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BANBURY TOWN CENTRE REDEVELOPMENT SCHEME

An Archaeological Watching Brief 1995

by
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1.0: SUMMARY

This report describes the results of an archaeological watching brief of geo-technical test-pits and boreholes carried out in advance of a proposed town centre redevelopment scheme at Banbury, Oxfordshire (hereinafter referred to as the study area). A total of 27 boreholes, 35 test-pits and 7 test-trenches was observed and recorded within the study area.

2.0: INTRODUCTION

This report outlines the results of an archaeological watching brief in the town centre of Banbury, Oxfordshire (Fig 1). The work was undertaken during late October/early November 1995 by Birmingham University Field Archaeology Unit, on behalf of Raglan Property Holdings Limited. Two further days of observation and recording were undertaken in December during the examination of service ducts.

In accordance with the guide-lines laid down in Planning Policy Guidance Note 16 (November 1990), a recommendation for archaeological works was made by the County Archaeology Office of Oxfordshire County Council in advance of proposed geo-technical works. The specifications for an archaeological response to these works were laid out in a letter dated 29th May 1995 to Lyons, Sleeman and Hoare and approved by Paul Smith of the County Archaeology Office of Oxfordshire County Council.

The purpose of the evaluation was to observe and record the location, extent, date, character and significance of deposits which may potentially be affected by the proposed development. This information could then be integrated with previous archaeological work and with the results of a desk based assessment (*'Banbury Town Centre Redevelopment, An Archaeological Assessment; Ferris, Leach and Litherland 1991'*) to provide the basis for targeted geophysical survey and evaluation strategies.

Appendices I, II and III of this report provide a detailed description of the borehole, test-pit and test-trench results. A summary is provided in Section 5.

3.0: METHODOLOGY

All ground disturbance was observed by archaeological staff in order to identify any deposits of archaeological significance. In accordance with health and safety regulations, test-pits were initially machined or dug by hand to a depth of 1.2m, enabling a record to be made of the sections from within the test-pit. Test-pits were then further machined to a total depth of 3.0m. Systematic samples were taken of any deposits of possible archaeological or environmental interest. Samples of deposits below 1.2m were removed from the machine bucket during the excavation of the test-pit. All samples have been retained at Birmingham University Field Archaeology Unit, with one sample only being examined macroscopically at this stage.

The location of test-pits numbers 1, 2, 8, 9, 14, 15, 22, 24, 25 and 33, on the car-park or areas of hard standing, required that spoil from these test-pits be removed from site, and the test-pits reinstated with hard-core. The lack of opportunity to examine spoil once it was removed from the test-pits is reflected in the absence of finds, and thus of direct dating evidence for many of the 'events' recorded in the various strata examined.

Boreholes were observed as far as the level of the natural bedrock or sub-soils, which usually constituted the lower lias clays or limestone. Whilst providing an accurate profile of the underlying geology, material removed from archaeological contexts using a borehole is difficult to identify and date. Thus, unless diagnostic in some respect, deposits can only be broadly classified as modern, man made, alluvial or 'natural'. The way in which the borcholes were sunk may have led to possible cross-contamination of contexts in some instances.

Recording was undertaken by means of pre-printed pro-forma recording sheets supplemented by photographs, which are all held in the archive.

4.0: THE STUDY AREA AND ITS SETTING

The study area lies in the centre of Banbury, approximately 32 kilometres to the northeast of Oxford, slightly to the southwest of the River Cherwell. The underlying soils and geology are alluvium overlying cretaceous, lower lias clay and limestone.

A more complete background analysis and desk top analysis of the study area is already available (*'Banbury Town Centre Redevelopment, An Archaeological Assessment; Ferris, Leach and Litherland 1991'*). This has allowed some contextualisation of the results from these boreholes and test-pits to take place, although a greater understanding of the strata from these may not be fully achieved until further evaluation and excavation work has been undertaken.

5.0: SUMMARY OF WATCHING BRIEF RESULTS

For the purposes of this report, the study area has been divided into seven distinct zones. These Zones have been created on the basis of similarities in location, geology and archaeological potential. On the accompanying plan (Fig. 1), historical features have been superimposed over modern features using available documentary evidence. The actual location and presence of these features is, therefore, in no way absolutely certain.

Zone 1. To the northeast of the River Cherwell.

Boreholes 15, 16 and 21.
Test-pits 3, 7, 12, 13 and 26.

Ground level to 0.2m. Turf and topsoil.
0.2m to 2.1m. Contaminated, modern, domestic land-fill, generally to a depth of 2.1m.
2.1m to 4.0m. Layers of blue-grey organic, alluvial, sandy clays.
4.0m to 5.5m. Blue-grey silt and gravel, probably further alluvial deposits.
At 5.5m. Natural, grey lower lias clay.

No evidence of archaeological activity was encountered in this area, although samples recovered from these deposits may have an environmental interest.

Zone 2. Located between the River Cherwell and the Oxford Canal.

Boreholes 9, 10, 11, 12, 13, 14, 20, 26.
Test-pits 4, 5, 6, 10, 17, 28, 29, 30, 31.

Ground level to 0.2m. Turf and topsoil.
0.2m to 1.0m. Brown clay with brick rubble, modern levelling material.
1.0m to 2.8m. A number of alluvial clays of differing consistencies.
2.8m to 4.0m. Brown clay with gravels.

No evidence of immediately identifiable archaeological activity was encountered in this area, although samples recovered from these deposits may be of environmental value. Similar to Zone 1, Zone 2 may be within an area which, up until recently, was liable to flooding. Alternatively it may have been an area of marsh, which, as is suggested by deposits in Test-pit 28, was characterised by the presence of palaeo-channels. All of the test-pits and boreholes in this area suggested that a substantial drainage and levelling up of the area had recently been undertaken. It also seems likely that drainage in this area was improved with the construction of the Oxford Canal. The level of the natural grey, lower lias clay varied between 2.9 and 4.7m.

Zone 3. Areas to the north of the proposed line of the outer moat, and to the south of the Oxford Canal.

Boreholes 4, 5, 7.
Test-pits 8, 9, 11.

Ground level to 0.6m. Tarmac and hard-core.
0.6m to 3.0m. Brown sandy clays with small gravel and pea grit. Some alluvial clays of differing consistencies were also encountered.
At 3.0m. Natural grey, lower lias clay.

No evidence of archaeological activity was encountered in Zone 3. The presence of alluvial clays tends to suggest the area may have been unsuitable for settlement. Similar to Zone 2, from which it is topographically divided by the 'man made' Oxford Canal.

Zone 4. Boreholes and test-pits within the proposed line of the outer moat of Banbury Castle.

Boreholes 1, 3, 18, 23.
Test-pits 1, 2, 16, 19, 21, 34, 35.
Test-trenches 4A, 7A.

None of the boreholes and only Test-pits 1, 34 and 35 were actually located across the middle of the proposed line of the outer moat, with the remainder being situated on the periphery.

Along the street frontage with Castle Street, Borehole 1 and Test-pit 1 showed evidence of recent disturbance from former in-filled cellars and buildings to a depth of nearly 2.0m. Undated deposits resulting from human activity were visible below this disturbance, to a depth of approximately 3.3m outside the moat, and below 3m

over the projected line of the outer moat, consisting of moat 'in-fill' material. Deposits below these levels consisted of alluvial gravels.

Test-pit 34 showed little evidence of human activity, and no recognisable traces of the outer moat. It may be that the course of the outer moat is slightly different to the proposed line, or it is equally possible that the depth of Test-pit 34 was insufficient to reach undisturbed deposits filling the moat.

Borehole 18 suggests organic, alluvial deposits, possibly associated with the outer moat, are present to a depth of nearly 6m below the current ground level.

Test-pits 16, 19 and 23, along the southern edge of the Oxford Canal, tend to suggest modern disturbance in this area, down to the level of possible alluvial clays at a depth of approximately 2.4m. Test-pit 35, however, was cut through very organic clays and silts from a depth of 1.0m. One sample of this deposit (TP35/4) was examined macroscopically. Without dating evidence no further environmental work was undertaken, although, a preliminary examination suggests a high potential for the survival of environmental remains here. These may be remains from the former outer moat, or it may be possible that these deposits relate to later activity associated with the canal. The First Edition Ordnance Survey map of 1880 indicates a spur was cut from the Oxford Canal approximately 50m to the north of Tooleys Boat Yard. Aligned due south for a distance of 65m, this spur appears to have been cut between the inner and the outer moat. It may be possible that earthworks from Banbury Castle were still evident when the Canal was dug. It would therefore seem a possibility that if part of the inner moat still remained as a formidable earthwork it could have been utilised, rather than excavating a completely new channel. The importance of the relationship between the location of the eastern side of the inner moat and the canal spur has implications for the sub-surface survival of the castle's outer defences along the eastern side.

Borehole 23 and Test-pit 21 revealed modern deposits to a depth of nearly 2m, with no evidence of the outer moat. Since the natural sub-soil was revealed in Borehole 23 at a depth of 3.6m, either all traces of the outer moat have been disturbed by later activity, or, as seems more likely, the original course of the outer moat lay to one side of Test-pit 21.

Canal features will have an archaeological interest in their own right, particularly in association with Tooleys Boat Yard, a Scheduled Ancient Monument (Plate 1).

Zone 5 Boreholes and test-pits inside the proposed line of the outer moat and outside, and including, the proposed line of the inner moat of Banbury castle.

Boreholes 2, 6, 19, and 22
Test-pits 14, 15, 18, and 20.
Test-trench 6A.

Boreholes 2 and 6 were located above the proposed area of the outer defences. The remainder were located over areas of the inner moat. Borehole 2 suggests a build-up of man-made layers of up to 2m in depth in the western area of the outer defences. Deposits BH2/2 to BH2/5 (to a depth of nearly 2.0m below the current ground level) are consistent in character with deposits encountered by Fasham from phases 4 to 10 (Fasham 1973, 79-88). The layer of sand and gravel spread throughout the outer bailey, identified as phase 3 by Fasham, may be represented by BH2/6. This, however, may suggest the gravel from phase 3 is at a greater depth than equivalent layers in the area of the inner bailey.

