

A Medieval Cellar and
Medieval to Post-Medieval Pits
Post-holes and Walls at the YMCA
Nos 46-48 St Giles Street
Norwich



**Archaeological
Evaluation and Watching Brief**



May 2011

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the YMCA, Nos 46-48 St Giles Street, Norwich**

Archaeological Evaluation and Watching Brief

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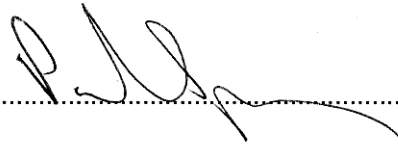
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Summary

An archaeological evaluation was conducted in early August and from the 9th-22nd November 2010 by Oxford Archaeology East at the YMCA site to the rear of Nos 46-48 St Giles Street, Norwich (TG 2265 0855). This was undertaken concurrently with a watching brief on ongoing demolition works. The work relates to the construction of a new building for the YMCA on the site of the former YMCA accommodation block and sports hall to the north of Bethel Street at the rear of the hostel fronting onto St Giles.

Five trenches, including two that were part of the watching brief, were excavated, the first of which (Trench 1) was located within the accommodation block whilst the building was still standing. This was abandoned for health and safety reasons and the evaluation recommenced once demolition of all superstructures was complete.

The area beneath the former sports hall was severely truncated whilst localised areas of disturbance and truncation were present beneath the accommodation block as a result of the presence of several massive concrete ground beams. Despite this, a stratigraphic sequence, divided into four phases, was revealed that spans the 12th to 18th centuries. A number of features and deposits were recorded that will significantly enhance current research into the post-Conquest development of the city, and will build on other recent work within the French Borough.

The discovery of an early cellar, indicated by a set of well-preserved masonry steps (Phase 1), is an uncommon find and provides important evidence for the 12th century urban expansion west of the market. Redevelopment of the site appears to have occurred in the medieval period (Phase 2, 13th-14th centuries), represented by levelling deposits and a robber cut in the north-eastern part of the site and quarrying/pit-digging close to the Bethel Street frontage. Phase 3 includes evidence for a 15th-century building represented by demolition material, including hand-made bricks and painted window glass, used to infill a well. This probably occurred in the 16th century, possibly following a fire given the presence of lumps of burnt wood and charcoal associated with the demolition material. This building may be contemporary with the undercroft beneath the frontage property and if so adds significantly to current understanding of the affluence of the occupants, who are likely to have been part of the merchant class. The post-medieval period (Phase 4) is represented by a number of wall foundations, pits, dumped deposits and extensive soil layers. This is consistent with cartographic evidence from the late 18th to late 19th centuries which indicates that much of the site was occupied by ranges/outhouses and a formal garden to the rear of the Nos 46-48 St Giles.

The artefactual remains from the site, although moderate in quantity, are on the whole fairly typical of a site of this date and type, being largely domestic in nature with some evidence of low-level industry in the form of ironworking in the vicinity. The small animal bone assemblage is dominated by the domestic mammals, along with bird and fish bones. Environmental samples, largely from medieval pit fills and a late medieval well, include charred remains of crops (including wheat, rye, oats and peas) and weed seeds.

1 INTRODUCTION

1.1 Location and scope of work

- 1.1.1 An archaeological evaluation and watching brief was conducted in early August and during November 2010 by Oxford Archaeology East on behalf of Lovell Partnerships Ltd at the rear of the YMCA hostel at Nos 46-48 St Giles Street Norwich (TG 2265 0855; Fig. 1). Nos 46 and 48 St Giles are both Grade II listed buildings. The redevelopment area, which forms an irregular triangle in shape, measures c.0.1ha in size and is located within the historic urban core and Norwich City Conservation area.
- 1.1.2 This archaeological evaluation was undertaken in accordance with a Brief issued by Ken Hamilton of Norfolk County Council's Historic Environment Service (reference CNF42387, Norwich City Council Planning Application No. 09/01367/F), supplemented by a Specification prepared by OA East. The evaluation, which was conducted concurrently with a watching brief on ongoing demolition works, was undertaken in advance of the proposed construction of a new YMCA building on the site of the former YMCA accommodation block and sports hall.
- 1.1.3 The work was designed to assist in defining the character and extent of any archaeological remains within the proposed redevelopment area, in accordance with the guidelines set out in *Planning Policy Statement 5: Planning for the Historic Environment* (Department for Communities and Local Government 2010). The results will enable decisions to be made by Norfolk Historic Environment Service, on behalf of the Local Planning Authority, with regard to the treatment of any archaeological remains found.
- 1.1.4 This report follows an Historic Building Investigation of the YMCA site (Underdown 2009) and an Interim Statement issued by OA East in late November 2010, which outlined the main results of the evaluation (Underdown 2010).
- 1.1.5 The site archive is currently held by OA East and will be deposited with the appropriate county stores in due course.

