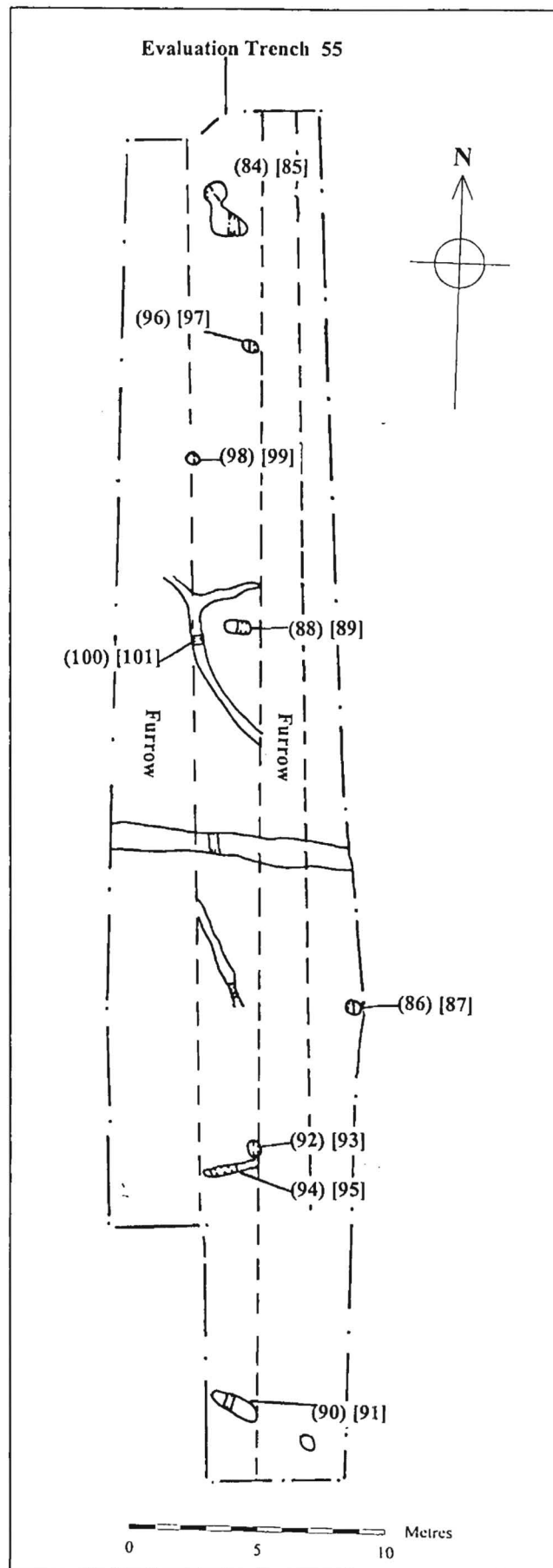


Figure 6 Area 2, Field 6

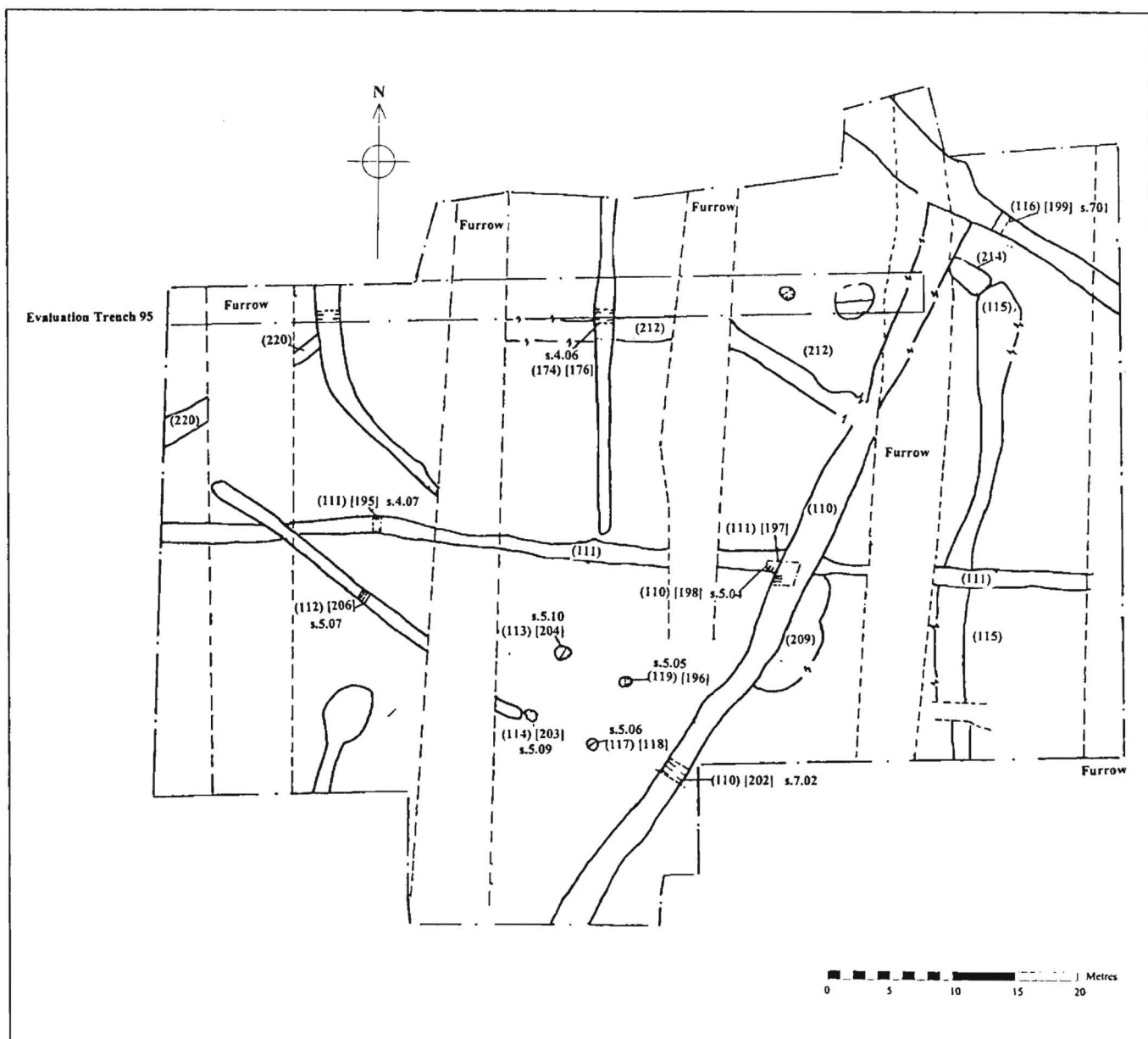