The presence of very organic material to a depth of 3.0m in Borehole 6 may imply that the line of the proposed moat is in fact slightly further north than has initially been suggested. This would concur with evidence from Test-pit 15, where a change in the strata matrix was visible in the extreme southern end of the test-pit, possibly representing the inside of the cut for the inner moat. Test-pit 15 (Plate 2) revealed a dense concentration of ironstone blocks from 0.5m below ground level to 2.4m. Some of this stone was dressed, although the majority of the stone was irregular, with no diagnostic blocks remaining. This local ironstone is characteristic of the type of building material used in Banbury from the medieval period through to the end of the 18th Century. Red brick as a building material became popular with the construction of the canals, whereby bricks could be more easily transported.

Fasham's excavations from 1972 to 1974 revealed that a number of the walls associated with Banbury Castle were constructed by using dressed stone on the exterior of the wall, and by infilling the cavity with rubble. A building was identified in phase 5 (late 15th-early 16th Century) as being constructed from reused ashlar blocks with a rubble core, probably of drystone construction (Fasham 1973, 81, building V). At the end of the civil war in 1648 the townspeople demolished the castle and used the stone to rebuild properties damaged during the hostilities. It seems likely that the best stone would have been removed for this purpose, whilst the rubble from the core of the walls would have been thrown aside, in this instance possibly into the upper fills of the moat.

Borehole 19 suggested the presence of man-made deposits to a depth of 5.5m below ground level, some particularly rich in organic material. These possibly relate to the former inner moat. Test-pit 18, located in the same area, was abandoned due to the presence of services. Test-pit 20, however, demonstrated the presence of modern deposits to a depth of 2.4m, below which are undated layers, possibly sediments from the inner moat.

Borehole 22 suggested the presence of man-made deposits, of undetermined date, to a depth of at least 4.3m, with possible alluvium or moat sediments to a depth of 5.5m.

Test-pit 14 tends to suggest that the recent building disturbance visible in Test-pit 1, further to the west, does not continue along the street frontage into the area of the inner bailey. The location of Test-pit 14 would suggest it was cut into the upper fills of the inner moat. However, no deposits of possible sedimentary ditch fills were identified. It may be possible that the test-pit was not deep enough to reach these levels, and deposits encountered may relate to the demolition of buildings associated with the later phases of Banbury Castle.

Zone 6 Boreholes and test-pits within the proposed area of the inner bailey of Banbury Castle.

Borehole 8.
Test-pits 32 and 37.

Test-pits 32 and 37 show the presence of modern disturbance to a depth of approximately 2.0m in an area to the south of Castle Street. Layers of brown silt, clay and gravel below this may be equivalent to the make-up layers for the inner bailey identified by Fasham (Fasham 1972, 79-88). Fasham suggested that material, mainly sand and gravel (with tip layers of clay), excavated from the moats, was spread throughout both the inner and outer baileys. Deposits encountered in Test-pit 34 (TP34/3) appear consistent with the sand and gravel described by Fasham from phase 2 onwards. The deposit, however, measures at

least 2m in depth compared to the deposits identified by Fasham being approximately 1m in total depth.

Borehole 8, the only borehole or test-pit within the area of the inner bailey north of Castle Street, showed the potential for the presence of archaeology down to a depth of at least 3.0m below the current ground level. Deposit BH8/4 may possibly relate to the gravel deposit identified in phase 3 of Fasham's excavations (Fasham 1972, 79). This seems possible in view of the contrasting depths and the absence of mortar below 1.6m. Although evident from phase 2 onwards (12th Century), mortar is probably more indicative of later phases of building.

Zone 7 The area between the Oxford Canal and Bridge Street. No test-pits were excavated between Bridge Street and Mill Lane, an area of high archaeological potential within the possible medieval settlement of Banbury.

Boreholes 17, 24 and 25.
Test-pits 22, 24, 25, 27 and 33.
Test-trenches 1C, 2A, 2B and 3C.

Boreholes 17 and 24 and Test-pits 24 and 25, located within the bus depot, showed the presence of modern material to a depth varying between 0.6m and 1.0m. The remaining deposits below this appeared to consist of layers of brown clay with sand and gravel, overlying the natural limestone at a fairly shallow depth of approximately 3.0m. The lack of finds in these test-pits may indicate the possibility that the area of the bus depot was developed largely after the canal was built.

Deposits in Test-pit 22, however, showed a considerable difference, being layers of silty grey clays, possibly the fill of a channel or an isolated deposit of sediments. This may relate to activity during the construction of the Oxford Canal. Alternatively it may represent the line of a former culvert running from Cuttle Mill.

To the south, Borehole 25 and Test-pit 27 showed the presence of deposits having possible archaeological potential between 0.45m and 1.1m, including a wall aligned north-south and constructed from the local ironstone in Test-pit 27. Here again the lower lias limestone was evident relatively close to the ground surface at a depth between 2.3 and 3.0m. This suggests this area is on the 'river cliff' and therefore is less liable to flooding. This potentially marks the boundary of settlement along the northeastern edge of medieval Banbury.

Test-pit 26, within the extent of the medieval settlement, was not excavated. Test-pit 33, at the western end of Bridge Street, was abandoned at a depth of 1.9m due to the presence of modern services.

Deposits in Test-trench 2A (TT2A/4) may potentially be of archaeological interest, although, due to lack of dating evidence from this trench the importance of these deposits is difficult to assess

6.0: DISCUSSION

The area of Zone 1, to the northeast of the River Cherwell, showed very little potential for the survival of archaeological remains. Layers of alluvium and river deposits were shown to be sealed by over two metres of modern domestic land fill. Samples of these river deposits may, however, have an interest for environmental archaeology.

Similarly in Zone 2 deposits would appear to be consistent with a recent levelling up of the area by at least one metre. Evidence from the test-pits and boreholes would suggest that this area was formerly low-lying, marshy ground liable to flooding. This may have been characterised by the presence of palaeo-channels. No significant archaeological deposits were encountered, although ecofactual analysis of the alluvial layers may facilitate a greater understanding of former local environments.

Deposits encountered in Zone 3 again showed little of archaeological significance. This area is topographically divided from Zone 2 by the Oxford Canal, a man-made feature. This tends to suggest areas to the north and northeast of the castle were not favourable to settlement, but liable to flooding. During January and February 1990 archaeological work to the north of Bridge Street, undertaken in advance of the Banbury inner relief road, identified a river cliff which appeared to define the extent of the medieval settlement of Banbury. An area to the north and northeast of the former Banbury castle (Zones 1, 2 and 3) would appear to have been beyond the river cliff and outside the settlement area.

Evidence from the test-pits and boreholes within Zone 4 show most of the upper fills of the outer moat to be modern. The finding of two metres of modern deposits in areas over the outer moat concurs with antiquarian evidence that the moat was still evident as an earthwork until the early-19th Century. For a long while after its demolition it appears that the area of the castle remained unused. This may have facilitated the favourable survival of deposits in the areas of the inner and outer bailey (Zones 5 and 6), as shown by excavations undertaken in 1972 (Fasham 1973, 79-88). The outer moat, however, is recorded as having been re-cut during the civil war (Rodwell 1976, 95). 'In situ' medieval deposits in Zone 4 may therefore be limited. Borehole 23 and Test-pit 21 failed to locate any deposits that might be linked with the western side of the outer moat. Although not located over the proposed middle of the moat, it seems odd not to find any evidence of such a large feature here. This may indicate that the real location of the moat lies to one side of the presently proposed line.

None of the test-pits in Zone 5 was located within the area of the 13th/14th Century defences (the outer bailey). Excavations in advance of the Castle Shopping Centre, however, revealed evidence of the 13th/14th Century defences, despite intrusive 19th Century development (Rodwell 1976, 91). The exact nature and date of deposits within this area are difficult to assess from material recovered from boreholes. What this evidence does suggest, however, is the survival of man-made deposits to a depth of almost two metres in an area with high archaeological potential. Further evaluation of this area may determine the extent and character of the deposits recorded in the borehole survey.

The area around Test-pit 20 in Zone 5 and Test-pit 32 in Zone 6, both in an area to the south of Castle Street and to the north of the Castle Shopping Centre, show evidence of recent deposits or disturbance to a depth of over two metres. This may have resulted from the recent construction of the Castle Shopping Centre and suggests a low potential for the survival of archaeological deposits here. Boreholes 19 and 6, however, showed a good survival of inner moat deposits to the north of Castle Street. These boreholes may also imply that the northern extent of the inner moat lies fractionally to the north of where it is currently indicated on plan (Fig. 3). The relationship between a canal spur denoted on the first edition Ordnance Survey map and the inner moat is difficult to determine. The canal spur may have been dug independently or it may have utilised the pre-existing moat. Further investigation in this area may determine this relationship.

Test-pits 32 and 37 to the south of Castle Street (Zone 6) indicated a poor survival of archaeological deposits in this area. Borehole 8, however, suggests a favourable

survival of remains over the remainder of Zone 6 to the north of Castle Street. Fasham's excavations in 1972 show the potential for deeply stratified deposits to be present in this area.

Examination of the boreholes and test-pits within the bus depot suggest that this area was largely developed after the construction of the canal. It may also be possible that this area was beyond the river cliff (identified in 1991) during the medieval period (Chambers 1991). Further investigation may verify this. A difference in the ground level between the bus depot and Mill Lane to the south appears to be the result of a levelling up of the area, although no evidence for the date of this could be determined within this brief. It seems likely that deposits in Test-pit 22 relate to the culvert between Cuttle Mill and the River Cherwell, rather than being an isolated deposit.

Only two test-pits were located to the south of Mill Lane. All deposits in Test-pit 33 were recent, evidence of the density of services in the area of Bridge Street. Test-pit 27, however, showed a number of features and layers of high archaeological potential, the nature of which are difficult to characterise within the confines of this brief. Immediately to the east of Test-pit 27, excavations in 1991 (Chambers 1991) highlighted well stratified medieval remains located on the 'river cliff'.

The medieval town grew rapidly to the south and southwest of the castle, with an extension towards the bridge by 1200 (Rodwell 1975). The excavations at Banbury castle in 1973-4 (Rodwell 1976, 91) showed that the damage to the archaeology caused 19th Century development was not substantial where houses had been uncellared and built, in places, on top of earlier stone walls. Although no test-pits were located to examine this area between Mill Lane and Bridge Street, any deposits may potentially be earlier and more extensive than the 13th century remains identified by the excavations of 1991.