1.2 Geology and topography

- 1.2.1 The geology of the site comprises sand overlying chalk.
- 1.2.2 Located at the western end of Bethel Street, close to its junction with St Giles Street, the site slopes downwards from east-to-west, with the area of the former sports hall being 1.5m lower than that of the former accommodation block to the east (c.24m OD). Bethel Street forms the southern boundary and main access to the site, Nos 46-48 St Giles lie to the north, and St Giles Terrace and Rigby's Court flank the site to the east and west respectively.
- 1.2.3 The site is centrally-located within the historic walled medieval town of Norwich, being just west of the provision market and St Peter Mancroft's church and within the area known as the French Borough, which was particularly reserved for the occupation of Norman settlers after the Conquest. St Giles church, which is likely to have been rebuilt on the site of an earlier church, is located c.70m to the north-west.
- 1.2.4 Two modern YMCA buildings, comprising a former sports hall and accommodation block with substantial foundations, were demolished prior to the main phase of evaluation.

1.3 Archaeological and historical background (Fig. 1)

- 1.3.1 The part of Norwich in which the site is situated is adjacent to known areas of Late Saxon settlement located to the north and west, although it is likely that the proposed redevelopment area was probably open or semi-open land at the margin of the Saxon town.
- 1.3.2 Settlement of the area began soon after the Norman Conquest when the French Borough ('Franci de Norwic' in Domesday Book) was created here, stretching west from the castle. As a result Norwich's economic focus was transferred from the old Saxon market at Tombland to the new market (on the site of the present market) west of the castle. The two streets that extended west from the market, Lower Newport and Upper Newport, are the present St Giles and Bethel Streets. These thoroughfares meet west of the site, where the 15th-century church of St Giles is located (NHER 560).
- 1.3.3 The Norfolk Historic Environment Record (NHER) lists many archaeological investigations in Norwich, several of which have taken place in close proximity to the subject site. A Late Saxon ditch was uncovered at Nos 26-32 St Giles Street (NHER 26504) during evaluation in 1999; other features included medieval ditches, pits and post-holes spanning the 12th-16th centuries that defined a boundary between properties. Medieval and post-medieval features, comprising pits, cess pits and a number of wells, have also been found at Nos 23-7 (NHER 127) and 34 St Giles Street (NHER 193), the latter just 100m to the east of the current site.
- 1.3.4 Of particular significance to understanding the later medieval development of the area is the presence of a 15th century brick undercroft discovered beneath No. 46 St Giles Street (NHER 26191). The remains of two and a half bays of a brick 15th-century undercroft were also recorded beneath No.43 St Giles on the opposite side of the road (NHER 623). This was thought to have once have been part of the God's House hospital site, which was founded in 1292 but rebuilt in 1446-1472, although this is also recorded as being located some distance to the north, adjacent to St Margaret Westwick (NHER 630). Part of a brick cellar or undercroft belonging to an earlier building (NHER 14) was revealed on the current site in 1961 during foundation digging for the YMCA extension; a number of late medieval pottery sherds were also recovered.
- 1.3.5 Several listed buildings and/or buildings of architectural interest are also located in the vicinity, many of which line the St Giles Street frontage. Some, including a 16th-century former public house, are also situated to the south of the site on Bethel Street.

Historic Map Evidence (Underdown 2009; Frostick 2002)

- 1.3.6 Cunningham's birds-eye view of Norwich of 1588 shows the area highly built-up with buildings lining both sides of St Giles and Bethel Streets creating almost continuous frontages. There is, however, east of a north-south range of buildings, a small open area at the west end of, and north of, Bethel Street where the land narrows towards the junction with St Giles. The St Giles frontage of the YMCA site was clearly built on and the open area is in the vicinity of the proposed development area but even if the plan is reliable it is not possible to align it accurately with the present layout.
- 1.3.7 Cleer's plan of 1696 is very schematic but clearly shows, like Cunningham, a break in the houses on the north side at the east end of Bethel Street and from the position of other nearby streets it does appear that this is in the area of the site. At this time Bethel Street was called Committee Street after the Committee House, which stood further east on the south side of the street, where the county arms and armour were stored during the Civil War period. That building was destroyed in an explosion known as 'The

Great Blowe' which killed about 40 people during disturbances in 1648. The Bethel Hospital for the care of 'distressed lunatics', from which the street subsequently took its name, was founded on the site of the Committee House in 1713 by Mary Chapman.

