EAST OXFORD (OX)
LITTLEMORE

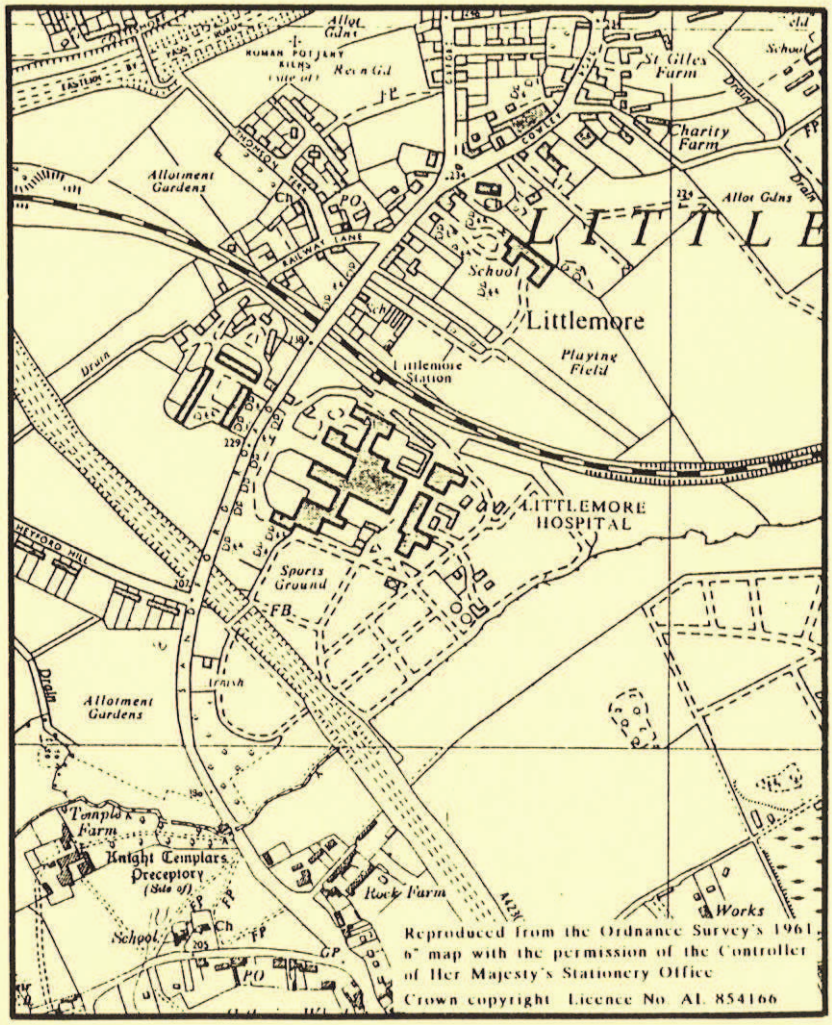
? OXLMHO

Littlemore Hospital, Oxford

Yamanouchi Site Redevelopment

NGR SP 5306 0205

Archaeological Evaluation Report



OXFORD ARCHAEOLOGICAL UNIT

August 1995

LITTLEMORE HOSPITAL, OXFORD

YAMANOUCHI SITE REDEVELOPMENT
NGR SP 5306 0205

ARCHAEOLOGICAL EVALUATION

1 SUMMARY

An evaluation at this site revealed a possible prehistoric palaeo-channel, medieval and post-medieval soil horizons, a large limestone wall (of Victorian date) and a number of post-medieval and Victorian features. The impact of the construction of Littlemore Hospital (in the 1840s) on the underlying deposits is discussed.

2 INTRODUCTION

The Oxford Archaeological Unit (OAU) undertook a field evaluation on behalf of the Anglia and Oxford Regional Health Authority, during August 1995, in the grounds of Littlemore Hospital [Fig. 1]. The evaluation took place in advance of redevelopment of part of the hospital site around the Yamanouchi Research Institute (Planning Application No. NO/0391/93), and the evaluation also included an investigation of the route of a proposed service run (the Service Reserve). A brief was prepared by the Oxford Archaeological Advisory Service after an application for the development was submitted by the Health Authority to Oxford City Council. This brief set out the requirements for a programme of archaeological work in accordance with PPG 16.

Eighteen archaeological trenches were excavated with a JCB machine equipped with a 1.5 m wide toothless ditching bucket. The trenches were situated near to extant buildings, and their size and lengths were determined in part by constraints of available space, and density of service pipes (see trench descriptions below).

A geophysical survey was carried out at the same time as the trial trenching. The survey was carried out by the Bartlett-Clark consultancy under the direction of Alistair Bartlett. It covered four relatively small areas mostly sited in relation to the line of the proposed Service Reserve. It was intended that major anomalies of potential archaeological significance should be investigated by trenching, but in the event no such anomalies were located. The results of this survey appear at the rear of this report in Appendix 2.

3 TOPOGRAPHICAL AND ARCHAEOLOGICAL BACKGROUND

Littlemore Hospital is sited on sandy subsoil on a southeast slope, which descends to a tributary stream of the River Thames (Littlemore Brook). The site lies at a

general level of 62 m O.D.

Limited evidence for prehistoric activity in the area consists of records of two Palaeolithic hand axes (PRN 12905) and a flint arrowhead (PRN 3658) found to the north of this site. Recently flint finds were retrieved from west of the Oxford-Henley road (PRN 3843), and further flint flakes were recovered during work in the grounds of the Ashurst clinic opposite Littlemore hospital. These finds were not associated with archaeological features, however.

The most significant archaeological remains near this development site relate to the Roman pottery industry of the 2nd to the 4th centuries. Pottery kilns have been located at three sites within a 0.5 km radius of the hospital (PRNs 3656, 6191, 8017), the nearest being found at the Ashurst clinic in 1954.

Medieval centres of activity are found at Minchery Farm to the east, the site of a house of Benedictine nuns founded in the 12th century (PRN 1434), and at Temple Farm, Sandford to the west. A preceptory of the Knights Templars was sited here, and some of the earthworks survive today.

Littlemore Hospital was built in 1843 and has grown in size since then. There are no archaeological records relating specifically to the hospital site, although some records of water and drainage services were made available to the OAU.

4 RESULTS: TRENCH DESCRIPTIONS AND INTERPRETATION

A table of context descriptions (layers and features) appears at the end of this report. Modern pipes and services encountered during the excavations are only mentioned in the table, unless they had an implication for machining strategy. Each trench was allocated a block of context numbers which were assigned to layers and features as they were encountered. Each deposit or feature was allocated a single number. Trenches 1-11 were positioned to investigate the potential for archaeological remains in the vicinity of the Yamanouchi Institute. An extra trench was also dug (trench 18) to the SE of this area. Trenches 12-17 covered the line of the proposed Service Reserve [Fig. 2: trench locations].

Trench 1

Trench 1 [Figs. 3, 4] was 10 m long and 1.55 m wide, and was excavated to a general depth of 0.74 m. The trench was located at the south end of the present football pitch, which is situated at the east end of the hospital site.

At the base of the trench (58.56 m O.D.) was a layer of light grey-yellow sand (105), which was interpreted as the natural geological horizon. Layer 105 was overlain by a thin layer of clean reddish-yellow sand (104), 0.07 m thick, which was interpreted as the natural subsoil. A large, irregular shaped feature (107 filled by 106), was observed to cut layer 104 at the east end of the trench: the feature was 2 m wide and was excavated to a maximum depth of 0.14 m. The fill of this

feature was a mid-dark reddish-brown clayey sand, containing occasional flecks of charcoal and natural manganese staining.

The fill of 107 was immediately sealed by a layer (103) of mid-dark grey-brown sandy loam. This layer varied between 0.18 m and 0.32 m in thickness. At the east end of the trench 1 a large feature (110) aligned N-S was cut from the level of layer 103. This feature was at least 1.05 m wide and 0.85 m+ deep, and its fills (109 below 108) contained C20 material which was not retained. The upper fill of feature 110 was sealed by a layer of mid-dark brown sandy loam (111). Layer 111 was 0.19 m thick and extended westwards for 1.26 m before blending with a deposit of ash and cinders (102).

Layer 102 was 0.10 m thick and appeared intermittently along the trench below 111 and below a similar deposit, 101, which contained a quantity of chalk. Layer 101 was sealed by the present topsoil 100, a light brown sandy loam 0.15 m thick.

Interpretation of the deposits in trench 1

Feature 107 seems likely to have been a tree hole, with its irregular shape being formed after the tree had been felled. The fill of 107 was sealed with a deposit of clay loam, 103, most likely formed as a result of the downhill movement of soil, perhaps caused by a combination of agricultural activity and rain action. Layer 103 was not datable. Linear feature 110 was probably a N-S boundary ditch, which was deliberately infilled prior to the use of this part of the site as a football pitch. The finds from the ditch suggest it was open during this century. The presence of the infilled ditch suggests that the grounds of this hospital were expanded in recent times.

The ash/cinder deposits and mixed loams (111, 102, 101) suggest that some landscaping and levelling took place for the creation of the football pitch.

Trench 2

Trench 2 was located c. 10 m to the east of the Rivendell building, and was aligned NW-SE. The trench was 10 m long and 1.55 m wide, and was excavated by machine to a general depth of 0.93 m.