Figure 7 Area A, Field 10

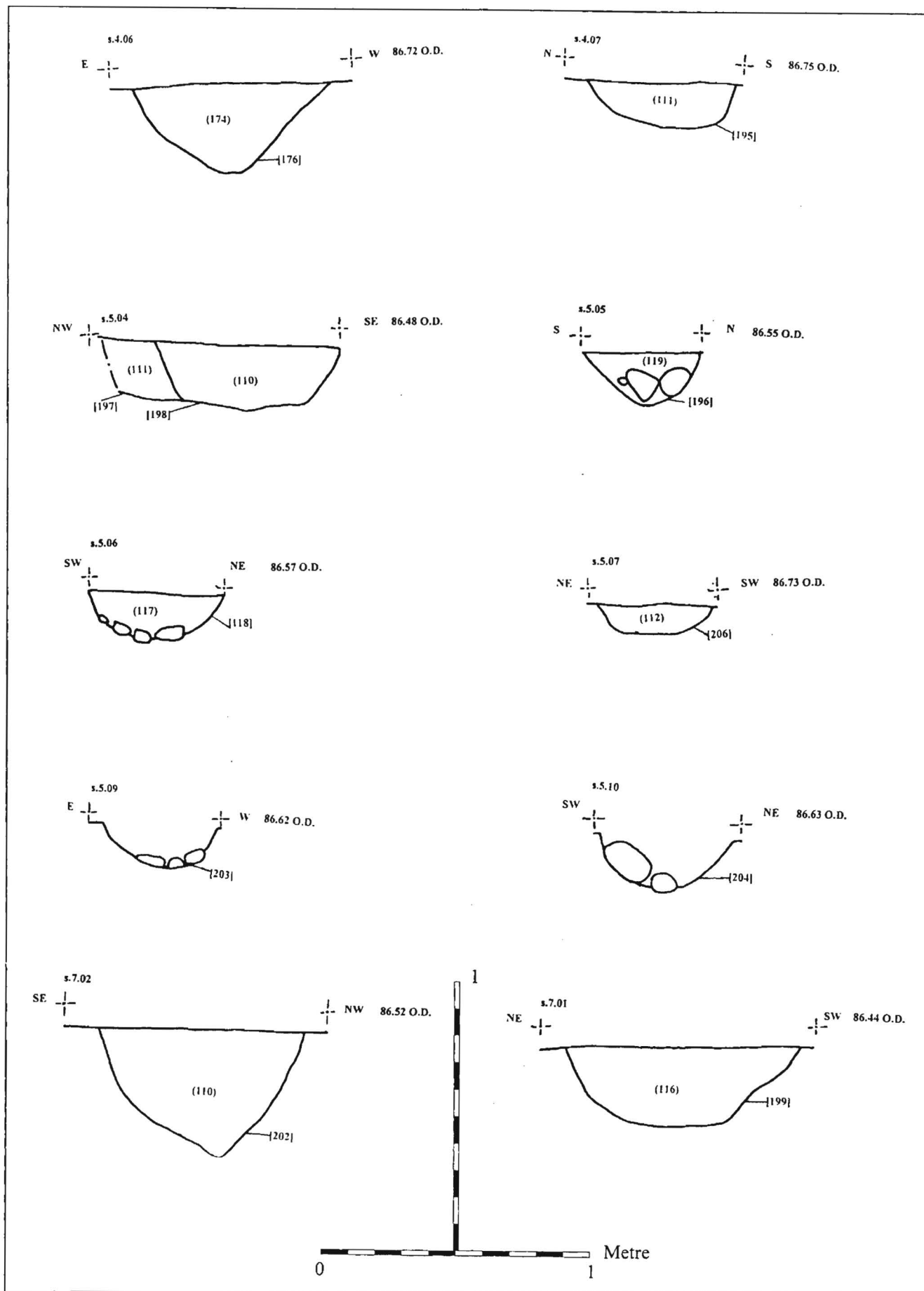