- 1.3.8 Hochstetter's map of 1789 shows an enclosed garden on the proposed development site, behind the house on St Giles. The south-west corner of the garden extends to Bethel Street but south-east of this there is a building on Bethel Street adjoining the development along the street continuing west of the site.
- 1.3.9 Three years after Hochstetter's map, the house on St Giles, formerly sometime property of the Stracey family, was rebuilt by the Rev. Robert Parr. Later the house was the home of George Warren Watts Firth FRCS surgeon to the Norfolk and Norwich Hospital and magistrate, who died in 1878.
- 1.3.10 The Ordnance Survey First Edition 1:500 Town Plan published in 1875 shows the house as rebuilt. The general layout of the site had, however, changed little since Hochstetter, a century earlier, with the enclosed formal garden to the rear extending to Bethel Street on the west and a building on Bethel Street at the south-east corner of the site.

Norwich YMCA (based on Barringer and Larter 2007)

- 1.3.11 The Norwich YMCA was formed in 1856 and in 1886 Jeremiah James Colman purchased the house on St Giles for the use of the association; he later sold the property to them in 1888. Also in the latter year a gymnasium was built at the rear of the site. Prior to around 1900 the address of the main building had been No. 65 St Giles Broad Street and was later changed to No. 48 St Giles.
- 1.3.12 An appeal launched in 1914 to fund hostel accommodation at the Norwich YMCA was postponed on the outbreak of war. During the Great War YMCA premises were used and occupied by troops. A photograph of c.1916 (Barringer and Larter 2007, pl. 31) shows troops on convalescent leave in the garden at the rear of No. 48. The photograph clearly shows that the gymnasium of 1888 was on the east side of the property and the rest of the site behind No. 48 was open garden.
- 1.3.13 Number 50 St Giles Street was purchased in 1919 and opened as a hostel for young men coming to Norwich to work.
- 1.3.14 A new extension consisting of a suite of meeting rooms was constructed and opened at the rear of the St Giles site in 1927. A photograph of c.1936 shows this extension on the west side of the site, the gymnasium still on the east and the central area still an open garden. Another photograph perhaps from a few years later shows the same buildings but with the addition of a wooden shed in the central garden area (Barringer and Larter 2007, pls. 34 & 54).
- 1.3.15 Funds raised by a centenary appeal in 1956 were used to add a second storey to the 1927 extension (Barringer and Larter 2007, pl. 55). A third storey and attic were added in the later 20th century and this building was known as the accommodation block. In 1961 the Victorian Gymnasium was demolished and the new sports hall constructed on the site (Barringer and Larter, pls. 64 & 65). Number 52 St Giles was purchased in 1966 as additional accommodation but was sold in 1980.
- 1.3.16 Number 46 St Giles was purchased by the YMCA from Mr George Bush in 1968. The house had previously been purchased by Edward Bush from the estate of Dr Charles Andrews in 1938.

- 1.3.17 Recently a new YMCA hostel has opened on another site in Norwich. The sports hall and accommodation block have been demolished to make way for a new hostel with 40 'move-on' places.

1.4 Acknowledgments

- 1.4.1 Thanks are due to David Betts of Lovell, the site manager, and other Lovell's staff for their help and co-operation with the site work and also to Anglian Demolition who undertook the machining of the evaluation trenches. The site was supervised by Simon Underdown with assistance from Mick Boyle and Rachel Clarke, who also undertook the site survey and provided operational and administrative support. Thanks are due to the various specialists involved in the project: Carole Fletcher and Paul Spoerry, Rob Atkins, Rachel Fosberry, Chris Faine and Pete Boardman; the illustrations were produced by Gillian Greer and Séverine Bézie. Thanks are due to Liz Popescu for editing this report. The site was managed by Paul Spoerry and was monitored by Dr Ken Hamilton of NCC Historic Environment Service.

2 AIMS AND METHODOLOGY

2.1 Aims

- 2.1.1 The objective of this evaluation and watching brief was to determine as far as reasonably possible the presence/absence, location, nature, extent, date, quality, condition and significance of any surviving archaeological deposits within the development area.
- 2.1.2 The Specification (Connor 2010) indicated that the evaluation might provide evidence of medieval urban and industrial remains.