The lowest deposit in the trench was a layer of brownish-yellow sand (205), with occasional patches of grey-white sandstone. This layer was interpreted as the natural horizon, and lay at 62.75 m O.D. Two shallow linear features, 203 and 204 were observed to cut the natural. These features were aligned E-W and were spaced 6.50 m apart, centre to centre. Both features were filled with a soil which blended imperceptibly with an overlying deposit of mid-brown silty sand (202). Layer 202 was 0.45 m thick, and contained two sherds of glazed pottery. Layer 202 was sealed by a layer of sand, 201, which was the bedding material for the present tarmac surface.

Two modern features were uncovered: a ceramic pipe containing cables was revealed at a depth of 0.50 m below the surface at the NW end of the trench, and was not removed. A brick-built manhole in the centre of the trench was partially removed - the man hole was square, measuring 0.80 x 0.80 m, and was at least 0.90 m deep.

Interpretation of deposits and features in trench 2

Features 203 and 204 would appear to be furrows caused by ploughing [Fig. 11]. Their fills were indistinguishable from the layer above which contained two sherds of post-medieval pottery. The deposits thereafter were modern. Nevertheless the character of 203 and 204 might suggest that they were of medieval date. No certain medieval or earlier deposits were encountered in this trench.

Trench 3

Trench 3 was aligned E-W in the garden of the Rivendell Building, and was 5 m long. The trench was 0.95 m deep at the west end and 1.10 m deep at the east.

The earliest deposit in this trench was a layer of yellow clayey sand, 304, interpreted as the natural (62.96 m O.D.). The natural was overlain by a layer of yellowish-brown silty sand (303) with 1% charcoal flecks. Layer 303 was 0.34 m thick, and lay below 302, a layer of brown silty sand with 10% charcoal inclusions: this layer was 0.29 m thick. Layer 302 lay below a layer of pebbly sand, 301, which was 0.15 m thick, which was in turn sealed by 300, the present topsoil.

Two modern service pipes were encountered: a ceramic pipe (306) aligned NW-SE was removed 0.25 m below the present ground surface. At the base of the trench lay an E-W aligned iron pipe in a deep service trench, 305, which had been cut from the level of layer 301. This service trench was 0.61 wide and occupied a third of the trench space.

Interpretation of the deposits in trench 3

This trench revealed no archaeological features. Layer 303 perhaps represents a ploughsoil, but was undated. Deliberate dumping occured in the form of layers 302 and 301, which probably date to the time of the hospital construction. The deposits thereafter were modern (C20).

Trench 4

This trench was located on the site of an extant flower bed to the south of the Rivendell Building. The trench was aligned E-W, and owing to the presence of an E-W live service pipe (406), its width was reduced to 0.65 m.

Natural sand and sandstone (405) was revealed at a depth of 1.16 m below the

surface at 64.01 m O.D. Overlying this layer and thereafter were a series of superimposed loam soil horizons of similar nature: layer 404 was sealed by 403, in turn sealed by 402, and followed by 401. Above 401 lay the present flower bed topsoil, 400.

Interpretation of deposits in trench 4

No archaeological features were present in this trench. The sequence of soils must relate to the creation and use of the flower bed, and are therefore modern. No finds were recovered from the excavated spoil.

Trench 5

Trench 5, aligned N-S, was situated between two former building foundation bases set in disused ground to the north of the Yamanouchi Institute Building. This trench was 5 m long and 1.55 m wide, and was excavated to a depth of 0.96 m. Natural yellow sand (503) was identified at the base of the trench (63.55 m O.D.) below a 0.60 m thick layer of reddish-yellow sand, 502. This layer was overlain by 501, a layer of brown loam 0.32 m thick. This in turn was sealed by the present tarmac surface (500).

Interpretation of deposits in trench 5

No archaeological features were present in this trench. Sand 502 seemed to be redeposited, and may represent levelling at the time of the construction of the hospital site. Layer 501 is a recently cultivated soil.

Trench 6

This 5 m long trench was aligned N-S and located to the north of the Yamanouchi Building. Brownish-yellow natural sand (605) was encountered 1.30 m below ground level at 63.08 m O.D. This was sealed by a layer of brown silty sand (604) containing charcoal flecks, 0.65 m thick. Above 604 lay 603, a layer of yellow sand 0.16 m thick. Layer 603 was sealed by 602, a layer of dark brown silty sand with some charcoal inclusions, which was 0.11 m thick. The present tarmac surface, 600, overlay 601.

Interpretation of deposits in trench 6

No archaeological features were observed in this trench and none of the deposits were dated. As in trench 5, most of the layers may represent dumped material sealed beneath a recent topsoil. The origin of layer 604 is unclear.

Trench 7

Trench 7 was located immediately east of the present building known as the Oxford Snooker Club. The location, length and orientation of this trench had to be changed owing to the presence of live service runs: the trench was moved to the south of the proposed location, and aligned closer to N-S. The trench was 7.20 m long [Figs. 5, 6].

Natural yellow sand (709) was observed 1.18 m below ground level at 63.96 m O.D. Layer 709 was sealed by 706, a layer of 'dirty' sandy material. At the level of layer 706 a large cut feature (708 filled by 707) was observed in the east side of the trench. The feature was square shaped, the majority of it being under the east baulk of the trench. The fill (707) of the feature was a very dark grey, silty loam and contained a substantial quantity of metal objects, white china, and animal bone. The feature was interpreted as modern (C19/20) and was not fully excavated.

The fill of 708 was overlain by a layer of black/grey ash, cinders, slate and gravel. This layer was 0.62 m thick, and lay beneath a deposit of crushed bricks and concrete (703). This deposit was 0.21 m thick, and formed the foundation and construction level of a brick-built structure which was removed by the machine. This structure is documented on recent plans of the site.

Layer 703 lay below 702, a compacted layer of brown loam and broken bricks. Two parallel brick structures (composite context 701) aligned E-W crossed the trench and were bedded on a concrete plinth set into soil layer 703. Structure 701 lay immediately below the topsoil 700.

Interpretation of structures and features in trench 7

Layer 706 above the natural represents either dumped material, or possibly disturbed subsoil. Feature 708 was a pit, perhaps dug at the time of the construction of the hospital and used for dicarding rubbish. The quantity of pottery (clearly C19 or perhaps later in date) and metal fragments suggests this, although the feature may have been originally dug for sand.

The ash and brick layers 704 under 703 accumulated during the construction of the brick building, which was used as a canteen. The west wall of this building was removed during the excavation of this trench. Recent maps show a coridoor linking the canteen to the Snooker Hall building: the parallel brick structure 701 would appear to have been this structure. No features or finds predating the 1840s were observed in this trench.

Trench 8

Trenches 8 and 9 were located within the grounds of the Yamanouchi Institute. Trench 8 was 5 m long (shorter than the proposed 10 m length due to live services)

and was sited at the north end of the Institute grounds.

Natural sand (803) was observed at a depth of 1.10 m (62.35 m O.D) and was sealed by 802, a reddish-brown silty sand 0.61 m thick. Layer 802 lay below 801, a friable dark grey loam with charcoal inclusions which was 0.22 m thick. Layer 801 was covered by 800, the present topsoil.

Interpretation of deposits in trench 8

A series of soil layers had accumulated above the natural, although their function was not obvious. It is possible that 802 and 801 were ploughsoils that predated the construction of the hospital buildings. Layer 801 contained two pottery sherds of post-medieval date, but the layers below were undated. It is also possible that these soils were imported for landscaping of the garden around the Yamanouchi Building. No archaeological features were observed in this trench.

Trench 9

Trench 9 was aligned SE-NW and was 10m long. Natural yellow sand (904) lay 1.08-1.20 m below ground level at approximately62.15 m O.D. This was covered with a 0.50 m thick layer of reddish brown silty sand (903) - one sherd of pottery was retrieved from this layer. Layer 903 was sealed by 902, a 0.40 m thick deposit of reddish-brown sand with charcoal inclusions containing sherds of pottery and tile. Above 902 lay 901, a mid-grey brown silty sand containing stones and charcoal. This layer was 0.22 m thick and was sealed by the present topsoil, 900.

Interpretation of deposits in trench 9

The soil profile was similar to that in trench 8. The reddish-yellow sand layers 902 and 903 may be former ploughsoils or as perhaps in trench 8, could have been deposits of imported material. One sherd of abraded Roman pottery was recovered from 903, and one Roman and two medieval sherds were recovered from 902. Post-medieval tile was recovered from 902. Layer 903 may have been a medieval ploughsoil, and it is possible 902 was medieval, but was contaminated by later material.

Trench 10

Trench 10 [Fig. 7] was located in an area of overgrown land (formerly occupied by greenhouses) to the SE of the Yamanouchi Building. The trench was 15 m long and aligned NW-SE. The trench was in this instance excavated to the top of the latest archaeological horizon, with deep machine dug sections excavated at each end of thre trench in order to identify the natural horizon. The water table was encountered at 58.50 m O.D

Natural sandstone bedrock (1012) was identified at the S end of the trench at a

depth of 2.18 m, 58.24 m O.D. Above the natural lay a 1.10 m thick deposit of sandy clay (1005). At the N end of the trench a large sandstone boulder was present within layer 1005. The size of the boulder prevented it being removed by the machine. Layer 1005 was overlain by 1004, a layer of reddish-yellow sandy clay which was 0.38 m thick.