Figure 8 Sections from Area A

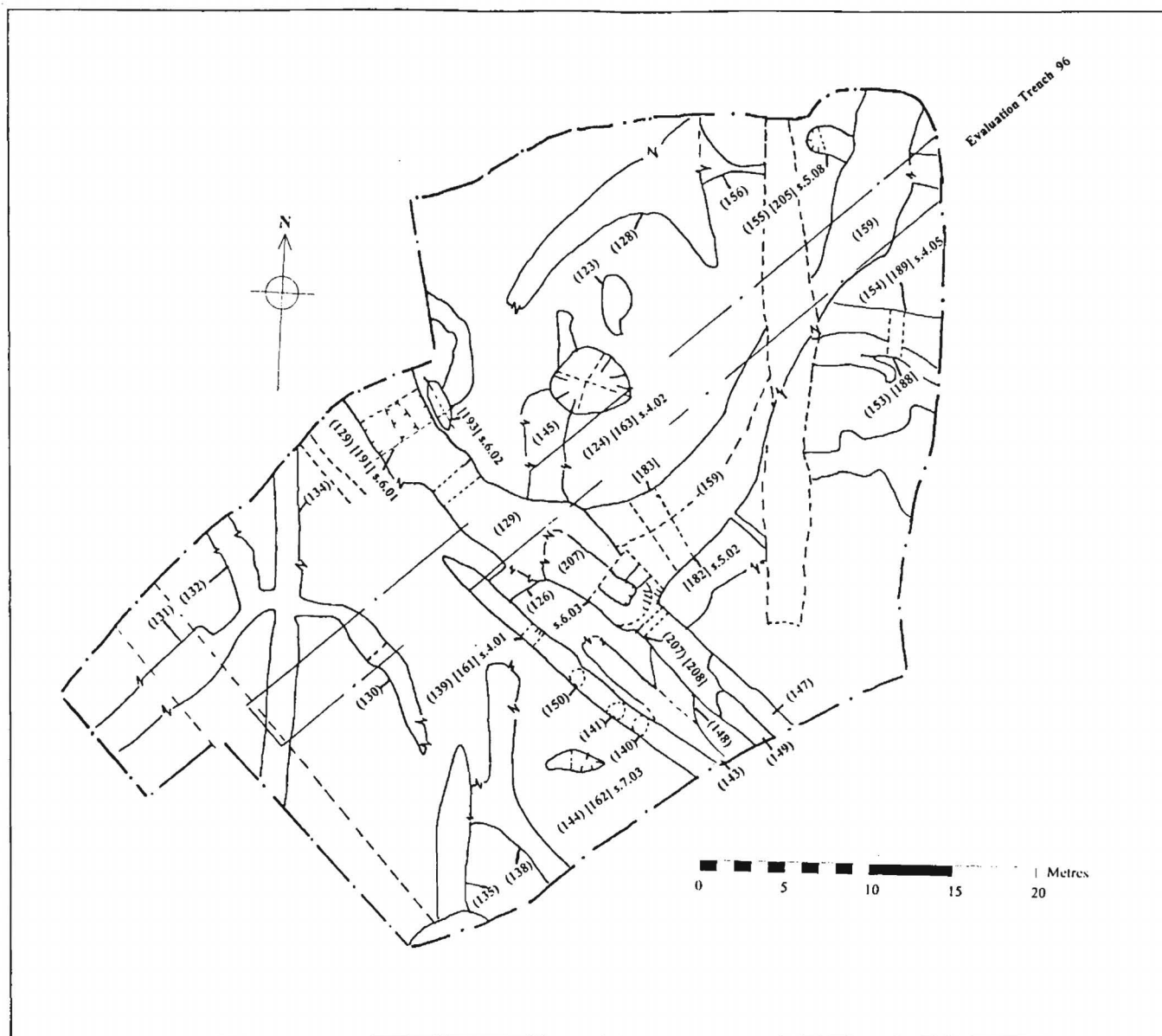


Figure 9 Area B, Field 10