7.0: ACKNOWLEDGMENTS

This project was commissioned by Banbury Shopping Centre Limited on behalf of Raglan Properties plc. The fieldwork was monitored for Birmingham University Field Archaeology Unit by Iain Ferris and for Oxfordshire County Council by Paul Smith. The watching brief was supervised by Richard Thorburn Cuttler with the assistance of Bob Burrows, Martin Campbell, Derek Moscrop and Ed Newton. The environmental assessment was made by David Smith, with an analysis of the finds by Lynne Bevan. The report was edited by Iain Ferris and the drawings prepared by Jon Sterenberg.

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APPENDIX 1

BOREHOLES 1-27

Borehole 1 Located in the carpark to the north of Castle Street slightly to the west of the proposed line of the outer moat.

BH1/1 Ground level to 0.5m. Tarmac and hard-core.
BH1/2 0.5m to 0.8m. A fairly stiff brown clay with fragments of crushed rock.
BH1/3 0.8m to 0.9m. A dark black/grey clay with a matrix mottled with brown clay. This layer contained fragments of red brick, clay pipe, charcoal flecks and wood.
BH1/4 0.9m to 1.5m. A stiff brown clay with abundant flecks of charcoal, white mortar , fragments of red brick and natural rounded pebbles.
BH1/5 1.5m to 1.9m. A slightly lighter brown clay than BH1/4 with abundant charcoal flecks and occasional flecks of white mortar.
BH1/6 1.9m to 2.3m. A mid-light brown clay with occasional bone fragments.
BH1/7 2.3m to 3.3m. A stiff brown gleyed clay with carbonised material and burnt clay.
BH1/8 3.0m to 3.8m. Orange-brown gleyed sandy clay with occasional pea shingle.
BH1/9 3.8m to 4.2m. A soft, layered blue-grey clay containing organic material which may be the result of root action.
BH1/10 At 4.2m. Stiff grey lower lias 'natural' clay.

Borehole 2 Located in the carpark to the north of Castle Street, to the east of the proposed line of the outer moat, and to the west of the proposed line of the inner moat.

BH2/1 Ground level to 0.5m. Tarmac and hard-core make-up layers for the existing carpark.
BH2/2 0.5m to 0.7m. A mottled brown clay with fragments of red brick, white mortar, crushed yellow ironstone and charcoal.
BH2/3 0.7m to 1.1m. A mid-brown silty clay with charcoal and mortar flecks, and fragments of bone.
BH2/4 1.1m to 1.7m. Dark brown mixed clay silt, with charcoal, brick fragments and flecks of white mortar.
BH2/5 1.7m to 1.9m. A friable brown clay-silt with abundant fragments of white mortar.
BH2/6 1.9m to 3.9m. A stiff brown mottled clay.
BH2/7 3.9m to 4.2m. A brown and grey sandy clay, possibly a waterlogged deposit.
BH2/8 4.2m to 4.7m. A soft brown sandy clay with gravel.
BH2/9 4.7m to 5.1m. A firm grey clay.
BH2/10 5.1m to 7.9m. A Stiff grey, fossiliferous, lower lias clay.

Borehole 3 Located in the carpark to the north of Castle Street, within the northwest corner of the proposed line of the outer moat.

BH3/1 From ground level to 0.6m. Tarmac and hard-core.
BH3/2 0.6m to 1.1m. A stiff brown sandy clay with occasional sub-angular flint.
BH3/3 1.1m to 2.1m. A firm brown sandy clay with lenses of grey clay, sub-angular ironstone and pebbles.
BH3/4 2.1m to 2.8m. A soft, mixed brown and grey sandy clay.

BH3/5 2.8m to 3.0m. A firm, mottled brown and grey clay with occasional flint.
BH3/6 3.0m to 3.9m. A soft, dark grey sandy clay with coarse grit. The deposit contains shell and wood and is very organic.
BH3/7 3.9m to 4.6m. A firm grey sandy clay with pea shingle, shell and fragments of shattered limestone.
BH3/8 At 4.6m. A stiff, grey, 'natural' lower lias clay.

Borehole 4 Located in the carpark to the north of Castle Street, approximately 50m north of the proposed line of the outer moat.

BH4/1 From ground level to 1.1m. Tarmac and hard-core.
BH4/2 1.1m to 1.7m. Firm brown mottled sandy clay and mortar.
BH4/3 1.7m to 1.9m. Firm brown-grey mottled clay with pea grit.
BH4/4 1.9m to 2.7m. Soft brown sandy clay.
BH4/5 2.7m to 3.0m. Fairly firm grey silty clay.
BH4/5a 3.0m to 3.3m. Soft grey clay, very organic.
BH4/6 3.3m to 3.6m. Mid-brown sand and gravel with clay.
BH4/7 3.6m to 4.3m. Stiff grey clay with stone.
BH4/8 4.3m to 9.2m. Stiff grey, fossiliferous, lower lias clay.
BH4/9 At 9.2m. Hard grey, fossiliferous, lower lias limestone.

Borehole 5 Located in the carpark to the north of Castle Street, approximately 30m north of the proposed line of the outer moat.

BH5/1 From ground level to 0.15m. Tarmac.
BH5/2 0.15m to 0.6m. Modern hard-core.
BH5/3 0.6m to 1.6m. Firm brown sandy clay with some silt and gravel.
BH5/4 1.6m to 2.6m. Soft brown sandy clay with gravel.
BH5/5 2.6m to 2.9m. Firm blue grey, organic silty clay.
BH5/5 2.9m to 3.6m. Dense gravel.
BH5/6 3.6m to 8.3m. Stiff grey, fossiliferous, lower lias clay.
BH5/7 At 8.3m. Hard grey, fossiliferous, lower lias limestone.

Borehole 6 Located in the carpark to the north of Castle Street, to the north of the proposed inner moat, and to the south of the proposed outer moat.

BH6/1 From ground level to 0.1m. Tarmac.
BH6/2 0.1m to 0.7m. Stone hard-core.
BH6/3 0.7m to 1.1m. Firm grey-brown sandy clay, with pea grit and flecks of white mortar.
BH6/4 1.1m to 1.9m. Very dark brown sandy clay, with flecks of white mortar and gravel.
BH6/5 1.9m to 2.6m. Soft, light brown sandy clay with pea grit.
BH6/6 2.6m to 2.8m. Grey-black, organic, silty clay with fragments of crushed sandstone.
BH6/7 2.8m to 3.1m. Black, very wet, organic silt.
BH6/8 3.1m to 3.9m. Loose gravel.
BH6/9 At 3.9m. Stiff grey, fossiliferous, lower lias clay.

Borehole 7 Located in the carpark to the north of Castle Street, approximately 75m north of the proposed line of the outer moat.

BH7/1 From ground level to 0.35m. Tarmac.
BH7/2 0.35 to 0.5m. Hard-core and gravel.

BH7/3 0.5m to 1.8m. Loose medium coarse sand and gravel with clay.
BH7/4 At 3.6m. Stiff grey, fossiliferous, lower lias clay.

Borehole 8 Located in the carpark to the north of Castle Street, within the proposed area of the inner bailey.

BH8/1 From ground level to 0.8m. Tarmac and hard-core.
BH8/2 0.8m to 1.2m. Loose sandy brown clay, with brick fragments, charcoal flecks and crushed white mortar.
BH8/3 1.2m to 1.6m. Dark brown sandy clay with charcoal and fragments of red brick.
BH8/4 1.6m to 2.6m Stiff brown, coarse sandy clay with occasional charcoal flecks and small pebbles.
BH8/5 2.6m to 2.8m. Firm brown sandy clay with occasional small pebbles, flecks of manganese and flecks of charcoal.
BH8/6 2.8m to 3.0m. Firm brown sandy clay with frequent small pebbles, and flecks of charcoal.
BH8/7 3.0m to 3.7m. Brown sandy clay, slightly less compact, with occasional pebbles.
BH8/8 3.7m to 4.5m. Coarse brown sandy clay with occasional gravel.
BH8/9 4.5m to 5.2m. Brown sand and gravel with a clay matrix.
BH8/10 5.2m to 5.3m. Brown sandy clay with frequent pebbles.
BH8/11 5.3m to 7.9m Stiff grey, fossiliferous, lower lias clay.
BH8/12 At 7.9m Hard grey, fossiliferous, lower lias limestone.

Borehole 9 Situated on park land immediately to the north of the Oxford Canal.

BH9/1 From ground level to 0.45m. Turf and topsoil, dark brown with fragments of red brick and carbonised material.
BH9/2 0.45m to 1.65m. Brown silty clay with fragments of red brick and charcoal.
BH9/3 1.65m to 2.1m. Loose brown sand and gravel with a clay matrix.
BH9/4 2.1m to 2.7m. Firm stony blue-grey clay.
BH9/5 2.7m to 2.8m. Firm brown-grey sandy clay.
BH9/6 2.8m to 3.3m. Firm brown clay with gravel.
BH9/7 3.3m to 6.5m. Stiff grey, fossiliferous, lower lias clay.
BH9/8 At 6.5m Hard grey, fossiliferous, lower lias limestone.

Borehole 10 Situated on park land immediately to the north of the Oxford Canal.

BH10/1 From ground level to 0.25m. Turf and topsoil, dark brown with fragments of red brick.
BH10/2 0.25m to 1.00m. Firm brown clay with fragments of red brick and charcoal.
BH10/3 1.00m to 1.2m. Loose brown sand and gravel with a clay matrix.
BH10/4 1.2m to 1.3m. Firm brown sandy clay.
BH10/5 1.3m to 2.0m. Soft brown mottled clay with occasional stones.
BH10/6 2.0m to 2.8m. Loose brown sand and gravel with clay.
BH10/7 2.8m to 2.9m. Soft grey-brown sandy clay with occasional pebbles.
BH10/8 2.9m to 5.0m. Stiff grey, fossiliferous, lower lias clay.

Borehole 11 Situated on park land immediately to the north of the Oxford Canal.

BH11/1 From ground level to 0.4m. Turf and top-soil.
BH11/2 0.4m to 0.7m. Firm brown clay with fragments of red brick and charcoal.
BH11/3 0.7m to 1.0m. Firm brown mottled clay.
BH11/4 1.0m to 2.0m. Soft brown stony clay.
BH11/5 2.0m to 3.9m. Brown sand and gravel with a clay matrix.
BH11/6 3.9m to 4.0m. Soft grey-brown sandy clay.
BH11/7 4.0m to 4.1m. Hard grey, fossiliferous, lower lias limestone.