Two features were cut into layer 1004: 1003 filled by 1002 was a rectangular flat based cut with vertical sides. The fill of this feature was a dark brown silt loam with gravel inclusions and sherds of modern glazed pottery. Feature 1003 was 0.10 m deep and measured 1.50 x 1.10 m; the feature was located to the S end of the trench. A smaller feature (1007) at the S end of the trench was excavated south of 1003.

Feature 1007 was rounded with steep vertical sides and excavated to a depth of 0.24 m. The feature measured 0.25 x 0.25 m, and had a circular shape. No dating evidence was recovered from the excavated fill, 1006.

The fills of these features and layer 1004 were covered with 1001, a layer of dark brown silt loam containing gravel an d charcoal flecks. This deposit was 0.20 m thick and underlay the present topsoil 1000 throughout the trench. The remnants of several recent garden structures were removed by machine.

Interpretation of deposits and features in trench 10

The undated thick clay deposits 1005 under 1004 are thought to have been fills of a large infilled paleochannel or stream course (1012) or infilling of a naturally formed hollow. The limits of this feature were not found within the confines of the trench. If so, it is possible that that this was the precursor to the present brook located at the extreme S end of this site. No dating evidence was recovered from these deposits. The presence of the large sandstone boulder within 1005 is difficult to explain, but may be no more than a natural geological outcrop.

The features cut into 1004 are modern: the fill of 1002 contained C20 pottery. These features were dug when the land was used for greenhouses. The rest of the deposits in the trench were of recent origin.

Trench 11

This 5 m long trench was located outside the S gate of the Yamanouchi Building on sloping ground. Natural yellow sand with inclusions of sandstone (1102) lay 0.41 m below the present ground level at 61.83 m O.D. The natural was cut by two features within the trench.

Feature 1106 was aligned E-W and ran across the S end of the trench. The cut was 0.70 m deep and 0.58 m wide (max.) and was filled with 1105, a compacted dark brown sand which produced no datable material. To the north of 1106 was a large irregular feature 1104, filled by 1103 and 1102. This feature was 2.10 m

wide and 0.58 m deep with a irregular base and edges. The fills of 1104 were sandy loams and both contained modern finds.

Both of these features were sealed by 1101, a layer of grey-brown sandy loam 0.30 m thick which underlay the present topsoil, 1100.

Interpretation of deposits and features in trench 11

Two modern features were cut into the natural sand. 1104 suggests from its large irregular shape that it may have been a tree hole. The tree was probably removed from the level of layer 1101. Linear feature 1106 was also thought to be modern, but was not dated. The fill of 1106 was similar to the tree hole fill, and on that basis the 1106 is thought to be of recent origin. It could have functioned as a shallow drainage ditch.

Trench 12

Trench 12 was excavated immediately south of the Rivendell 3 building. The trench was 8 m long instead of the proposed 10 m owing to the presence of a large limestone block at the E end of the trench in a layer of rubble, 1201.

Natural yellow silty sand (1205) was observed at a depth of 1.58 m below the surface, at 62.84 m O.D. This was sealed by a layer of light reddish-yellow silty sand (1204) 0.34 m thick, which produced no dating evidence. A thin lens of yellow sand (1206) 0.10 m thick overlay 1204 at the E end of the trench. Above 1206 lay 1203, a layer of red-brown silty sand 0.31 m thick which produced several pottery sherds.

Above 1203 was 1202, a 0.30 m thick layer of dark brown sandy silt, which was in turn sealed by a layer of sandy clay (1201), containing frequent stone and building rubble. Layer 1201 lay below the present topsoil 1200.

Interpretation of deposits in trench 12

A series of soil layers were observed in section. Above the natural subsoil 1204 was layer 1203 which produced two Roman and one medieval pottery sherds. It is possible, therefore that this layer represents a medieval ploughsoil. Subsequent layers were recently formed and contained modern finds.

Trench 13

Trench 13 [Fig. 8] was located to the S of the west end of the Rivendell 3 building. The 10 m proposed length of trench 13 was reduced to 7.5 m owing to the presence of live services at its west end. Machine excavation of the trench was severely restricted due to the presence of several live services, including an 11,000 V electric cable, and the presence of a large thick concrete slab - possibly a recent road

surface. It was possible, however, to excavate a small slot in the centre of the trench by hand.

Natural sandstone bedrock (1307) was observed at a depth of 1.12 m below the surface, at 63.96 m O.D. This was overlaid by 1305, a layer of compact dark-grey sandy clay containing pieces of sandstone. This layer was 0.50 m thick and was sealed by 1306, a deposit of clay containing bricks and other modern debris. The large concrete slab, 1301, lay above 1306 and both were directly beneath the topsoil, 1300. Other contexts in this trench were modern live service pipes.

Interpretation of deposits in trench 13

The only deposit which was not definitely modern was 1305 which lay above the natural sandstone. Layer 1305 was undated. interpretation is possible due to the density of pipes.

Trench 14 [Figs. 9, 10]

This 15 m long trench was excavated in an open area to the east of the present chapel building. The trench was aligned NW-SE. Natural yellow sand with sandstone outcrops (1405) was uncovered at a depth of 1.24-1.50 m below the surface, approximately 64. 50 m O.D .

Above the natural was 1404, a layer of light reddish-brown sand, 0.20 m thick. This layer produced no dating evidence, and was sealed by 1403, a 0.34 m thick layer of reddish-brown silty sand. This layer produced several sherds of pottery and animal bone.

At the west end of the trench was a substantial limestone built wall (1406) aligned approximately E-W. A 1.80 m length of the structure was uncovered. The stonework was 1.14 m high and 0.60 m wide, with a wider offset footing at the base of the wall. The offset projected 0.14 m from the vertical face, and was 0.28 m high. The limestone blocks were bonded with a yellow sandy mortar which contained charcoal flecks. The stonework had been truncated at the top of layer 1402, a layer of dark brown silty sand including sandstone lumps and charcoal flecks.

Layer 1402 was overlain by a layer of limestone debris, 1407, which was 0.16 m thick. This layer clearly butted the stone structure 1406. Layer 1407 lay below 1401, a layer of yellow-brown silty sand, 0.13 m thick, containing brick and limestone fragments, which was sealed by the present topsoil 1400.

Interpretation of deposits and structures in trench 14

The stone built structure (1406) was a wall associated with the Hospital, and most probably the old boundary wall of the site. The construction technique of the wall was slightly problamatical owing to the presence of the offset footing and the

absence of a visible construction cut. If the wall was constructed from the level of layer 1404, with the offset footing set flush in a cut through 1404, then layer 1403 (above 1404) would have to be redeposited soil.

The only pottery from 1403 was of Roman and medieval date, although a piece of probably post-medieval tile was also present. This might suggest that 1403 was an old ploughsoil, and was present at the time of the construction of the wall. The absence of a visible construction cut through 1403 is, however, not easily explained, though the soft friable character of 1403 may mean that a distinct cut line through it did not survive.

The wall was demolished at the level of 1402, a recent topsoil, with the demolition debris 1407 falling to the south of the wall. Some landscaping on the site took place (1401) before the present turf was laid. The date of the demolition of the wall is not known, but was presumably in this century.

Trench 15

This trench was originally to be located in a small area behind the infirmary. However there was no access possible for the machine, and the trench was moved to a position to the NW of trench 14 within the open space to the east of the chapel

Trench 15 was 5 m long and orientated NW-SE. Natural yellow sand (1503) was revealed 1.18 m below ground level, at 65.67 m O.D. The sand was overlain by 1502, a layer of dark grey sandy loam 0.41 m thick. This deposit contained frequent inclusions of brick, tile and limestone pieces. Layer 1502 lay beneath 1501, a layer of sand and mortar fragmants which was 0.30 m thick. Topsoil, 1500, sealed 1501.

Interpretation of deposits in trench 15

The soil profile of this trench was different from that of trench 14. The dark layer above the natural was probably formed at the time of the construction of the chapel, as was the sandy deposit 1501. The absence of any 'ploughsoil' type deposits suggests that the ground was cleared prior to the construction of the chapel. No archaeological features were observed in this trench.

Trench 16

Trench 16 was located on the lawns in front of the infirmary and was 15 m long. Natural yellow sand, 1603, was identified 0.80 m below the present ground surface, at 66.71 m O.D. This was sealed by 1602, a layer of reddish-brown sandy silt 0.35 m thick.

An ovoid feature was cut from the level of 1602. The feature, 1604, was 1.40 m

wide and 0.41 m deep, and was located in the centre of the trench. The base of the feature was flat with 30° sloping edges, and the feature extended under the N baulk of the trench. The fill (1605) of 1604 was a compacted dark-grey sandy loam which contained several modern pottery sherds and metal and glass fragments.

The fill of cut 1604 was overlain by layer 1601, a compact reddish brown sandy loam containing small stones and pieces of tarmac. This layer was 0.40 m thick and was sealed by the present topsoil, 1600.

Interpretation of deposits in trench 16

A single post-medieval pit (1604) was cut into the natural subsoil and sand. The function of the pit was unclear.

Trench 17

Trench 17 was positioned near to the Sandford Road at the extreme west end of the hospital site. This trench was 5 m long and natural yellow sand (1705) was observed at a depth of 0.63 m below the surface, at 66.62 m O.D.