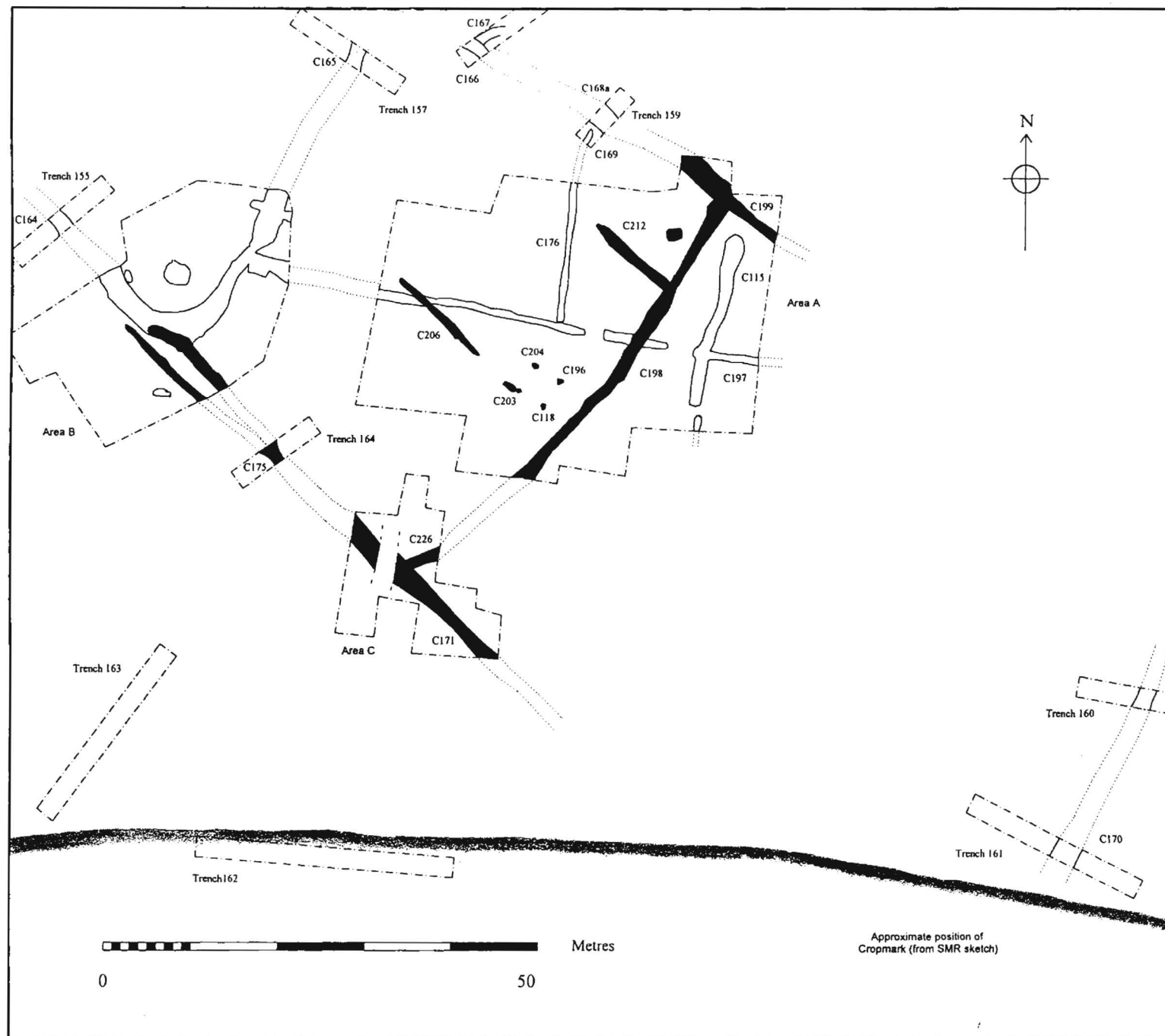


Figure 11 Phases 1 and 2, areas A, B and C (Phase 2 shaded)