2.2 Methodology

- 2.2.1 The Brief required the excavation of three 4m x 4m trenches: one at either end of the accommodation block and one within the footprint of the sports hall with watching brief on the removal of the foundation slab for the latter and associated demolition works (Fig. 2).
- 2.2.2 Initially it was decided to excavate the accommodation block trenches within the standing building (prior to demolition). Trench 1, at the north end of the building, was begun but not fully-excavated as various logistical issues, and the fact that the trench at the south end could not be excavated due to the presence of large concrete ground beams, meant that the work was postponed until after demolition.
- 2.2.3 Once demolition was largely complete a further three trenches were excavated: two within the area of the former accommodation block and one in the area of the sports hall. A c.20m-long section (Trench 2) was also created by the contractors in preparation for the removal of the main ground beam supporting the west wall of the accommodation block. A small trench (Trench 5) was also created by the removal of a concrete foundation block below the sports hall.
- 2.2.4 The eastern part of the site (after demolition of the accommodation block and removal of the floors etc.) stood at c.23.8m OD, the west part of the site (after demolition of the sports hall) was approximately 1.5m lower.
- 2.2.5 Machine-excavation was carried out under constant archaeological supervision with a tracked 360° type excavator using a toothless ditching bucket.
- 2.2.6 The site survey was carried out using a Leica TCR 705 Total Station.
- 2.2.7 Spoil, exposed surfaces and features were scanned with a metal detector. All metal-detected and hand-collected finds were retained for inspection, other than those which were obviously modern.
- 2.2.8 All archaeological features and deposits were recorded using OA East's *pro-forma* sheets. Trench locations, plans and sections were recorded at appropriate scales and colour and monochrome photographs were taken of all relevant features and deposits.
- 2.2.9 Environmental samples were taken from two pit fills in Trench 3, one of the backfills of a well in Trench 2a and a fill of a pit in Trench 5. These were processed and the results are set out in Appendix B2 of this report.
- 2.2.10 Site conditions were generally cold and wet, hampered by noise and vibration caused by the demolition, breaking-up and removal of massive reinforced concrete footings, which was undertaken in close proximity.

3 RESULTS

3.1 Introduction

3.1.1 The fieldwork results are presented below in trench and phase order; a context list with spot-dating is included as Appendix A. Four main phases have been identified: Phase 1 (early medieval), Phase 2 (medieval), Phase 3 (medieval/early post-medieval) and Phase 4 (post-medieval); these have been sub-divided where appropriate.

3.2 Trench 1 (Figs 2, 3 and 8; Plate 1)

3.2.1 This trench measured 4m x 4m and was located in the north-west corner of the accommodation block whilst it was still standing; it was subsequently abandoned before investigation was complete due to health and safety considerations. The trench was excavated to a depth of 0.90m below the floor surface of the accommodation block and therefore did not reach the medieval levels recorded elsewhere. The concrete floor was 0.2m thick and the trench thus went to about 0.7m below the current surface; its base was at about 0.3m above the base of Trench 2a which partly overlapped Trench 1 (see below). The proximity of standing walls made the insertion of shoring impractical which, combined with other safety issues, hampered the investigation of features revealed in the base of the trench.

3.2.2 Most of the deposits and features exposed in the trench are likely to be late medieval or post-medieval (Phase 4), but unfortunately no dating evidence was recovered.

Phase 3: late medieval well/pit, wall foundation and associated features/deposits

3.2.3 The earliest deposit identified in the exposed sequence was an extensive layer of light yellowish brown silty sand with occasional charcoal flecks (8), within which a dump of degraded chalk was noted to the north of wall 1 (see below). This layer may equate to deposit 25 recorded in section in Trench 2a (see below), possibly a late medieval or post-medieval make-up or levelling layer. A similar deposit (13) was recorded on the south-side of wall 1 and may have been a continuation of layer 8; layer (9) to the north of **12** may also be part of this deposit. Overlying layer 8, and only revealed in the south-facing section, was a thick (0.4m) deposit of light brown sandy silt (160) with moderate pebble and brick/tile fragments. This could have been a dumped deposit or possibly the fill of a large feature that had been truncated to the east and west by later pits.

3.2.4 Located against the western edge of the trench was a wide-mouthed cut (**12**), the upper part of which was recorded in section as being in excess of 2.5m wide. A thin layer of soft black powdery material (7) was observed in the side of the cut and may be organic in origin, possibly indicating some form of lining. Above this was a 0.1m-thick deposit of mottled light brown sandy silt with fragments of soft fired clay or brick (6) that tipped down on both sides of the cut. The profile of these deposits indicates that this feature may have been the upper part of a large well that was narrowing to form an almost vertical shaft below the limit of excavation reached at this point. This feature appeared to be in the same location as well **73** excavated in Trench 2a (see below).