A large, near circular feature was present in the N part of the trench. Cut 1704 was 0.70 m deep and c.4 m wide. The base of the feature was infilled with 1703, a compacted reddish brown sandy loam which contained several pottery sherds and metal objects. Above 1703 lay 1702, a slightly darker fill which also contained a few pottery sherds.

Fill 1702 was sealed by 1701, a layer of compacted reddish-brown silty sand which was 0.40 m thick. This deposit underlay 1700, the present topsoil.

Interpretation of deposits in trench 17

A single modern pit feature (1704) containing several sherds of residual Roman pottery and two post-medieval/Victorian sherds was cut into the natural subsoil and sand. The size of the feature might suggest that it was a small sand quarry. No other pre-modern features or deposits were observed.

Trench 18

Trench 18 was sited in the SE corner of the site to the east of trench 10. The trench was added to the original proposal of trench locations after the OAU learned that a culvert was to be re-routed to this part of the site.

Trench 18 was 5 m long and aligned NE-SW. Natural sandy clay (1804) lay 1.0 m below the surface, at 58.80 m O.D. This layer sealed 1805, a thick natural layer of sandy clay. A feature was observed to cut into layer 1804. Cut 1803 was a large

irregular shaped feature located at the E end of the trench. The feature was excavated to depth of 0.45 m and was 1.40 m wide. One modern sherd of glass was recovered from the fill 1802, which consisted of a light grey silty clay.

Fill 1802 was sealed by a layer of dark grey-brown clay loam (1801) containing charcoal and flower pot fragments. Layer 1801 lay below the present topsoil 1800.

Interpretation of deposits in trench 18

The single pit feature (1803) contained a fragment of modern glass. The deposits above this feature relate to the use of this part of the site for greenhouses. No pre-modern features or deposits were present in this trench.

5 THE FINDS

The overall quantities of finds recovered were small. They amounted to 49 sherds of pottery of all periods and four pieces of tile, one of slate, one of slag, one of clay pipe and two of glass. A few fragments of animal bone were also recovered. With the exception of some of the pottery, most if not all these finds were of relatively recent date. Two tile fragments were problematical, since such material can be difficult to date on the basis of fabric alone. Single pieces of tile in contexts 902 and 1403 therefore might possibly have been of medieval rather than later date (in both cases they were associated with medieval pottery sherds), but in both cases a post-medieval date is more likely.

Thirteen pottery sherds were of Roman date. These consisted of oxidised and reduced coarse wares and a single mortarium fragment. For the most part these sherds occurred with later material, and only in contexts 903 and 1702 did they form the sole dating evidence.

Ten sherds were of medieval date. All were very small (the total weight of these sherds was c 30 gm) and confident identification and close dating was therefore difficult. In those contexts for which the medieval pottery provided a terminus post quem (1203, and just possibly 902 and 1403, depending on the date of associated tile - see above) a 13th-14th century date is likely but not certain.

The great majority of the post-medieval pottery was of 19th-20th century date and contemporary with the construction and use of the hospital.

6 DISCUSSION

The recent investigation is the first archaeological work carried out on the site of Littlemore hospital. Although limited in nature, this evaluation has provided some evidence of land use before and after the present hospital was constructed.

No evidence of prehistoric settlement or activity was observed. The palaeochannel

or stream course in trench 10 was undated, but could have been open during this period.

A small amount of Roman pottery was retrieved from broadly equivalent stratigraphic deposits at the S end of the site. This pottery was, however, found within layers containing mostly medieval pottery and must therefore be residual. Several Roman sherds were also recovered from the fills of a modern pit at the west end of the site. These finds confirm the presence of localised Roman activity in the area, as has been found at the adjacent Ashurst Clinic site to the west. No evidence of Roman settlement (in the form of features or structures) was observed in any of the evaluation trenches.

No medieval features or structures were observed. Medieval pottery was recovered from several layers (specifically layers 902, 1203, 1403 and 1703) at the south end of the site. These layers are thought to be ploughsoils, suggesting that land use in that period was agricultural. Some of these 'medieval'layers were contaminated by post-medieval material.

The construction of the hospital in 1843 and subsequent building additions has in parts of the site removed nearly all traces of former soil horizons. The trenches to the north of the Yamanouchi building revealed that the construction of structures and landscaping had removed deposits down to the depth of the natural sand. A ploughsoil and plough furrows were present in trench 2, the pottery dating to the post-medieval period.

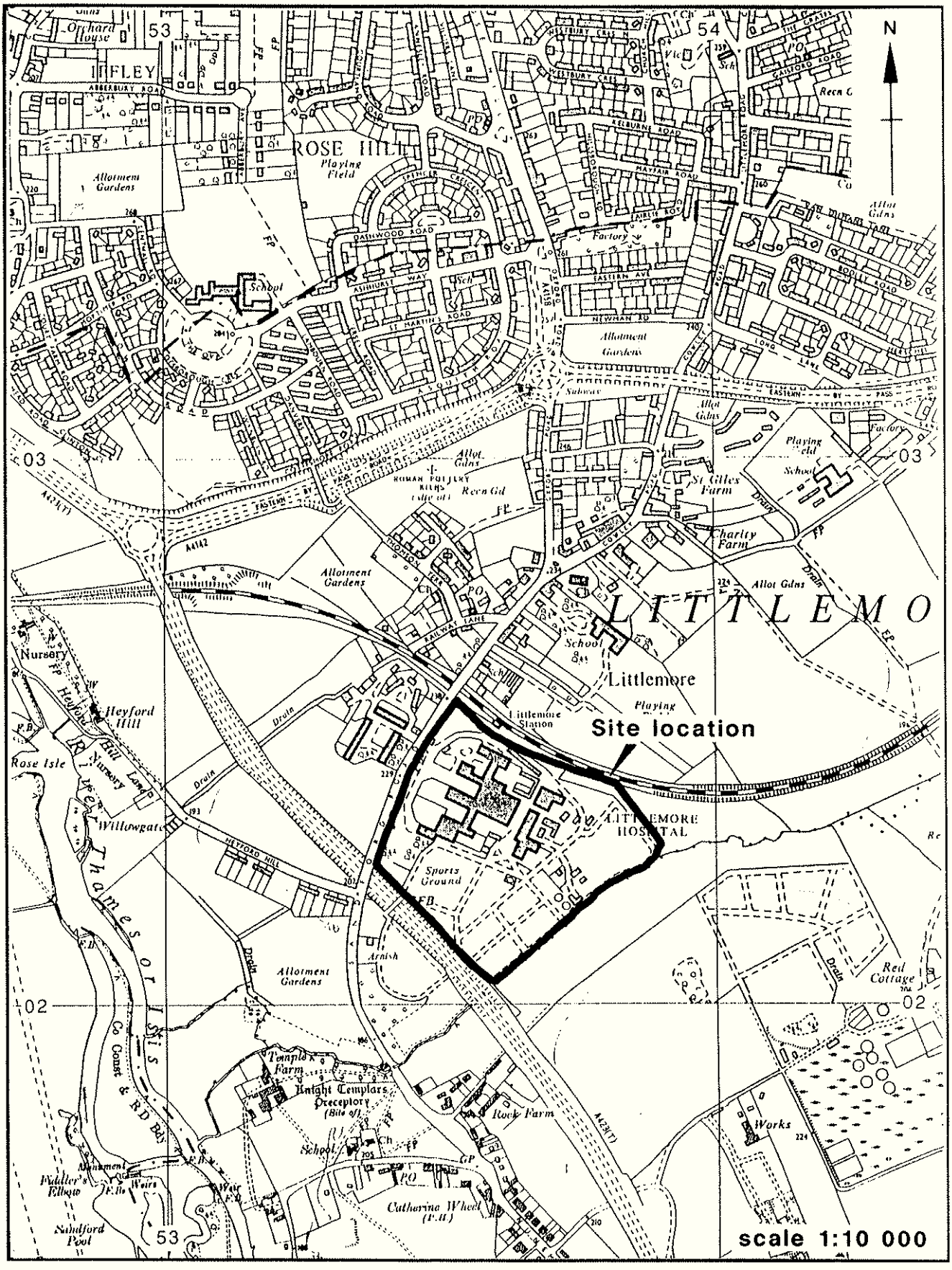
Evidence that Littlemore Hospital has continued to expand in size since its construction was shown by the backfilled ?boundary ditch in trench 1, and the demolished stone boundary wall in trench 14.

7 CONCLUSIONS

The sequence of deposits observed and the absence of obvious archaeological features and structures suggests that this area of Littlemore was historically used for agricultural purposes, perhaps in both the Roman and medieval/post-medieval periods. It is possible, however, that features and structures of archaeological significance were completely removed at the time of the hospital construction. Localised features of any date could have existed outside the areas examined, but there was no evidence suggesting intensive activity of any period on the site before the construction of the hospital in 1843.