Borehole 12 Situated on park land approximately 50m northeast of the Oxford Canal.

BH12/1 From ground level to 0.2m. Turf and topsoil.
BH12/2 0.2m to 1.7m. Firm blue-brown clay with traces of mudstone.
BH12/3 1.7m to 3.8m. Soft blue-brown clay with gravel.
BH12/4 3.8m to 4.2m. Loose brown sand and gravel with a clay matrix.
BH12/5 4.2m to 4.3m. Large cobbles with gravel.
BH12/6 4.3m to 6.5m. Stiff grey, fossiliferous, lower lias clay.
BH12/7 At 6.5m Hard grey, fossiliferous, lower lias limestone.

Borehole 13 Situated on park land, approximately 90m northeast of the Oxford Canal, and 50m south of the River Cherwell.

BH13/1 From ground level to 0.3m. Topsoil with fragments of red brick.
BH13/2 0.3m to 0.7m. Firm brown sandy clay with fragments of red brick.
BH13/3 0.7m to 1.6m. Firm grey sandy clay with silt.
BH13/4 1.6m to 3.3m. Soft brown sandy clay.
BH13/5 3.3m to 6.4m. Stiff blue-grey clay with organic remains, possibly the result of root action.
BH13/6 At 6.4m. Stiff grey, fossiliferous, lower lias clay.

Borehole 14 Situated on park land, approximately 8m south of the River Cherwell.

BH14/1 From ground level to 0.2m. Turf and topsoil.
BH14/2 0.2m to 1.2m. Stiff grey-brown clay with discarded steel reinforcing bars and fragments of brick.
BH14/3 1.2m to 1.6m. Firm grey, organic, sandy clay.
BH14/4 1.6m to 3.7m. Soft to firm, blue-green silty clay.
BH14/5 3.7m to 4.3m. Grey silty clay with sub-angular gravel.
BH14/6 4.3m to 4.7m. Grey silty clay with gravel.
BH14/7 4.7m to 6.3m. Stiff grey, fossiliferous, lower lias clay.
BH14/8 At 6.3m. Hard grey, fossiliferous, lower lias limestone.

Borehole 15 Situated on contaminated land, approximately 30m northeast of the River Cherwell.

BH15/1 From ground level to 0.25m. Turf and topsoil.
BH15/2 0.25m to 2.5m. Modern domestic waste, including metal and glass.
BH15/3 2.5m to 3.3m. Soft to firm blue-grey sandy, alluvial clay.
BH15/4 3.3m to 4.3m. Grey-brown sandy, alluvial clay.
BH15/5 4.3m to 5.0m. Loose grey river gravels with silt.
BH15/6 At 5.0m. Stiff grey, fossiliferous, lower lias clay.

Borehole 16 Situated on contaminated land, approximately 25m northeast of the River Cherwell.

BH16/1 From ground level to 0.15m. Turf and topsoil.
BH16/2 0.15m to 3.0m. Modern domestic waste, including metal, wood and glass.
BH16/3 3.0m to 3.4m. Soft to firm blue-grey sandy clay.
BH16/4 3.4m to 4.1m. Soft grey-brown sandy clay.
BH16/5 4.1m to 4.9m. Soft blue-grey silt with sparse gravel.
BH16/6 4.9m to 5.5m. Loose grey gravel with silt.
BH16/7 At 5.5m. Stiff grey, fossiliferous, lower lias clay.

Borehole 17 Located in the bus depot, immediately to the south of the Oxford Canal.

BH17/1 From ground level to 1.1m. Tarmac and hard-core.
BH17/2 1.1m to 1.6m. Soft grey clay with fragments of crushed rock.
BH17/3 1.6m to 2.0m. Firm grey-brown clay with occasional large stones.
BH17/4 2.0m to 2.4m. Stiff brown-grey clay with lenses of light grey clay.
BH17/5 2.4m to 3.0m. Stiff brown-grey clay.
BH17/6 3.0m to 3.3m. Stiff, compact brown clay with fragments of shell.
BH17/7 At 3.3m. Hard grey, fossiliferous, lower lias limestone.

Borehole 18 Located in the carpark to the north of Castle Street, along the southern edge of the projected line of the outer moat.

BH18/1 From ground level to 0.8m. Tarmac and hard-core.
BH18/1a 0.8m to 1.5m. Firm brown clay with crushed rock.
BH18/2 1.5m to 1.7m. Firm brown clay with lenses of grey clay.
BH18/3 1.7m to 2.0m. Firm mottled brown clay.
BH18/4 2.0m to 2.3m. Dark grey-brown sandy clay.
BH18/5 2.3m to 3.3m. Stiff brown and grey mottled clay.
BH18/6 3.3m to 4.5m. Firm grey silty clay.
BH18/6a 4.5m to 5.0m. Firm grey silty clay with dark grey organic lenses.
BH18/7 5.0m to 5.8m. Brown-grey sand and gravel with silt.
BH18/8 5.8m to 6.6m. Stiff grey, fossiliferous, lower lias clay.
BH18/9 At 6.6m. Hard grey, fossiliferous, lower lias limestone.

Borehole 19 Located to the north of Castle Street, directly through the middle of the projected line of the inner moat.

BH19/1 From ground level to 1.5m. Turf and topsoil, overlying stiff brown clay containing crushed ironstone, brick and concrete rubble.
BH19/2 1.5m to 2.0m. A very mixed layer of silt, sand , mortar, brick and crushed sandstone with flecks of charcoal.
BH19/3 2.0m to c2.5m. Brown silt sand mixed with lumps of grey clay. This deposit contained large fragments of red brick, mortar, and flecks of charcoal.
BH19/4 c2.5m to 3.00m. Brown silt with clay containing flecks of white mortar, red brick and charcoal.
BH19/5 3.0m to c3.5m. Brown sandy silt with pea grit and fragments of red brick and glass.
BH19/6 c3.5m to 4.0m. Brown organic silt with dense amounts of white mortar and occasional fragments of red brick.
BH19/7 4.0m to 4.5m. Soft brown sandy clay with fragments of ironstone, mortar, red brick and wood.

BH19/8 4.5m to 5.0m. Dark grey-brown organic silt with clay, containing flecks of charcoal and white mortar.
BH19/9 5.0m to 5.4m. Dark grey clay with abundant charcoal and organic remains.
BH19/10 5.4m to 5.5m. Dark brown-black organic silt with lenses of grey clay silt. This deposit also contained abundant shell and wood fragments, with occasional flecks of red brick.
BH19/11 5.5m to 6.2m. Firm grey clay with shell flecks.
BH19/12 6.2m to 7.7m. Stiff grey, fossiliferous, lower lias clay.
BH19/13 At 7.7m. Hard grey, fossiliferous, lower lias limestone.

Borehole 20 Situated on park land approximately 40m to the northeast of the Oxford Canal.

BH20/1 From ground level to 0.15m. Turf and topsoil.
BH20/2 0.15m to 0.7m. Firm brown clay with fragments of red brick, charcoal and mortar.
BH20/3 0.7m to 1.5m. Firm brown sandy clay mottled with grey clay. This deposit also contains fragments of red brick and charcoal.
BH20/4 1.5m to 3.5m. Soft light brown clay with gravel.
BH11/5 3.5m to 7.5m. Stiff grey, fossiliferous, lower lias clay with flecks of shell.
BH20/6 7.5m to 9.8m. Stiff grey, fossiliferous, lower lias clay.
BH20/7 At 9.8m. Hard grey, fossiliferous, lower lias limestone.

Borehole 21 Located on contaminated ground approximately 45m to the northeast of the River Cherwell.

BH21/1 From ground level to 0.2m. Turf and topsoil.
BH21/2 0.2m to 1.1m. Modern domestic waste, including metal, wood and glass.
BH21/3 1.1m to 1.8m. Firm black-brown clay.
BH21/4 1.8m to 2.0m. Soft to firm blue-grey sandy clay.
BH21/5 2.0m to 3.5m. Stiff grey-brown clay.
BH21/6 At 3.5m. Soft grey-brown sandy clay.

Borehole 22 Located immediately to the south of Castle Street, on the outer edge of the projected line of the inner moat.

BH22/1 From ground level to 0.4m. Turf and topsoil.
BH22/2 0.4m to 1.7m. Building rubble with a sandy clay matrix, containing mortar, charcoal, wood and modern red brick with fragments of slate and glass.
BH22/3 1.7m to 2.6m. Stiff brown clay with mortar, charcoal and fragments of crushed red brick and iron stone.
BH22/4 2.6m to 3.0m. Stiff brown clay with mortar, ironstone, charcoal and ash.
BH22/5 3.0m to 3.4m. Stiff brown clay with abundant flecks of mortar and charcoal. This deposit also contained lumps of sub-rounded sandstone and fragments of bone.
BH22/6 3.4m to 4.3m. Brown sandy clay with flecks of crushed ironstone and sandstone.
BH22/7 4.3m to 4.6m. Mottled grey-brown clay, with abundant organic material, particularly wood.
BH22/8 4.6m to 4.8m. Firm grey-brown sandy clay.
BH22/9 4.8m to 5.3m. Dark grey-black sandy clay with flecks of crushed sandstone and shell.
BH22/10 At 5.3m. Stiff grey, fossiliferous, lower lias clay.

Borehole 23 Located approximately 3m to the southeast of Tooleys Boat Yard, within the projected line of the outer moat.

BH23/1 From ground level to 0.2m. Turf and topsoil.
BH23/2 0.2m to 0.6m. A mixed layer of dark brown silt and ash with modern occupation deposits and asbestos.
BH23/3 0.6m to 1.2m. Brown-black ash and silt with brick rubble, mortar and fragments of crushed sandstone.
BH23/4 1.2m to 1.7m. A friable, brown silty clay with flecks of charcoal, brick, white mortar and fragments of 19th century pottery.
BH23/5 1.7m to 2.9m. A mid-brown sandy clay with no inclusions evident.
BH23/6 2.9m to 3.0m. A firm grey-brown, mottled clay with occasional bone fragments.
BH23/7 3.0m to 3.6m. Brown sand and gravel mottled with brown sandy clay.
BH23/8 At 3.6m. A stiff blue, possibly natural, clay. Borehole 23 was abandoned at this depth due to the presence of an obstacle, possibly a metal object.