3.2.5 This feature appeared to have been cut to the north by a ?pit (**166**, in section only) containing a clean yellow gravelly sand (10). Possibly cutting the southern edge of pit/well **12** and truncating layer 8 was the base of an east-west wall (1), revealed in the southern half of the trench. Constructed from flint-and-brick rubble bonded with soft cream-coloured lime mortar, the wall extended for about 3m east from the west edge of the trench. It measured c.0.45m wide and was constructed on a thin rammed-chalk

footing. A part/broken brick recovered from the wall is hand-made and datable to the 16th century, although it was probably reused as mortar was found to be adhering to all sides (Appendix A4). This wall physically overlay the infilled ?early medieval cellar steps recorded in Trench 2a (see below).

- 3.2.6 A number of pits cut layer 8, which are likely to have been cut from higher up the sequence but were recorded in plan as truncating the layer. Pit **16**, partially-exposed in the north-east corner of the trench, measured c.2m wide and may have been oval in plan. The upper fill (17) comprised a loose dark brown sandy silt with occasional flecks of charcoal and CBM. A smaller pit (**14**) measuring c.0.6m across was also recorded in the south-west corner of the trench, to the south of wall 1, and contained a loose mid-brown sandy silt fill (15).

Phase 4: post-medieval levelling, pits and garden soil

- 3.2.7 Overlying the demolished/truncated wall 1 and partly infilling well/pit **12** was a thick layer of light brown sandy silt (4), which contained occasional small pebbles, frequent chalk flecks and small fragments of brick/tile. This is likely to be another levelling layer or garden soil (possibly equivalent to layer 26 in Trench 2a), and was truncated by a shallow cut (**11**, in section only) filled by a single sand silt deposit (5) with frequent brick and chalk fragments and brick and mortar dust. The cut was a maximum of c.0.15m deep, with a steep side to the south (where exposed) and a relatively flat base. It extended into the trench from the northern edge for c.0.8m and was recorded as being c.2.3m wide in the south-facing section.
- 3.2.8 The shallow feature (**11**) was in turn truncated by a large, steep-sided pit (**18**), that was at least 1.6m wide and 0.5m deep, although only the upper part of the feature was exposed. Four fills were recorded (all assigned to context 19), the earliest of which comprised a mid-brown sandy silt with occasional pebbles and frequent chalk pieces. This was sealed by a 0.08m-thick deposit of chalk overlain by a 0.1m-thick orange sand and a dark brown sandy silt, which was the uppermost fill recorded.
- 3.2.9 Deposit 5 (fill of **11**) was sealed by a thin layer (3) of light yellowish brown sandy silt with frequent chalk flecks and occasional small brick and tile fragments, which was mainly present in the main east-facing section. Above this was a c.0.15m-thick mid to dark brown sandy silt layer (2), which extended across the trench. This was probably a garden soil and was the last deposit recorded below the concrete floor for the former accommodation block.

3.3 Trench 2 (Figs 2 and 8)

- 3.3.1 Trench 2 was excavated by the demolition contractors along the east side of the massive reinforced concrete footings that supported the west wall of the accommodation block, in order to facilitate removal of the footings. The trench was c.20m long and 1.2m wide and extended from the north end of the accommodation block to an east-west concrete ground beam near the south end of the block (a continuation of the trench south of that beam became Trench 3).
- 3.3.2 The trench was excavated to an average depth of 1m below the existing ground level (after removal of the accommodation block floor). The west-facing section (Fig. 8 section 2) of the trench was recorded and shows a number of features and deposits that are likely to have been largely post-medieval in date. Unfortunately none of the deposits recorded within the section produced any datable material or other finds.