J.Hiller and P.Booth
Oxford Archaeological Unit
August 1995

OXLH



Reproduced from the Ordnance Survey's 1961 6" map with the permission of the Controller of Her Majesty's Stationery Office

Figure 1

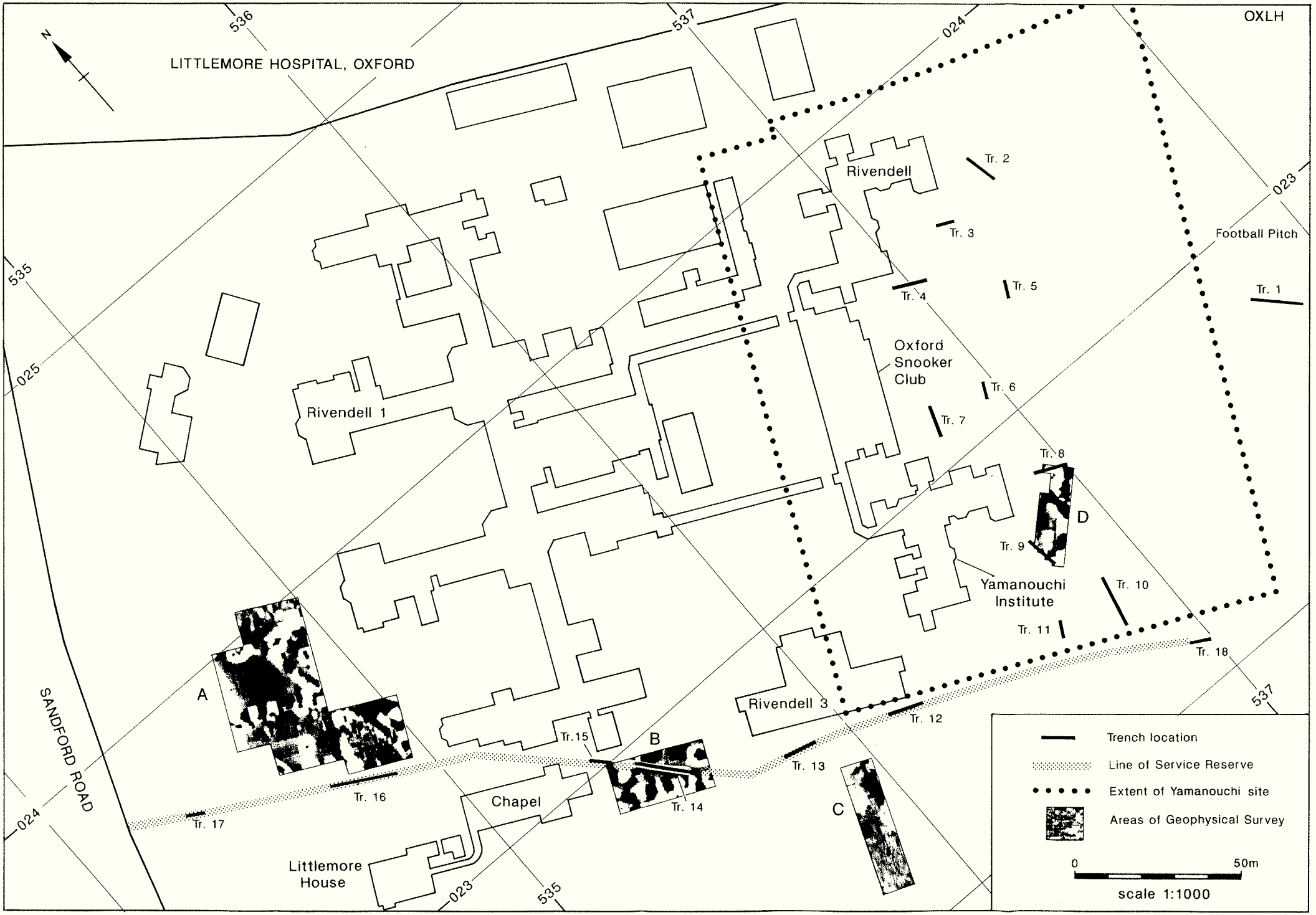
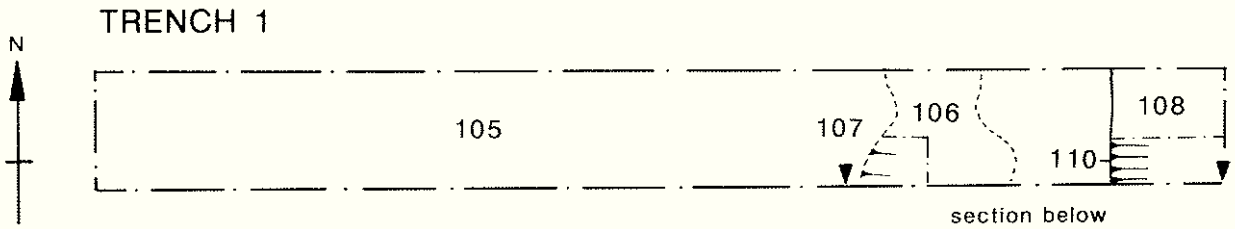
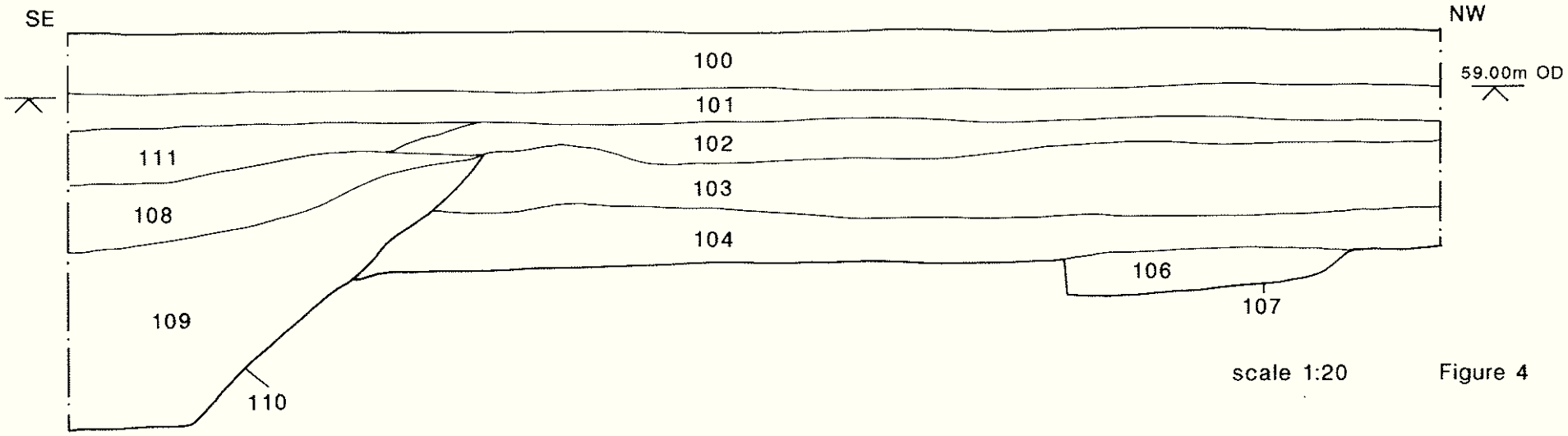

OXLH
LITTLEMORE HOSPITAL, OXFORD
N
536
537
024
023
535
025
Rivendell
Tr. 2
Tr. 3
Football Pitch
Tr. 1
Tr. 4
Tr. 5
Oxford
Snooker
Club
Tr. 6
Tr. 7
Rivendell 1
Tr. 8
D
Tr. 9
Yamanouchi
Institute
Tr. 10
Tr. 11
Tr. 18
A
Rivendell 3
Tr. 12
Tr.15
B
Tr. 13
Tr. 16
Chapel
Tr. 14
C
Tr. 17
SANDFORD ROAD
Littlemore
House
Trench location
Line of Service Reserve
Extent of Yamanouchi site
Areas of Geophysical Survey
0
50m
scale 1:1000