Borehole 24 Located in the bus depot immediately to the north of Mill Lane.

BH24/1 From ground level to 1.0m. Tarmac and hard-core.
BH24/2 1.0m to 2.3m. Firm, light brown sandy clay mottled with grey clay. This deposit becomes softer at approximately 1.5m.
BH24/3 2.3m to 2.9m. Soft brown stony clay.
BH24/4 2.9m to 3.35m. Stiff grey and brown silty clay with flecks of shell.
BH24/5 At 3.35m. Hard grey, fossiliferous, lower lias limestone.

Borehole 25 Located on a shale surface to the east of Mill Lane.

BH25/1 From ground level to 0.6m. Shale surface overlying silt and rubble.
BH25/2 0.6m to 1.5m. Firm brown silty clay with gravel.
BH25/3 1.5m to 1.9m. Firm brown silty clay.
BH25/4 1.9m to 2.0m. Brown sand and gravel with a clay matrix.
BH25/5 2.0m to 2.1m. Firm grey-green clay with sand.
BH25/6 2.1m to 3.1m. Grey clay mottled with brown sandy clay containing fragments of crushed sandstone.
BH25/7 At 3.1m. Stiff grey, fossiliferous, lower lias clay.

Borehole 26 Located approximately 10m south of the River Cherwell.

BH26/1 From ground level to 0.3m. Topsoil.
BH26/2 0.3m to 0.6m. Stone, rubble and concrete hard-core.
BH26/3 0.6m to 1.2m. Firm brown clay with rubble.
BH26/4 1.2m to 2.3m. Loose brown sand and gravel.
BH26/5 2.3m to 3.4m. Firm blue-brown, slightly sandy clay.
BH26/6 At 3.4m. Stiff grey, fossiliferous, lower lias clay.

Borehole 27 Located in the carpark approximately 30m to the north of Castle Street, through the middle of the northwest corner of the projected line of the inner moat.

BH27/1 From ground level to 0.7m. Tarmac and hard-core.
BH27/2 0.7m to 1.8m. Firm brown clay with crushed ironstone, sandstone and flecks of charcoal.

BH27/3 1.8m to 2.9m. Firm brown clay with ironstone, charcoal, brick, and white mortar.
BH27/4 2.9m to 3.0m. Soft brown clay with coarse sand, small sub-angular pieces of ironstone and charcoal.
BH27/5 3.0m to 3.6m. Firm grey, mottled, organic silty-clay, with crushed red and orange sandstone.
BH27/6 3.6m to 3.9m. Firm grey, mottled, organic clay.
BH27/7 3.9m to 4.6m. Stiff grey clay with fibrous organic material, possibly the result of root activity.
BH27/8 At 4.6m. Stiff grey, fossiliferous, lower lias clay.

APPENDIX II

TEST-PITS 1-37

Test-pit 1 Located in the carpark to the north of Castle Street and within the proposed line of the outer moat.

TP1/1 From ground level to 0.6m. Tarmac and hard-core.
TP1/2 0.6m to 1.8m. Cellar infilled with rubble and brick. The base of the cellar is lined with brick. Brick foundations, cutting the deposit below, continue to a depth of 2.1m.
TP1/3 1.8m to 2.6m. Light brown sandy clay with occasional flecks of charcoal and shell.
TP1/4 2.6m to the base of the test-pit at 3.5m. Dark grey-brown silty-clay with flecks of shell and organic material.

Test-pit 2 Located in the carpark to the north of Castle Street, within the northwest corner of the proposed line of the outer moat.

TP2/1 From ground level to 0.8m. Tarmac and hard-core.
TP2/2 0.8m to 1.3m. Orange-brown sandy clay with occasional pea grit and sub-rounded stones. This deposit also contains large, irregular, ironstone blocks.
TP2/3 1.3m to 2.3m. Two layers were apparent at this depth. The first, a dark grey organic clay silt appeared to cut TP2/4.
TP2/4 1.3m to 2.3m. A pocket of orange-brown sand and gravel.
TP2/5 2.3m to 2.4m. Very dark grey clay with silt and organic remains.
TP2/6 2.4m to 2.5m. Brown-black organic material with the appearance of peat.
TP2/7 From 2.5m to the base of the test-pit at 3.1m. Very dark grey clay silt.

Test-pit 3 Located on contaminated land approximately 65m to the northeast of the River Cherwell.

TP3/1 From ground level to 0.15m. Turf and clay topsoil
TP3/2 0.15m to 2.1m. Modern domestic land-fill.
TP3/3 2.1m to 3.2m. Soft grey alluvial clay.
TP3/4 At 3.2m. Light brown alluvial clay apparent at the very base of the test-pit.

Test-pit 4 Situated on park land approximately 33m northeast of the Oxford Canal.

TP4/1 From ground level to 0.2m. Turf and topsoil.
TP4/2 0.2m to 0.85m. Mid-brown clay with silt, red brick,charcoal flecks and occasional lumps of grey clay.
TP4/3 0.85m to 1.5m. Light brown clay with flecks of shell.
TP4/4 1.5m to the base of the test-pit at 3.0m. Dark brown clay with gravel.

Test-pit 5 Situated on park land approximately 75m northeast of the Oxford Canal.

TP5/1 From ground level to 0.2m. Turf and topsoil.
TP5/2 0.2m to 0.75m. Mixed layer of made ground, consisting of grey clay, silt, brick and gravel.
TP5/3 0.75m to 1.9m. Firm, slightly organic, mottled, grey and brown sandy clay.
TP5/4 1.9m to 2.1m. Soft orange-brown clay.

TP5/5 2.1m to 2.8m. Blue-grey mottled organic clay with root activity.
TP5/6 2.8m to the base of the test-pit at 3.1m. Mixed brown gravel with flint and a sandy clay matrix.

Test-pit 6 Situated on park land approximately 80m northeast of the Oxford Canal.

TP6/1 From ground level to 0.2m. Turf and grass.
TP6/2 0.2m to 1.0m. Brown clay with brick.
TP6/3 1.0m to 1.5m. Dark silty clay with modern domestic refuse.
TP6/4 1.5m to 1.8m. Soft grey-brown sandy clay, with a band of grey clay at the base.
TP6/5 1.8m to the base of the test-pit at 3.1m. Soft light brown clay, with gravel and pea grit.

Test-pit 7 Located on contaminated land approximately 45m to the northeast of the River Cherwell.

TP7/1 From ground level to 0.7m. Turf and topsoil overlying ash.
TP7/2 0.7m to 2.2m. Modern domestic land-fill.
TP7/3 2.2m to the base of the test-pit at 3.0m. Mottled grey-brown alluvial clay.

Test-pit 8 Located to the extreme northwestern corner of the study area.

TP8/1 From ground level to 0.1m. Tarmac.
TP8/2 0.1m to 0.7m. Hard-core and tarmac.
TP8/3 0.7m to the base of the test-pit at 3.0m. Soft light brown sandy clay with small stones and pea grit.

Test-pit 9 Located in the lorry park, to the extreme northwestern corner of the study area.

TP9/1 From ground level to 0.1m. Tarmac.
TP9/2 0.1m to 0.6m. Hard-core and tarmac.
TP9/3 0.6m to the base of the test-pit at 3.1m. Orange-brown sandy clay with small stones and pea grit, gradually becoming darker and more sandy towards the base.

Test-pit 10 Situated on park land approximately 22m northeast of the Oxford Canal.

TP10/1 From ground level to 0.2m. Turf and topsoil.
TP10/2 0.2m to 0.7m. Mid-brown clay with silt, red brick,charcoal flecks and occasional lumps of grey clay.
TP10/3 0.7m to 1.5m. Light brown clay with flecks of shell.
TP10/4 1.5m to 1.8m. Dark brown silt with clay.
TP10/5 1.8m to 2.5m. Mid-brown, wet sandy clay.
TP10/6 2.5m to the base of the test-pit at 3.0m. Mid-brown, wet sandy clay mottled with blue-grey clay.

Test-pit 11 Situated on grass immediately to the southwest of the Oxford Canal.

TP11/1 From ground level to 0.25m. Turf and topsoil.
TP11/2 0.25m to 0.7m. Dark brown silt with clay and white mortar.
TP11/3 0.7m to 1.9m. Dark brown silt with clay and rubble, gradually becoming lighter towards the base.
TP11/4 1.9m. to 2.3m. Dark grey clay.
TP11/5 At 2.3m. A red brick and concrete culvert, aligned northeast-southwest and approximately 1.0m in diameter. Test-pit 11 was abandoned at this depth due to the discovery of the culvert.

Test-pit 12 Located on contaminated land approximately 35m to the northeast of the River Cherwell.

TP12/1 From ground level to 0.1 m. Turf and topsoil.
TP12/2 0.1m to 1.7m. Modern domestic land-fill.
TP12/3 1.7m to 2.9m. Firm, grey alluvial sandy clay.
TP12/4 2.9m to the base of the test-pit at 3.0m. Soft, blue-grey, slightly gritty clay.

Test-pit 13 Located on contaminated land to the north of the River Cherwell.

TP13/1 From ground level to 0.1m. Turf and topsoil.
TP13/2 0.1m to 1.75m. Modern domestic land-fill.
TP13/3 1.75m to 2.4m. Light brown clay.
TP13/4 2.4m to the base of the test-pit at 3.0m. Soft, blue-grey clay with dark grey, organic mottling.

Test-pit 14 Orientated east-west, Test-pit 14 was located in the carpark approximately 10m north of Castle Street. This was machined along the western side of the proposed line of the inner moat. Due to the way in which the layers slope there is a discrepancy between the depths of the deposits at each end of the trench.

TP14/1 From ground level to 0.4m at the west end sloping to 0.75m at the east end. Tarmac, hard-core, brick and modern rubble.
TP14/2 0.4m to 1.0m. Brown clay with sand, silt and abundant angular ironstone, with mortar.
TP14/3 1.0m to 1.3m. Compact silt and mortar with flecks of charcoal.
TP14/4 1.3m to the base of the test-pit at 3.0m. Very sandy clay with pea grit.

Test-pit 15 Orientated north-south, Test-pit 15 was located in the carpark approximately 35m north of Castle Street.