Phase 3a: late medieval pits, dumps and levelling layers

- 3.3.3 The earliest deposits recorded in the section were located at the southern (45 and 46) and the northern (24) ends of the trench respectively. Too little of these deposits was exposed to allow full description or interpretation, although it is likely that they are either pit fills or dumped deposits. A deposit (33) in excess of c.0.35m thick was recorded towards the centre of the trench and may have been equivalent to deposit 45 to the south as both were described as containing lenses of redeposited orange sand. Layer 33 was a pale orangey brown sandy clay with occasional patches of chalk flecking and may have been the fill of a large feature as it was not recorded to the north of pit **163**, unless it was part of layer 25.
- 3.3.4 Deposit 25 was a thick layer or dump that was recorded extending for over 6m in the northern part of the trench and may be equivalent to other dumped deposits/levelling layers including 8 in Trench 1 and possibly 24, 33 and 45 described above. The layer, which was in excess of 0.7m thick, comprised a light to mid-brown sandy silt with occasional chalk flecks/lumps, rare charcoal and mortar flecks. It could conceivably have been the dumped fill in a large cut or depression as there was a fairly distinct horizon with context 24 at the northern end of the trench; it was cut by pit **162** to the south (see below), but may continue as 33 to the south of pit **163**.
- 3.3.5 Dumps 46 and 33 towards the southern end of the trench were truncated by a large cut (**164**) that measured c.2.6m across; only the upper c.0.6m part of the feature was exposed in the section. Two upper fills were recorded (43 and 44), comprising a mid brown silty sand overlain by a light brown clay sand silt with occasional chalk lumps and flecks, lenses of peagrit and moderate gravel inclusions. Approximately 2m to the north of **164** was another large pit (**163**), of which only the southern edge survived, filled by a single pale creamy mortar-rich deposit with rare tile fragments, charcoal lenses and flint pebbles (30). This was truncated to the north by another large, steep-sided pit (**162**) that measured c.2.4m across. The upper fill of this feature (29) was similar to other deposits encountered, comprising a soft pale brown sandy silt with occasional chalk and mortar flecks and pieces, and lenses of redeposited natural sand.
- 3.3.6 Two deposits comprising a pale greenish-brown silty sand (23) overlain by bright orange coarse sand (20) were recorded at the very northern edge of the trench. The tipping profiles might indicate that they are the fills of a feature, although too little was exposed to be certain.

Phase 3b: late medieval/early post-medieval pits

- 3.3.7 Three smaller probable pits cut the upper infills of the Phase 3a pits **164** **163** and **162** towards the centre of the trench, suggesting later, similar activity. The southernmost pit (**34**), measured 1.2m across and 0.5m deep with moderately steep sides and a fairly flat base; it contained a single pale brown silty clay fill. Approximately 0.7m to the north of this was a shallow (0.2m) pit (**32**) measuring 0.6m wide with a concave profile and containing a single mid to dark brown silty sand fill with rare mortar and tile fragments. A further 0.7m to the north of this was another pit (**161**) which was 1.2m wide and 0.3m deep with a concave profile. The single fill comprised a mixed deposit of light brown silty sand with occasional mortar, chalk and tile fragments/flecks, and occasional pebbles and charcoal flecks (28). A further deposit that might have been the fill of a truncated pit was also recorded at the very northern edge of the trench (22).

Phase 4: post-medieval garden soil

- 3.3.8 The pits and deposits were sealed by a former garden soil (26) ranging from 0.2-0.4m thick that is likely to be the same as layer 2 in Trench 1 (see above). This was cut by a

number of small features (**36**, **38** and **40**) and dumps (22 and 27) that are likely to have been relatively modern in date. A dump of red brick, tile and mortar (21) was also present to the north of Trench 1; this was c.0.8m thick and probably represents recent demolition material from a former building on the site.

3.4 Trench 2a (Figs 2, 4 and 8; Plates 2 and 3)

3.4.1 Trench 2a was an enlargement of Trench 2, widened to the west to create a trench approximately 4.5m north-south x 3m east-west. This was placed to evaluate the survival of archaeological deposits at the north end of the accommodation block that were not fully investigated by Trench 1.

3.4.2 The trench extended to 1m in depth; the eastern half overlapped the western side of Trench 1 but was 0.3 - 0.4m deeper. The base of the trench (and natural sand) was at c.22.85m OD. The site plan and the west-facing section (Fig. 2 and Fig. 8, sections 2 and 7) of the trench shows the horizontal and vertical relationships between the trenches. There were no sections showing stratigraphic relationships on the north, south or west sides of the trench due to the construction and subsequent demolition of the concrete footings.

Phase 1a: ?quarry pit

3.4.3 Natural orange sand occurred at the base of the trench along the west side; the earliest features cut into this were a pit (**96**) to the north and a wall (86) to the south. Pit **96** was truncated by a later well and no datable finds were recovered making interpretation tenuous but in section the pit appeared to be straight-sided and quite deep and may have been a quarry pit. It probably predated the wall and steps to the south but could be later.

Phase 1b: early medieval masonry structure (Plates 2 and 3)

3.4.4 Wall 86 was exposed for just under 2m in length east-to-west and returned north at its west end for 0.8m and was then cut by a robber trench (**81**). The wall was composed of flints and lime mortar and was 0.45-0.50m wide. A later phase of flint masonry (87) with a more yellow sandy lime mortar, measuring 0.4m wide, was built against the east face of 86.