Figure 2



scale 1:50

Figure 3



scale 1:20

Figure 4

TRENCH 7

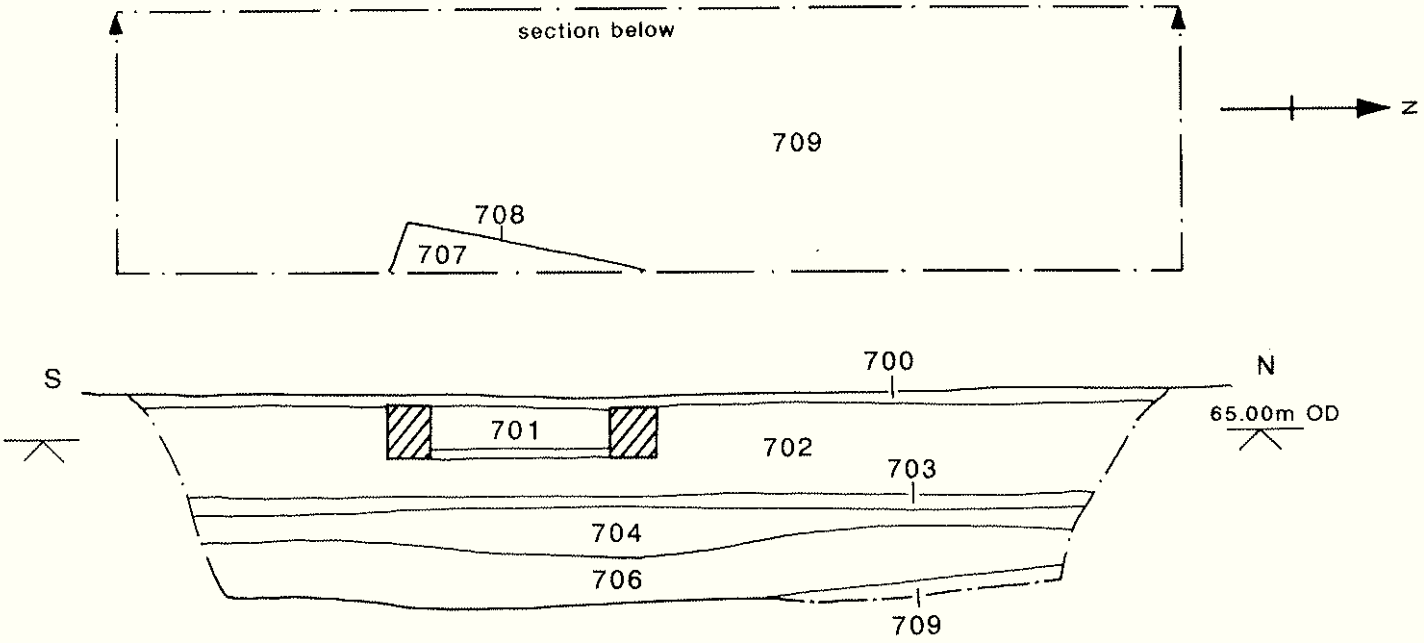


Figure 5 & 6

TRENCH 10

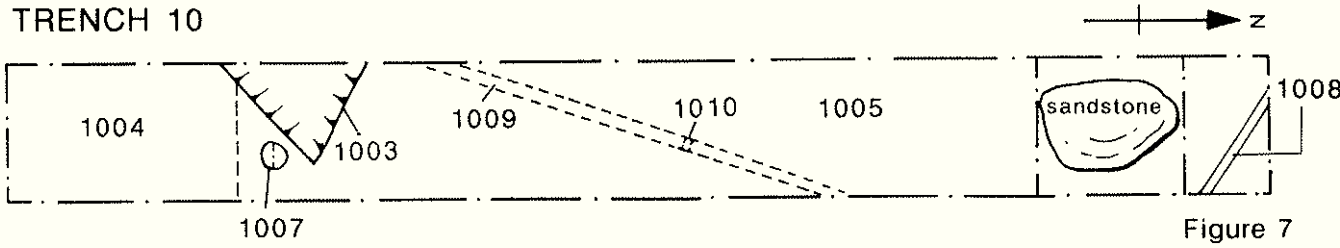


Figure 7

TRENCH 13

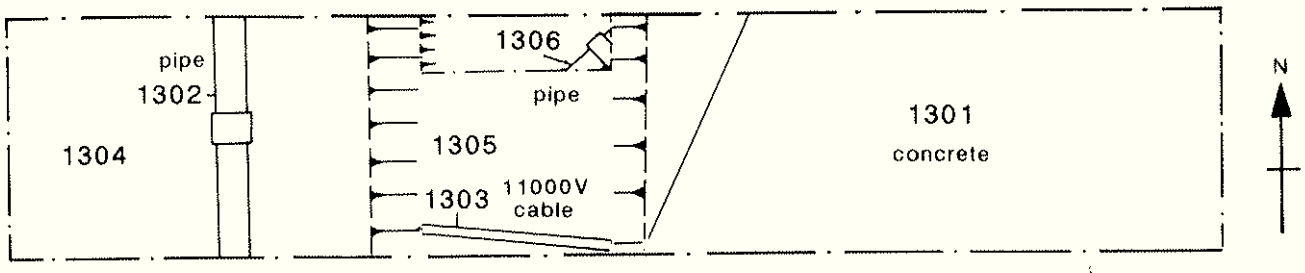


Figure 8

scale 1:50

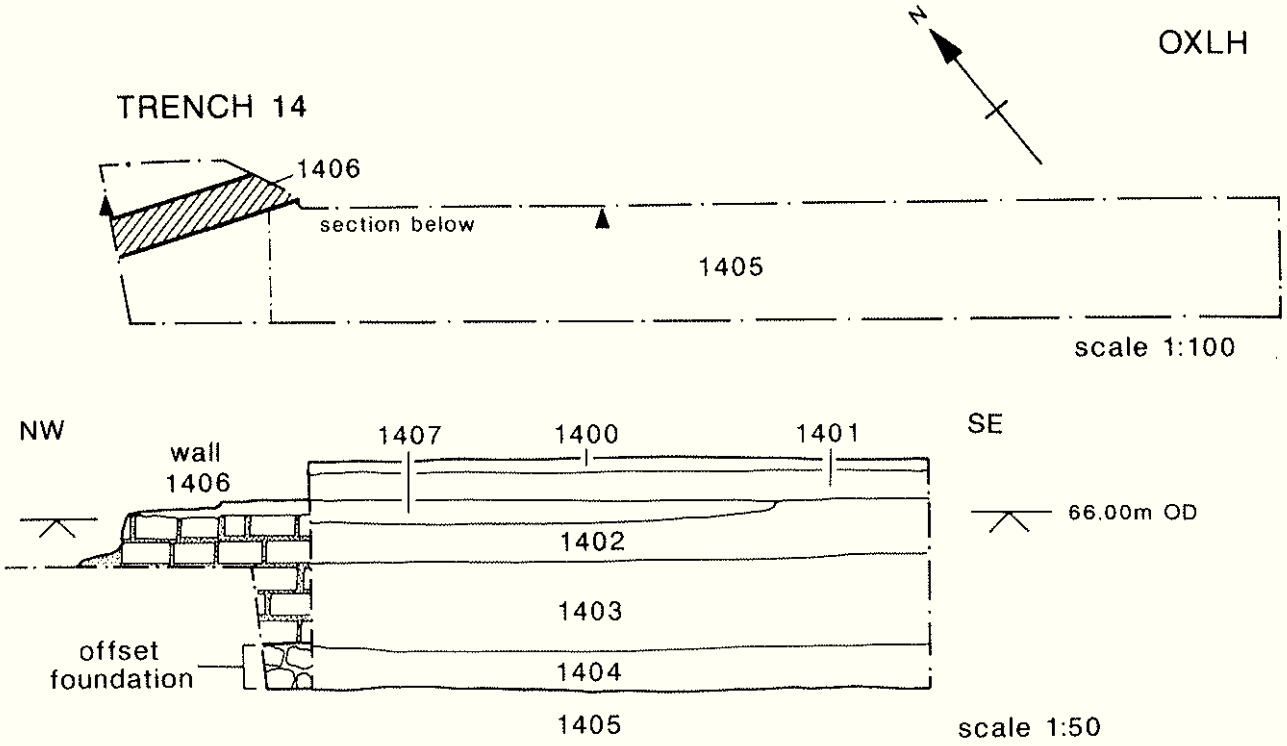


Figure 9 & 10

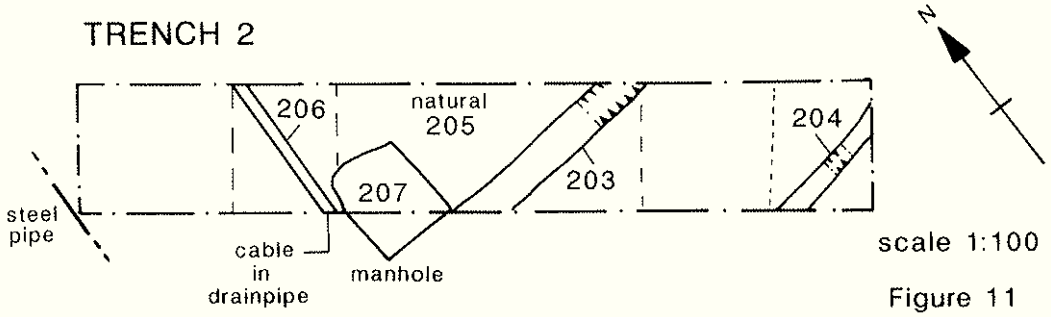


Figure 11

APPENDIX 1: TABLE OF CONTEXT INFORMATION

CTX	TYPE	DEPTH	WIDTH	COMMENTS
100	layer	0.15	-	topsoil/football pitch
101	layer	0.16 m	-	layer of ground make up - modern
102	layer	0.10 m	-	ash/cinders make up layer - modern
103	layer	0.18-0.32 m	-	grey-brown loam, hillwash accumulation
104	layer	0.07 m	-	natural sandy subsoil
105	layer	-	-	natural sand
106	fill	0.12 m	-	fill of tree-hole 107
107	cut	0.12 m	2.0 m	tree-hole, ?prehistoric
108	fill	0.16 m	-	upper fill of ditch 110
109	fill	0.40 m	-	lower fill of ditch 110
110	cut	0.85 m	1.05 m+	?boundary ditch - modern, recently backfilled
111	layer	0.19 m	-	former topsoil
200	layer	0.05 m	-	tarmac
201	layer	0.20 m	-	sand make-up for 200
202	layer	0.45 m	-	post-medieval or earlier ploughsoil
203	cut	0.03 m	0.60 m	plough furrow
204	cut	0.03 m	0.45 m	plough furrow
205	layer	-	-	natural sand
206	services	-	-	N-S service pipe filled with 3 cables
207	structure	0.80 m	0.80 m	brick-built modern manhole
300	layer	0.15 m	-	turf and topsoil
301	layer	0.15 m	-	redeposited sand,ground build up-modern
302	layer	0.29 m	-	dumped sandy layer- garden landscaping
303	layer	0.34 m	-	possible ploughsoil/sandy build up layer
304	layer	-	-	natural sand
305	service	0.10 m	-	E-W service pipe in cut 0.61 m wide
306	service	0.09 m	-	NW-SE ceramic drain pipe encased in concrete
400	layer	0.15 m	-	topsoil