TP15/1 From ground level to 0.5m. Tarmac and hard-core.
TP15/2 0.5m to 0.7m. Silt with large angular ironstone fragments, some of which show traces of burning.
TP15/3 0.7m to 2.4m. A dense concentration of large ironstone blocks up to 0.4m in size. No definite structure or alignment could be perceived within the layer. A thin layer of charcoal was evident from 1.4 to 1.5m, although the essential nature of the layer continued to a depth of 2.4m Three of the blocks were noted as being dressed stone, none of these however, were intact or diagnostic. This deposit appears to cease at the extreme southern end of the trench, and is not apparent in the north-facing section.

TP15/4 2.4m to the base of the test-pit at 3.0m Dark grey, organic clay with silt and charcoal.

Test-pit 16 Situated on grass slightly to the southwest of the Oxford Canal, Test-pit 16 was abandoned at 0.9m due to the presence of two services aligned east-west.

Test-pit 17 Situated adjacent to and slightly north of the Oxford Canal.

TP17/1 From ground level to 0.5m. Turf and topsoil.
TP17/2 0.5m to 0.8m. Stiff, dark brown sandy clay, with brick and charcoal.
TP17/3 0.8m to 1.0m. Dark brown silt.
TP17/4 1.0m to 1.6m. Firm, grey-brown mottled clay.
TP17/5 1.6m to 2.7m. Grey alluvial clay.
TP17/6 2.7m to the base of the test-pit at 3.1m. Orange-brown sand and gravel, with mudstone and clay.

Test-pit 18 Located to the north of Castle Street, on the eastern side of the proposed line of the inner moat.

TP18/1 From ground level to 0.1m. Turf and topsoil.
TP18/2 0.1m to 1.35m. Loose, brown silt with sand and white mortar. Test-pit abandoned at 1.35m due to the presence of services aligned northwest-southeast.

Test-pit 19 Orientated east-west, Test-pit 19 was situated on grass slightly to the southwest of the Oxford Canal, Test-pit 19 was located between the proposed lines of the two moats.

TP19/1 From ground level to 0.3m. Turf and topsoil.
TP19/2 0.3m to 1.1m. Modern deposit of mixed ash, silt, slag and pea shingle.
TP19/3 1.1m to 1.4m. Hard-core make-up/asphalt.
TP19/4 1.4m to 1.7m. Stiff brown clay. A service, orientated east-west was evident at a depth of 1.5m.
TP19/5 1.7m to 2.4m. Modern brick and rubble.
TP19/6 2.4m to the base of the test-pit at 3.0m. Dark brown organic clay.

Test-pit 20 Located in the middle of the proposed line of the inner moat, to the south of Castle Street.

TP20/1 From ground level to 0.4m. Topsoil.
TP20/2 0.4m to 2.4m. Brown sub-rounded gravel, with cobbles of brick, concrete and fragments of wood.
TP20/3 2.4m to the base of the test-pit at 3.0m. Mottled brown and grey sandy clay, with gravel, crushed sandstone and charcoal.

Test-pit 21 Located adjacent to Tooleys Boat Yard on the proposed western line of the outer moat.

TP21/1 From ground level to 0.2m. Turf and topsoil.
TP21/2 0.2m to 0.6m. Dark brown silt and ash with asphalt and asbestos.
TP21/3 0.6m to 1.2m. Brown-black silt with ash, brick rubble and sandstone. This deposit produced two rim sherds from a pancheon with an internal dark brown

glaze, and a profile fragment from and unglazed whiteware collander probably dating to the 19th century.
TP21/4 1.2m to 1.7m. Brown silt clay with red brick, charcoal, mollusc shell and mortar. Fragments of clay pipe and one rim sherd from a glazed whiteware bowl, probably of 19th century date were recovered from this deposit.
TP21/5 1.7m to 2.9m. Mid-brown sandy clay, containing one mollusc shell and an amorphus lead fragment, possibly a industrial waste product.
TP21/6 2.9m to the base of the test-pit at 3.1m. Firm, mottled grey and brown clay with silt and fragments of bone.

Test-pit 22 Situated on the bus depot carpark adjacent to the Oxford Canal.

TP22/1 From ground level to 0.35m. Tarmac and hard-core.
TP22/2 0.35m to 1.4m. Very dark grey silty, organic clay, with the trunk of a tree lying on its side at 1.0m.
TP22/3 1.4m to 1.8m. Grey, waterlogged silty clay, with fragments of bone.
TP22/4 1.8m to 2.7m. A very sandy clay with gravel.
TP22/5 2.7m. Stiff grey layered clay.
These deposits would appear to be the fill of a channel, or an isolated deposit, since brown clay is evident from 0.35m to the base of the test-pit at 3.1m in the south-facing section.

Test-pit 23 Test-pit 23 was not excavated.

Test-pit 24 Located on the bus depot carpark adjacent to the Oxford Canal.

TP24/1 From ground level to 0.4m. Tarmac and hard-core.
TP24/2 0.4m to 0.6m. Angular ironstone hard-core
TP24/3 0.6m to 1.2m. Dark brown silt with sand and clay.
TP24/4 1.2m to 2.1m. Orange-brown sand and gravel, consisting largely of pea shingle, and sub-rounded pebbles up to 0.02m.
TP24/5 2.1m to 2.65m. Stiff, light grey clay, mottled with occasional brown silt. No evidence of inclusions.
TP24/6 At 2.65m. Hard grey, fossiliferous, lower lias limestone.

Test-pit 25 Located in the bus park to the north of Mill Lane.

TP25/1 From ground level to 0.3m. Tarmac and hard-core.
TP25/2 0.3m to 0.6m. Ironstone hard-core and red brick rubble.
TP25/3 0.6m to 0.7m. Light brown silty clay with flecks of charcoal.
TP25/4 0.7m to 1.4m. Orange-brown clay with silt and sand.
TP25/5 1.4m to 2.1m. Orange-brown sandy clay with small stones.
TP25/6 2.1m to the base of the test-pit at 3.0m. Grey-brown, mottled clay.

Test-pit 26 Located on contaminated land approximately 100m to the northeast of the River Cherwell.

TP26/1 From ground level to 0.2m. Turf and topsoil.
TP26/2 0.2m to 0.8m. Modern domestic land-fill.
TP26/3 0.8m to 2.1m. Modern domestic land-fill, largely ash.
TP26/4 2.1m to 2.9m. Firm, grey-brown sandy clay.
TP26/5 2.9m to the base of the test-pit at 3.1m. Firm grey-brown sandy clay.

Test-pit 27 Located on a shale surface to the east of Mill Lane.

TP27/1 From ground level to 0.1m. Shale car park surface.
TP27/2 0.1 m to 0.95m. Red brick building foundation evident at the eastern end of the test-pit only.
TP27/3 0.1m to 0.45m. Red brick rubble and mortar with irregular ironstone blocks.
TP27/4 0.45m to 1.1m. Grey-brown clay with sand and pea grit, which appears to overlie two courses of an ironstone wall, aligned north-south.
TP27/5 1.1m to 2.0m. Light brown sandy clay with small sub-rounded stones.
TP27/6 2.0m to 2.3m. Mottled grey sandy clay.
TP27/7 2.3m to 2.8m. Hard grey, fragmented, fossiliferous, lower lias limestone.
TP27/8 2.8m to the base of the test-pit at 3.0m. Stiff grey, fossiliferous, lower lias clay.
Services noted at the western end of the test-pit, two water and one electric, aligned north-south, at a depth of 0.4m.

Test-pit 28 Located on park land, to the northeast of the Oxford Canal.

TP28/1 From ground level to 0.2m. Turf and topsoil.
TP28/2 0.2m to 0.75m. Brick rubble with mortar and sandstone.
TP28/3 0.75m to 1.7m. Grey-brown sandy clay with charcoal flecks and crushed sandstone.
TP28/4 1.7m to 1.8m. Grey, mottled alluvial clay.
TP28/5 1.8m to 2.3m. Soft grey alluvial clay.
TP28/6 2.3m to 2.8m. Soft brown, slightly sandy clay.
TP28/7 2.8m to 2.9m. Brown gravel and clay, with fragments of preserved wood.
TP28/8 2.9m to the base of the test-pit at 3.0m. Grey-brown sand with clay and wood fragments.

Test-pit 29 Located on park land to the south of the River Cherwell.

TP29/1 From ground level to 0.3m. Turf and topsoil.
TP29/2 0.3m to 0.4m. Black sub-angular gravel with ash and sand.
TP29/3 0.4m to 0.75m. Mottled brown and grey sandy clay, with brick, concrete, sandstone, charcoal and wood.
TP29/4 0.75m to 2.3m. Orange-brown sandy clay with gravel and charcoal.
TP29/5 2.3m to 2.8m. Soft, dark grey, mottled clay with abundant gravel.
TP29/6 2.8m to the base of the test-pit at 3.0m. Grey-brown gravel with flint and a soft, sandy clay matrix.

Test-pit 30 Located on park land to the south of the River Cherwell.

TP30/1 From ground level to 0.15m. Turf and topsoil.
TP30/2 0.15m to 1.5m. A mixed layer of blue-grey clay, brick rubble, wood and silt.
TP30/3 1.5m to 2.2m. Stiff grey-brown clay with red staining, wood and fragments of bone.
TP30/4 2.2m to the base of the test-pit at 3.0m. Soft, very dark grey, very organic mottled clay.

Test-pit 31 Located on park land to the south of the River Cherwell.

TP31/1 From ground level to 0.3m. Turf and topsoil.
TP31/2 0.3m to 1.0m. A mixed layer of blue-grey clay, brick rubble, plastic and wood.
TP31/3 1.0m to 2.7m. Firm grey-brown mottled clay.
TP31/4 2.7m to the base of the test-pit at 3.1m. Orange-brown clay and sand with flint.

Test-pit 32 Located to the south of Castle Street, within the proposed area of the inner bailey to Banbury Castle.

TP32/1 From ground level to 0.35m. Turf and topsoil.
TP32/2 0.35m to 1.05m. Modern building rubble, including mortar, charcoal, and modern pottery. The remains of a red brick wall were evident in the east-facing section.
TP32/3 1.05m to 2.0m. Mid-brown silt sand, with charcoal, mortar, modern pottery and brick.
TP32/4 2.0m to the base of the test-pit at 3.0m. Brown silt sand with lumps of grey clay. This appears to be a build up of levelling layers, containing angular ironstone, fragments of glass and mortar.

Test-pit 33 Situated towards the western end of Bridge Street.