3.4.5 Abutting the east side of wall 87 and descending to the east were a series of steps; three were exposed for 0.7m within a sondage but they clearly extended beyond either side of the sondage and continued below the excavated level (22.05m OD). The steps had an average height of 0.25m and depth/tread of c.0.4m. They were composed of flint rubble and lime mortar and each had on its upper face an additional skim of mortar (85) and over that a chalk surface (84). If the steps continued eastwards at the same dimensions they would reach a depth of c.2m below the base of the trench (at approximately 1.6m east of the east edge of the trench).

Phase 2: medieval destruction, robbing and infilling of structure

3.4.6 The steps, which presumably originally led to a cellar or undercroft, were infilled by a series of horizontal layers (91-94). These comprised orange and grey brown sand/silt deposits (91 and 92) overlying a bright orange coarse sand (93) and a compact dump of clay silt containing large mortar fragments and chalk lumps (94). Small quantities of pottery were recovered from layers 91 and 94, datable to the 11th-14th centuries and late 12th to 13th century respectively.

- 3.4.7 The uppermost layer (91) was cut by an undated robber trench/pit (**81**) which probably robbed-out an eastward return of the north end of the wall. The robber trench, which measured c.0.75m x 0.85m in plan and was c.0.3m deep, was overlain by a soil dump (88), which was cut to the north by a pit or possible well (**73**). A sub-circular post-hole (**89**), which measured 0.45m across and 0.17m deep, cut wall 87 and could represent a later structure; no finds were recovered.
- 3.4.8 Dump 88 was recorded in plan to the south of the well and may also be part of the cellar infill/levelling. This layer produced pottery of a similar date (late 11th-13th century). The robber trench **81** also cut the fill (97) of pit **96** to the west, and although little was left of this feature on this side, it may have extended beyond the well to the east with deposit 98 being a remnant fill of it.

Phase 3: later medieval well (Fig. 8, Section 5; Plate 2)

- 3.4.9 The possible well (**73**) was sub-circular in plan, measuring c.2.2m x 1.6m across, although it was truncated by modern features to the north-east. The south-west quadrant was excavated to a depth of 1m. At this point the cut had near vertical sides; a chalk lining surviving on the south (150) and what appeared to be a flint and brick rubble masonry lining or associated structure was present on the north side (95).
- 3.4.10 The upper excavated fills (74-80 and 145-149) contained moderate quantities of demolition rubble, including hand-made bricks, tiles, mortar fragments (some with lime-wash), a nail, and charcoal lumps, presumably used to infill the well once it had gone out of use. This feature was augured and found to continue for at least 2.5m below the base of the excavated section, which indicates that it was at least 3.5m deep from the base of the trench. It seems likely that the upper part of this well was recorded in Trench 1 as feature **12**; in section this feature cut layer 8 which was probably equivalent to layer 25 recorded in the main Trench 2 section (Fig. 8, Section 2).
- 3.4.11 Two pieces of painted glass of probable 15th-century date were also recovered. The latest piece of pottery found in fill 77 is local medieval unglazed ware, probably dating to 1500-1600. Brick fragments recovered from the upper fills date to c.1450-1500 and could therefore be contemporary with the painted glass. This feature also produced the largest assemblage of animal and bird bone from the site, including remains of cattle, sheep/goat, pig, horse, rabbit, fowl and goose.

Phase 4: post-medieval garden soil and modern intrusions

- 3.4.12 Deposit 25, recorded in section only, physically lay above dump 88 and below the former garden soil (see 3.3.4 above) and probably represented late-medieval/early post-medieval levelling; it was physically sealed beneath the former garden soil (26). A number of modern concrete and brick-filled pits also truncated the upper part of well 74 and deposits to the south probably related to the construction of the accommodation block or its subsequent demolition.

3.5 Trench 3 (Figs 2, 5 and 8; Plates 4 and 5)

- 3.5.1 This trench, which measured c.6m long by c.2m wide, was located in the south-west corner of the former accommodation block and was effectively an enlargement of Trench 2 (see 3.3 above). The western and southern edges of the trench consisted of reinforced concrete. The trench was c.0.8-9m deep and at this depth natural orange sand was revealed (c.23m OD) in the north-western part of the trench; elsewhere it was truncated by features. A concrete pad below the main concrete footings extended 0.5m

into the west side of the trench. The top of the trench on the east side was at 23.93m OD.