401	layer	0.10 m	-	flower bed soil, sandy loam
402	layer	0.19 m	-	flower bed soil, brown pebbly loam
403	layer	0.56 m	-	flower bed soil, stoney sandy loam
404	layer	0.24 m	-	natural subsoil
405	layer	-	-	natural sand and sandstone
406	service	0.05 m	-	in use iron water pipe aligned E-W
500	layer	0.13 m	-	tarmac
501	layer	0.32 m	-	garden soil
502	layer	0.60 m	-	redeposited clean sand or subsoil
503	layer	0.50 m+	-	natural sand
600	layer	0.08 m	-	tarmac
601	layer	0.15 m	-	gravel bedding for 600
602	layer	0.11 m	-	former turf line
603	layer	0.16 m	-	redeposited/dumped sand
604	layer	0.65 m	-	?hillwash loam or more likely garden soil- undated
605	layer	-	-	natural sand
606-608	services	-	-	modern service pipes x3 removed by machine
700	layer	0.11 m	-	topsoil
701	structure	0.35 m	1.30 m	former corridor, brick-built, modern
702	layer	0.45 m	-	ground make-up of bricks and gravel
703	structure	-	-	brick structure, former canteen building, recently demolished
704	layer	0.62 m	-	703 building construction debris
705	services	-	-	glazed ceramic drainpipes for canteen, aligned N-S
706	layer	0.50 m	-	reddish sand make-up layer
707	fill	-	-	fill of C19-C20 pit
708	cut		3.60 m	Victorian rubbish pit, predates construction of canteen building
709	layer	-	-	natural sand
800	layer	0.07 m	-	topsoil
801	layer	0.22 m	-	former topsoil
802	layer	0.61	-	?ploughsoil, or subsoil, undated

803	layer	-	-	natural sand
900	topsoil	0.14 m	-	turf and topsoil
901	layer	0.20 m	-	former turf line/topsoil
902	layer	0.40 m	-	ploughsoil, possibly medieval
903	layer	0.50 m	-	ploughsoil, possibly medieval
904	layer	-	-	natural sand
905	service	0.11 m	-	service pipe at base of trench
1000	layer	0.30 m	-	modern topsoil
1001	layer	0.20 m	-	former topsoil
1002	fill	0.10 m	-	fill of modern pit
1003	cut	0.10 m	1.50 m	modern pit feature
1004	fill	-	-	upper fill of paleo/stream channel
1005	fill	1.10 m	-	lower fill of paleo/stream channel
1006	fill	0.24 m	-	fill of modern post-hole 1007
1007	cut	0.24 m	0.25 m	modern post-hole assoc. with greenhouses
1008	service	0.10 m	-	modern iron service pipe, E-W
1009	fill	0.22 m	-	fill of land drain 1010
1010	service	0,22 m	0.24 m	modern land drain
1011	layer	0.15 m	-	mix of gravel, ash, concrete relating to footings of dismantled greenhouses
1012	cut	15 m+	1.80 m+	?prehistoric stream course
1100	layer	0.10 m	-	topsoil
1101	layer	0.30 m	-	landscaping soil or former topsoil
1102	layer	-	-	natural sand
1103	fill	0.58 m	-	fill of tree hole 1104
1104	cut	0.58 m	2.10 m	tree hole
1105	fill	0.70 m	-	fill of modern feature 1106
1106	cut	0.70 m	0.55 m	linear cut, function unclear
1200	layer	0.14 m	-	topsoil
1201	layer	0.45 m	-	rubble, modern land raising
1202	layer	0.30 m	-	former topsoil
1203	layer	0.31 m	-	sandy ploughsoil, ?medieval
1204	layer	0.34 m	-	natural subsoil

1205	layer	-	-	natural sand
1206	layer	0.20 m	-	sandy layer between 1203 and 1204
1300	layer	0.12 m	-	topsoil
1301	layer	0.10 m	1.55 m+	large concrete flagstone, possibly recent road surface
1302.	service	-	-	SE-NW ceramic drainpipe
1303	service	-	-	E-W 11,000 V power cable
1304	layer	0.50 m	-	made ground, C20 debris
1305	layer	0.50 m	-	clay sand, perhaps a ploughsoil
1306	service	0.15 m	-	NE-SW iron pipe
1307	layer	-	-	natural sandstone
1400	layer	0.23 m	-	topsoil
1401	layer	0.13 m	-	modern dumped deposit, bricks, gravel etc.
1402	layer	0.38 m	-	former topsoil
1403	layer	0.34 m	-	ploughsoil, ?medieval
1404	layer	0.20 m	-	natural subsoil
1405	layer	-	-	natural sand
1406	structure	0.75 m	0.60 m	Victorian limestone wall, probably former hospital boundary wall
1407	layer	0.16 m	-	demolition debris from wall 1406
1500	layer	0.18-0.32 m	-	topsoil
1501	layer	0.30 m	-	construction debris formed at time of chapel construction
1502	layer	0.41 m	-	?ploughsoil incorporating building debris
1503	layer	-	-	natural sand
1600	layer	0.10 m	-	topsoil
1601	layer	0.40 m	-	garden landscaping layer
1602	layer	0.35 m	-	natural subsoil
1603	layer	-	-	natural sand
1604	cut	0.41 m	1.40 m	post-medieval pit
1605	fill	0.41 m	-	only fill of pit 1604
1700	layer	0.10 m	-	topsoil
1701	layer	0.40 m	-	garden landscaping layer
1702	fill	0.18 m	-	upper fill of 1704

1703	fill	0.40 m	-	lower fill of 1704
1704	cut	0.70 m	4.0 m	modern pit/sand quarry
1705	layer	-	-	natural sand
1800	layer	0.40 m	-	topsoil
1801	layer	0.45 m	-	allotment type soil, frequent brick and tile, glass etc.
1802	fill	0.45 m	-	fill of modern pit 1803
1803	cut	0.45 m	1.40 m	modern pit feature, ?soakaway
1804	layer	0.50 m	-	natural sandy clay
1805	layer	-	-	natural sandy clay

APPENDIX 2

LITTLEMORE HOSPITAL, OXFORD

Report on Archaeogeophysical Survey

1995

A.D.H. Bartlett

Bartlett-Clark Consultancy
Specialists in Archaeogeophysics

Oxford Centre for Innovation
Mill Street
Oxford, OX2 0JX

01865 200864

Littlemore Hospital, Oxford

Report on Archaeogeophysical Survey, 1995

Introduction

This survey was carried out at the request of the Oxford Archaeological Unit as part of an archaeological evaluation being undertaken in the hospital grounds. Four trial areas occupying relatively open ground within the hospital complex were selected for investigation, and surveyed in detail by magnetometer.

The areas were not located on the basis of any specific prior archaeological evidence or findings, but there is a possibility, as is the case elsewhere to the south of Oxford, of detecting Roman kilns from the extensive local pottery industry. One of the areas may be subject to disturbance when a proposed service trench is constructed across the site, but the others were surveyed to provide evidence of the prevailing ground conditions and whether relatively modern disturbances are likely to limit the archaeological potential of the site. The fieldwork for the survey was carried out on 8-9 August 1995 at the same time as a programme of trial trenching undertaken by OAU.

Survey

The location of the survey areas (A-D) is indicated by the half tone plots of the survey findings, which are shown on figure 1 on a reduced scale copy of the Civil Engineers' site plan supplied to us by OAU. There are slight variations from the areas as originally specified to avoid obstructions. Site A occupies an open lawn, and so was extended to cover more of this readily surveyable area.

The survey results are displayed as graphical plots representing readings collected at 25cm intervals along lines 1m apart in figure 2. These are based on the same data as the half tone plots in figure 1. Magnetic susceptibility readings were also collected at 5m intervals from each of the areas surveyed, but these showed only apparently random variations as would be expected in the presence of superficial or modern disturbances, and are not reproduced here.

Results

Site A

Much of this area is relatively quiet except for the pipes as marked on figure 2. There is an area of slightly increased background noise, as indicated by cross hatching on the plot, but this does not contain any distinct magnetic anomalies which would suggest the presence of kilns or other archaeological features.

Site B

This area again contains pipes, although part of it is relatively undisturbed. The magnetic anomalies circled in the south east corner of the survey may relate to a pipe or other modern feature, but they are less strong than the anomalies seen elsewhere in the plot, and so this possibility cannot be confirmed from the survey evidence alone.

Site C

This overgrown area appears to be magnetically quiet except for disturbances associated with the edge of the car park and lamp post near the south east corner of the survey.

Site D

There is interference from the wire fence along the southern edge of the survey, and from a pipe, but the background appears to be magnetically quiet. A relatively weak linear anomaly is marked on figure 2 by a broken line. This could perhaps be a trench containing a non-ferrous pipe.

Conclusions

The survey may have detected a few subsurface features in addition to the expected iron pipes and other modern disturbances, but the most significant finding is perhaps the extent of magnetically quiet ground, as seen particularly in areas A, C and D. This suggests that ground conditions in the more open parts of the site may be sufficiently undisturbed for archaeological preservation to be a possibility. The survey provided little direct evidence for archaeologically significant findings in the trial areas surveyed, although anomalies of uncertain significance were seen in area B, and a trench or other linear feature was detected in area D.