TP33/1 From ground level to 0.3m. Tarmac, concrete and general hard-core.
TP33/2 0.3m to 0.55m. Orange-brown gravel with clay.
TP33/3 0.55m to 0.7m. Orange sandy clay with gravel.
TP33/4 0.7m to 0.85m. Light brown sandy clay with pea grit and charcoal. A service runs east-west across the test-pit, at a depth of 0.85m.
TP33/5 0.85m to 01.9m. Mottled brown and grey clay with limestone.
TP33/6 At 1.9m. Termination of excavation due to the presence of services aligned north-south. This appears to be a sewer aligned north-south, approximately 0.23m in diameter.

Test-pit 34 Located in the car park to the north of Castle Street on the northern side of the proposed line of the outer moat.

TP34/1 From ground level to 0.8m. Tarmac and hard-core.
TP34/2 0.8m to 1.1m. Layer of stone and gravel.
TP34/3 1.1m to the base of the test-pit at 3.0m. Orange-brown sandy clay with small stones and pea grit, gradually becoming darker and more sandy towards the base.

Test-pit 35 Situated on grass adjacent to the Oxford Canal.

TP35/1 From ground level to 0.25m. Turf and topsoil.
TP35/2 0.25m to 0.9m. Olive-brown loam with bricks, mortar and charcoal fragments.
TP35/3 0.9m to 2.0m. Blue-grey clay.
TP35/4 2.0m to 2.4m. Dark grey organic clay with silt.
TP35/5 2.4m to the base of the test-pit at 3.0m. Grey-brown clay.

Test-pit 36 Cancelled.

Test-pit 37 Located to the south of Castle Street, within the proposed area of the inner moat, to the south of the inner bailey.

TP37/1 From ground level to 0.6m. Turf and topsoil.
TP37/2 0.6m to 1.1m. Dark brown silty clay, with flecks of charcoal and crushed white mortar.
TP37/3 At 1.1m. Light brown silty clay with flecks of charcoal. Test-pit abandoned at this depth due to the presence of a sewer pipe aligned northwest-southeast.

APPENDIX III

TEST-TRENCHES 1C-7A

Test-trench 1C Located to the north of Bridge Street.

TT1C/1 Ground level to 0.24m. Paving slabs and hard-core.
TT1C/2 0.24m to the base of the test-trench at 0.95m. Firm brown clay with gravel, brick, glass and modern pottery.

Test-trench 2A Located opposite Muswells Bar, to the north of Bridge Street.

TT2A/1 From ground level to 0.30m. Paving slabs, hard-core and concrete.
TT2A/2 0.30m to 0.41m. A band of grey silt and charcoal, truncated to the west by service trenches.
TT2A/3 0.30m to 0.48m. Concrete slabs within a cut for services.
TT2A/4 0.41m to the base of the test-trench at 1.10m. Firm brown sandy clay with sub-rounded stone, local ironstone and charcoal flecks. This is a very uniform deposit with very few inclusions.

Test-trench 2B, located immediately to the east of Test-trench 2A.

TT2B/1 Ground level to 0.25m. Paving slabs overlying light-brown sand and hard-core.
TT2B/2 0.25m to the base of the test-trench at 1.10m. Firm brown sandy clay with sand and gravel and brick fragments.

Test-trench 3C Located to the west of the bus station carpark.

TT3C/1 Ground level to 0.29m. Paving slabs and hard-core.
TT3C/2 0.29m to 0.48m. Tarmac with occasional brick and concrete.
TT3C/3 0.48m to the base of the test-trench at 1.35m. Brown sandy clay with irregular shaped ironstone. (Two services evident at the base of the test-trench; aligned north-south, both 0.16m diameter ceramic pipes).

Test-trench 4A Located slightly to the north of the entrance to the bus station carpark.

TT4A/1 Ground level to 0.28m. Tarmac and hard-core.
TT4A/2 0.28m to 0.70m. Mixed rubble and brick, fill of cut evident at the eastern end of the trench.
TT4A/3 0.28m to 0.90m. Light brown stone, fill of service trench evident at the western end of the trench.
TT4A/4 0.90 to 1.35m. Firm silty brown clay, mottled with grey clay, charcoal flecks and some lumps of tarmac.

Test-trench 6A Located in the carpark to the north of Castle Street, in the area of Zone 5.

TT6A/1 Ground level to 0.18m. Tarmac and hard-core.
TT6A/2 0.18m to 0.90m. Irregular fragments of ironstone up to 0.20m across, with occasional lumps of tarmac lying within a modern cut.
TT6A/3 0.90m to the base of the test-trench at 1.5m. Stiff brown clay with silt, sand and charcoal flecks. Water evident at 1.40m.

Test-trench 7A Located in the carpark to the north of Castle Street, in the area of Zone 5.

TT7A/1 Ground level to 0.15m. Tarmac.
TT7A/2 0.15m to 0.30m. Irregular ironstone hardcore.
TT7A/3 0.30m to 1.10m. Irregular light brown stone, fill of service trench.
TT7A/4 0.30m to 0.64m. Layer of Ironstone, irregularly shaped fragments up to 0.15m.
TT7A/5 0.64m to 0.80m. Stiff grey clay mottled with brown sand and occasional flecks of charcoal.
TT7A/6 0.80m to 1.10m. Stiff brown clay with occasional flecks of red brick.

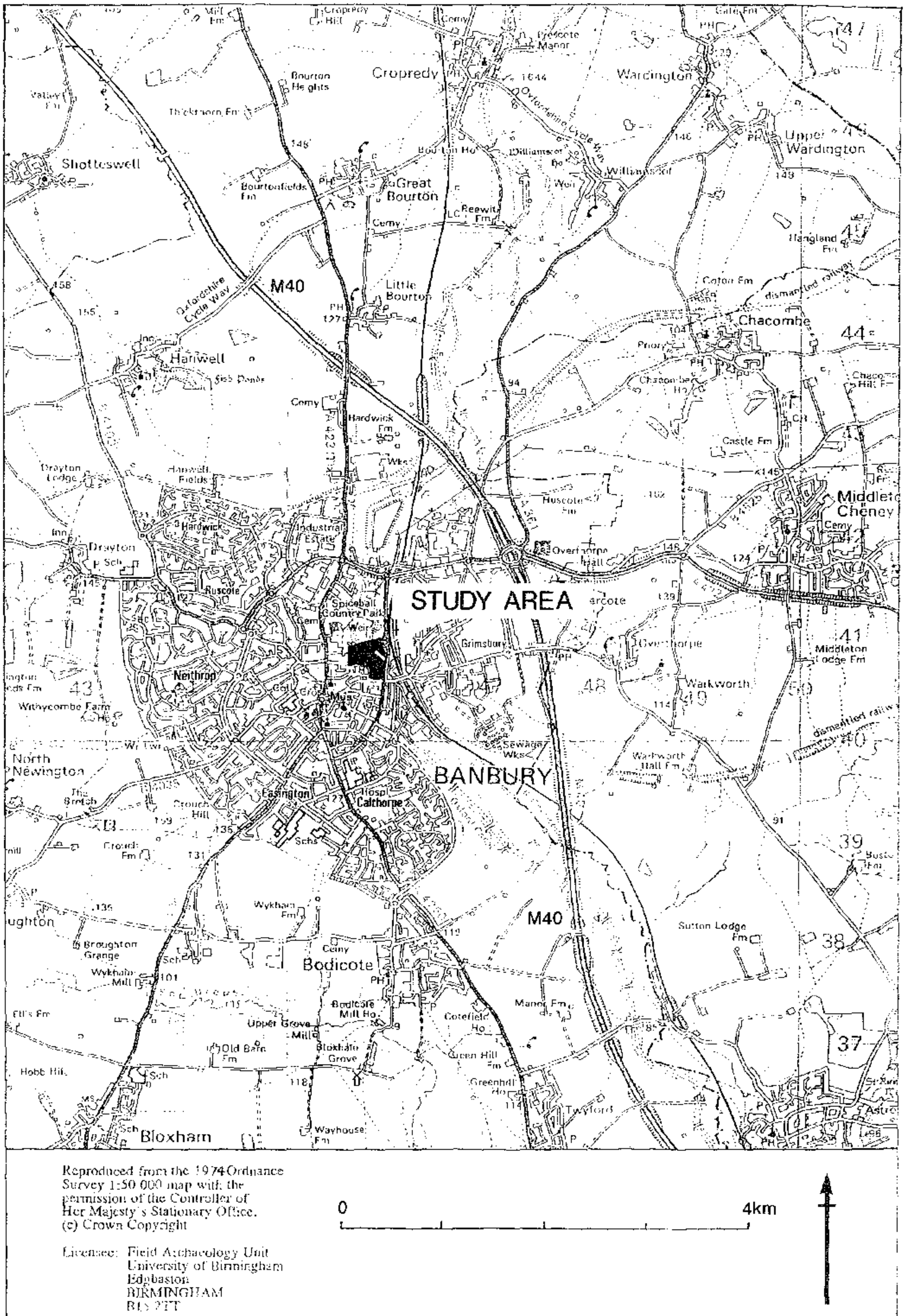

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Fig.1

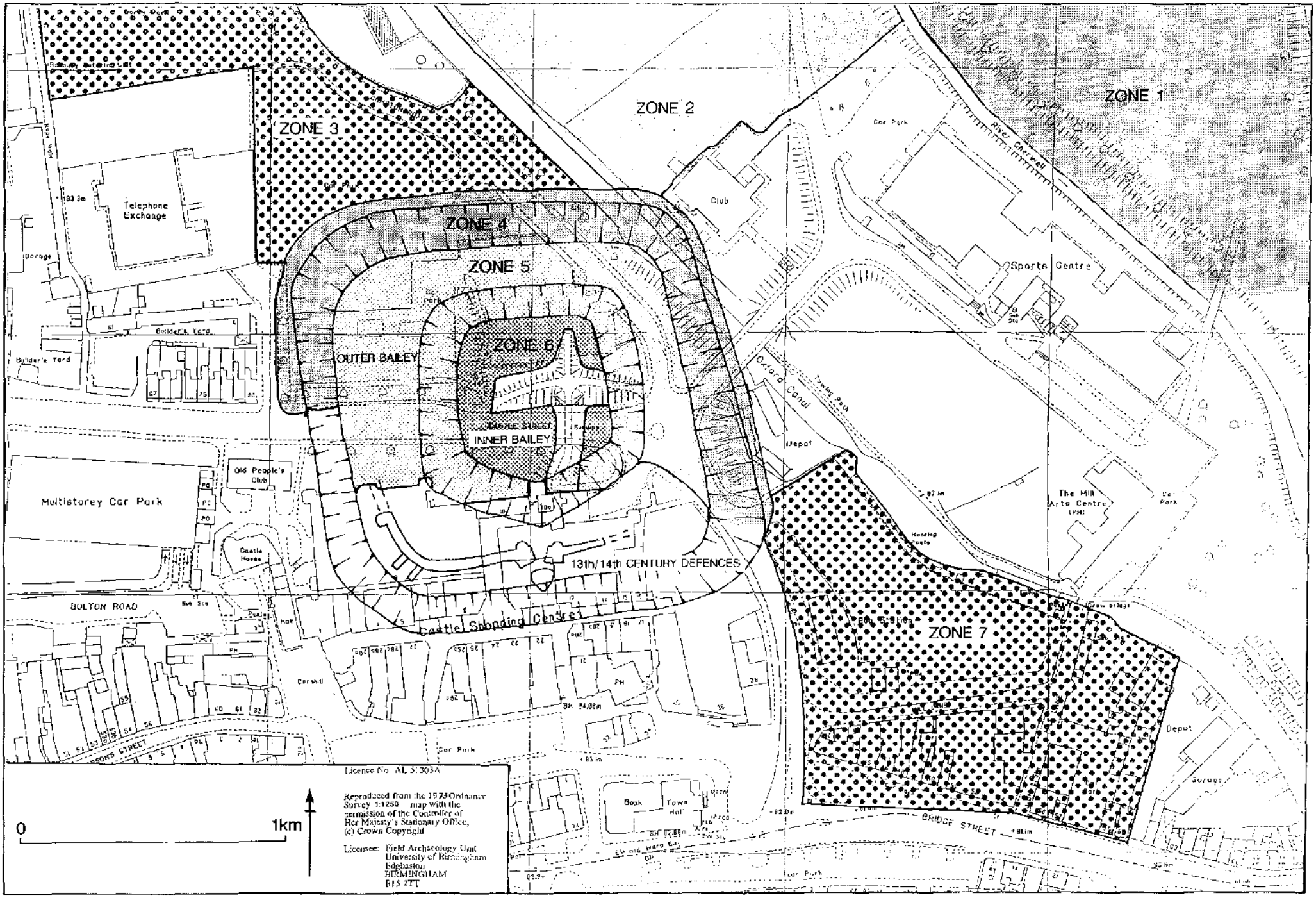
ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5
ZONE 6
ZONE 7
OUTER BAILEY
INNER BAILEY
13th/14th CENTURY DEFENCES
Castle Shopping Centre
Telephone Exchange
Multistorey Car Park
Old People's Club
Builder's Yard
Club
Car Park
Sports Centre
River Cherwell
Oxford Canal
Towing Path
Depot
The Mill Arts Centre (PH)
BOLTON ROAD
BRIDGE STREET
Bank
Town Hall
Garage
0
1km
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Fig.3

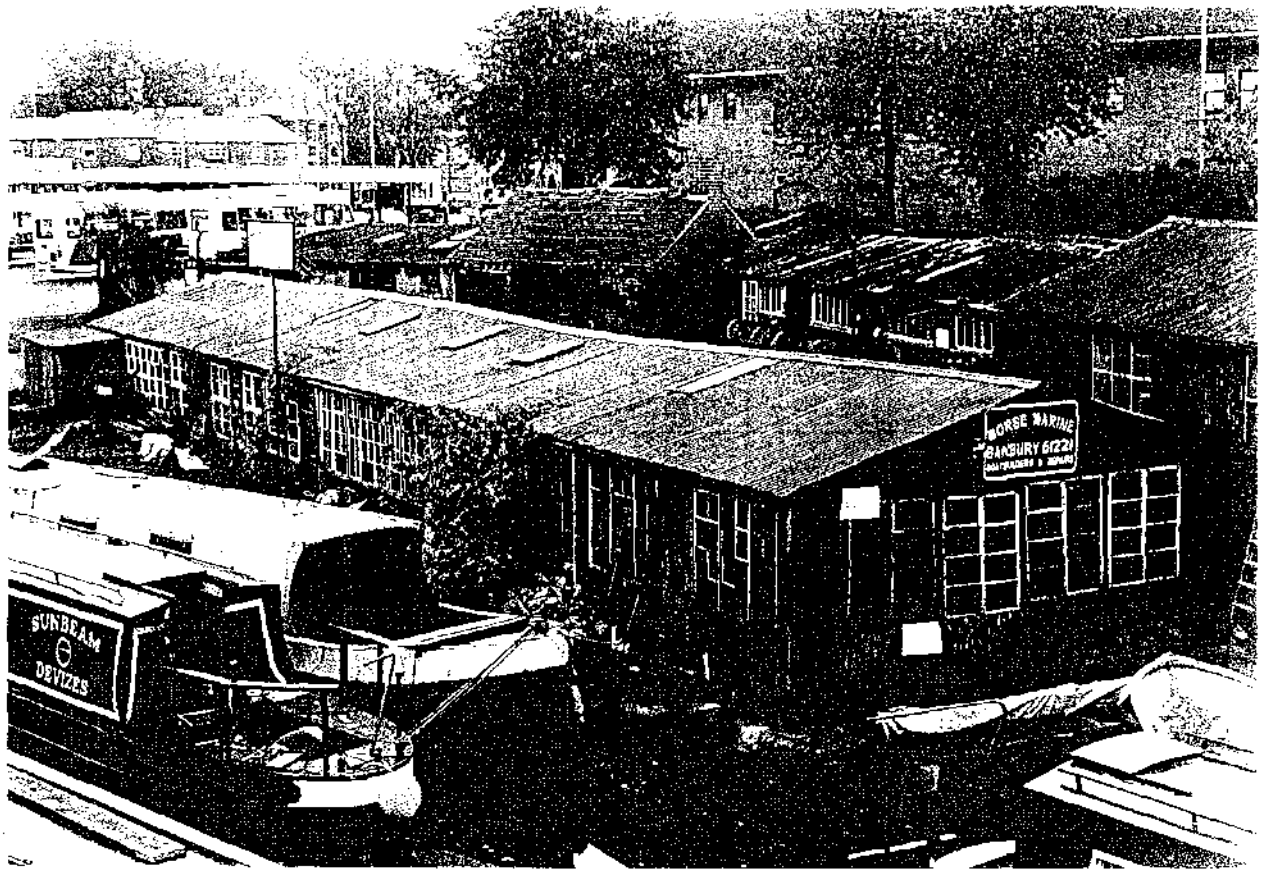

Plate 1

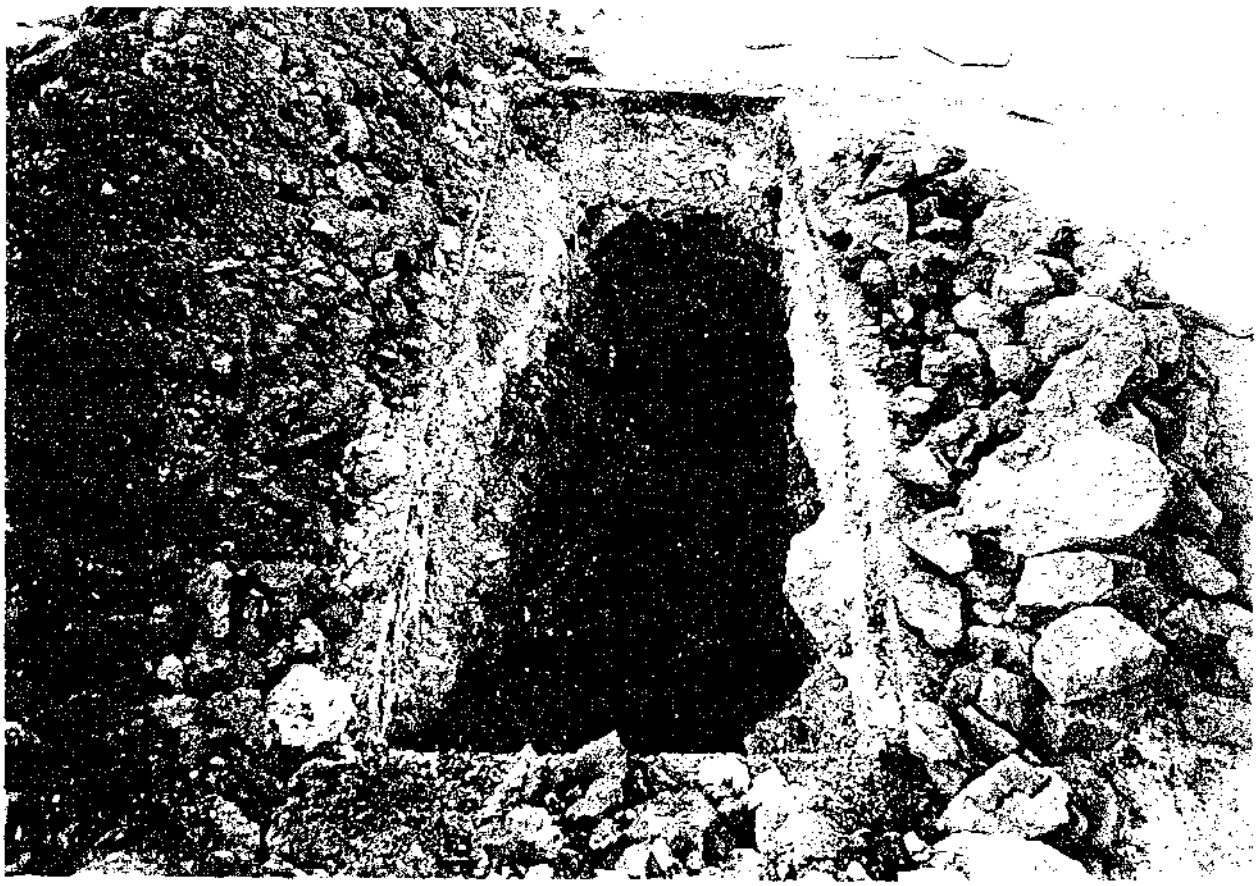

Plate 2