Report by:

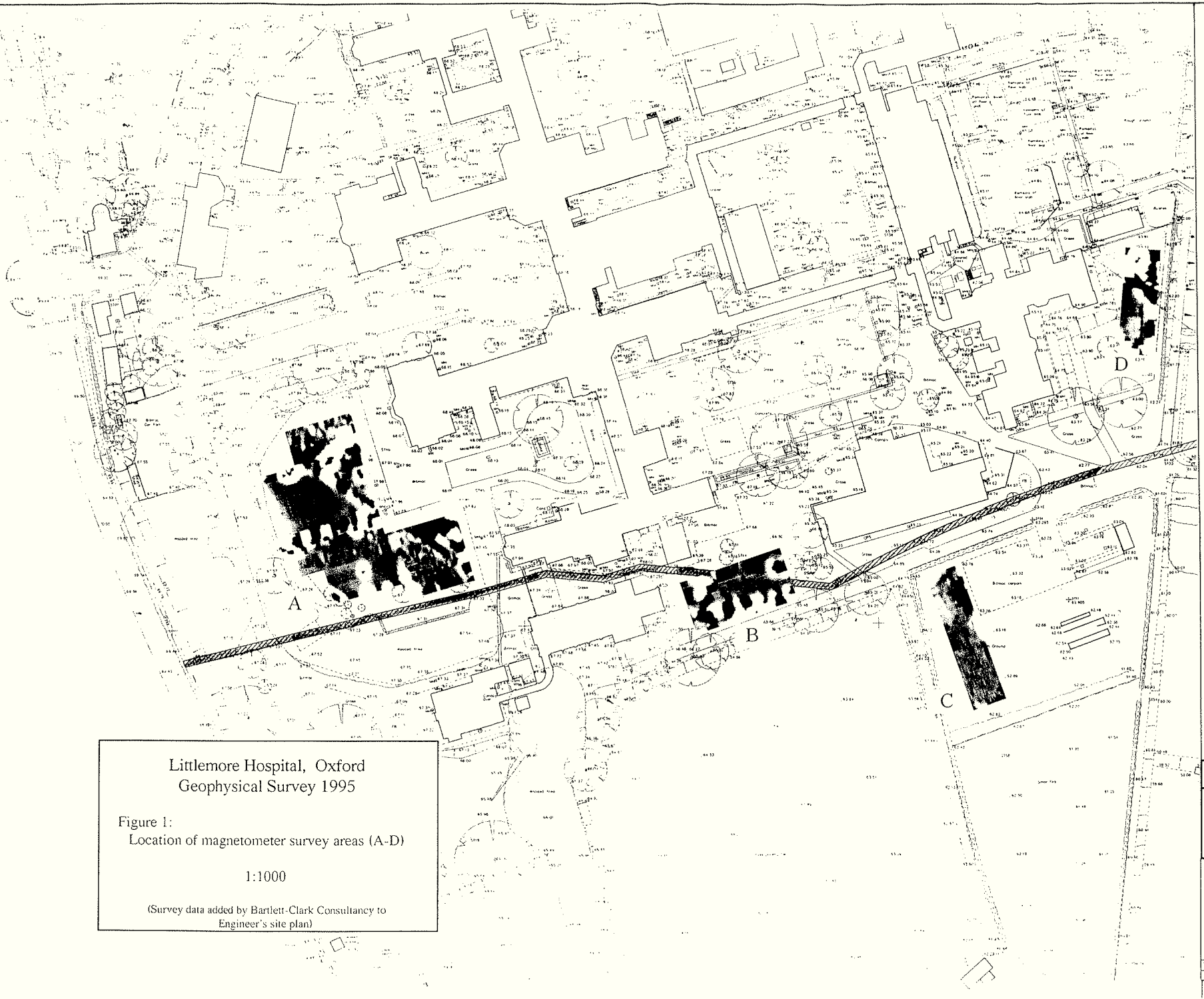
A.D.H. Bartlett BSc MPhil

Bartlett - Clark Consultancy
Oxford Centre for Innovation
Mill Street
Oxford
OX2 0JX

01865 200864

25th August 1995

C. Paton BSc assisted with this survey.



+5 nT

-5 nT

N

Littlemore Hospital, Oxford
Geophysical Survey 1995

Figure 1:
Location of magnetometer survey areas (A-D)

1:1000

(Survey data added by Bartlett-Clark Consultancy to Engineer's site plan)

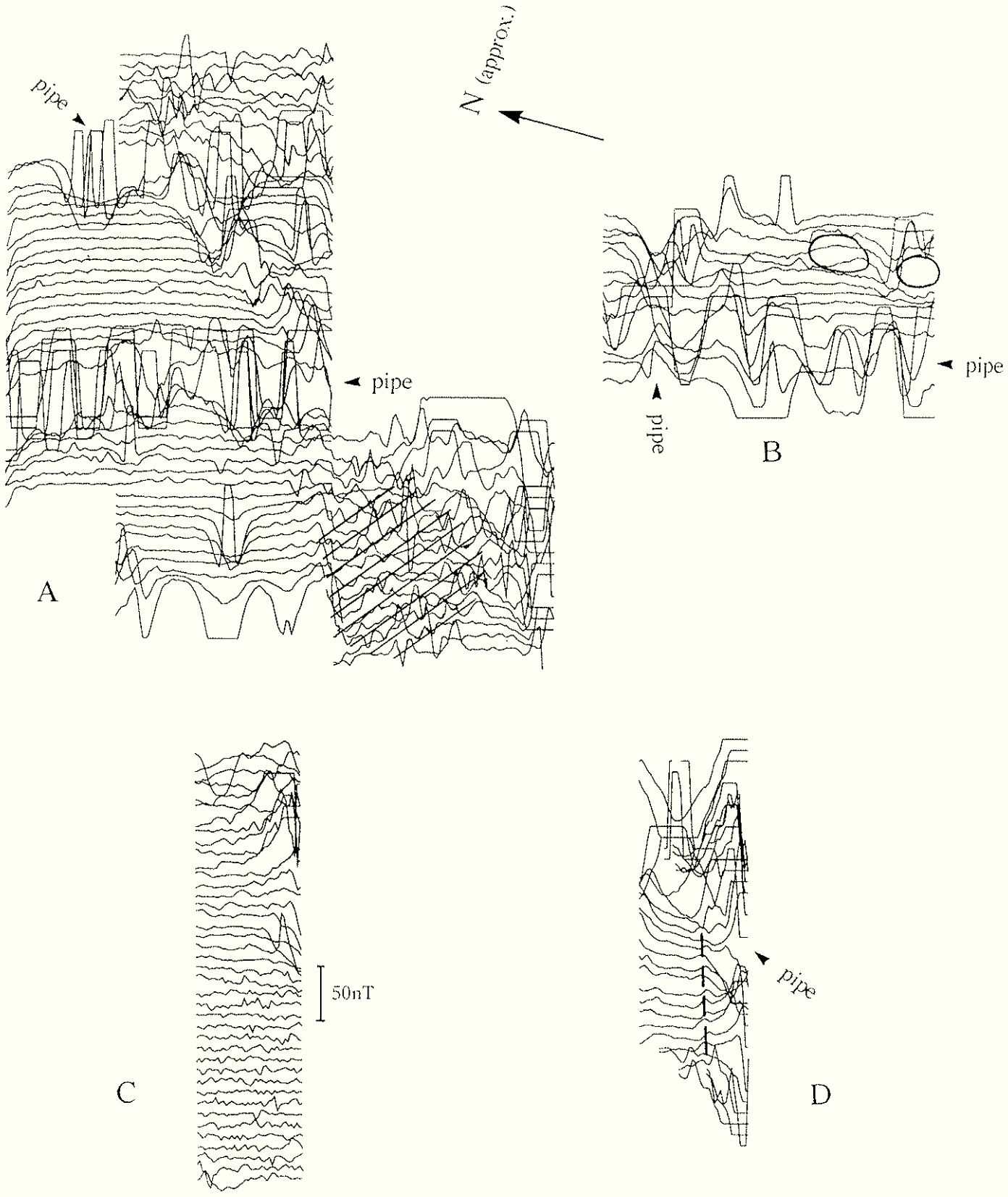
PRELIMINARY

LITTLEMORE PARK

Proposed Service Reserve

GLANVILLE & ASSOCIATES

civil and structural engineering consultants



Littlemore Hospital: Geophysical Survey 1995

Figure 2: Magnetometer survey 1:500

(selected magnetic anomalies outlined)

Bartlett - Clark Consultancy
Specialists in Archaeogeophysics

Oxford Centre for Innovation
Mill Street

Oxford OX2 0BB 0865 200864

OXFORD ARCHAEOLOGICAL UNIT

46 Hythe Bridge Street, Oxford, OX1 2EP

Head Office Tel: 01865 243888 Fax: 01865 793496

Post-Excavation Tel: 01865 204642 Fax: 01865 204637

Director: David Miles B.A., F.S.A., M.I.F.A.

The Oxford Archaeological Unit Limited. Registered Charity Number: 285627

Private Limited Company Number: 1618597 Registered Office: 46 Hythe Bridge Street