- 3.5.2 No demonstrably early medieval (Phase 1) features or deposits were identified in this trench.

Phase 2: medieval quarry and rubbish pits (Plates 4 and 5)

- 3.5.3 Archaeological remains in this trench consisted largely of a series of medieval pits. Possibly the earliest of these was a large probable quarry pit (**67**) of which the northern edge was seen in a sondage near the south end of the trench. The pale brown sandy silt fill (68) extended c.2m south to the edge of the trench and was truncated by a later pit in the west-facing section at 0.5m below ground level; it extended to the base of the sondage at 1.3m below ground level.
- 3.5.4 Medieval pottery was recovered from fill 68 and includes the neck of an local medieval unglazed ware smoker; the deposit probably dates to the mid- to late-14th century or later; a late 15th-century brick fragment may have been intrusive. A small quantity of fish bone and a cat bone were also present. Augering showed that the feature continued for another 0.45m below the base of the sondage, reaching 22.20m OD. The upper parts of pit **67** were truncated in the southern 1.3m of the trench to a depth of 0.8m by a cut made during the current development to insert a new concrete ground beam.
- 3.5.5 Pit **67** was cut by a shallow remnant of a pit (**65**), of which little remained due to the presence of the concrete block.
- 3.5.6 At the northern end of the trench, deposit 70 (a remnant of fill or layer overlying natural) was cut by a pit (**53**), which was only partly-exposed but measured at least 1m across and c.0.75m deep. The upper/main fill (59) comprised a mid-brown sand silt with rare chalk and charcoal flecks overlying a thinner primary deposit of pale brown clay silt with few inclusions other than a small lump of mortar. The only find recovered from this feature was from the lowest of the two fills (60) and comprised an undiagnostic fragment of tile.

Phase 3: late medieval/early post-medieval pits and layers (Plates 4 and 5)

- 3.5.7 Pit **53** was cut to the east by pit **52**, which measured more than 2.8m long on its north-south axis and 0.8m wide. It extended from 0.3m below the current ground level to 0.4m below the base of the trench: a total depth of c.0.95m. Fill 57 contained medieval pottery of 11th-14th century date but also a piece Glazed Red Earthenware which, if not intrusive, gives a probable 16th-century or later date to the feature. The presence of two part-bricks of 16th century date in this fill indicate that it belongs in this later phase. A small quantity of fish bone was also recovered. This lowest fill also produced a small assemblage of metalworking debris, including slag, iron pan and hammerscale.
- 3.5.8 A large pit measuring at least 2m wide and c.0.9m deep (**50**) was recorded above and slightly truncating Phase 2 pit **67** at the southern edge of the trench. This pit was steep-sided and flat-based in section, suggesting that it might have had a specific function. Its single grey ashy fill (51) contained a piece of Grimston jug dating from the 12th-14th centuries in addition to an iron rotary key of medieval to post-medieval date (SF 4) and brick probably dating to the 15th century; a small amount of animal and fishbone was also recovered.
- 3.5.9 Pit **50** also truncated (in section) a possible layer/dump (58) that could be the fill of a large feature or possibly the continuation of a levelling layer represented by deposits 25

and 45/46 recorded in Trench 2 to the immediate north. Deposit 58 sealed pit **52** to the north and was cut by a small truncated pit (**61**), which contained an orange clay fill. This pit also truncated the upper part of pit **52** and was in turn cut by a pit (**64**) with a concave profile which measured c.0.6m wide and 0.4m deep; it contained a single fill of mid-brown silt sand with moderate rounded flint cobbles and mortar flecks. Both pits were largely recorded in section only and produced no finds.

Phase 4: post-medieval garden soil

- 3.5.10 The Phase 3 features were overlain by a 0.3m-thick layer (69) comprising a dark grey silt loam with occasional chalk, mortar lumps/flecks, and flint cobbles. This is likely to have been a post-medieval garden soil (equivalent to 26 in Trench 2) observed across much of the site.

3.6 Trench 4 (and walls to the east) (Figs 2, 6 and 8; Plate 6)

- 3.6.1 Trench 4 measured 4m x 4m and was located in the south-west corner of the site in the area of the former sports hall. Ground level in this area, after removal of the sports hall floor slab and over-site levelling deposits, was approximately 22.20mOD, significantly lower than the eastern part of the site. This trench was essentially just a cleaned area of the site with no edge sections as truncated archaeological features cutting natural deposits were revealed immediately below the 1960's floor and levelling deposits.
- 3.6.2 The natural was a coarse orange sand visible in the base of the trench on its east side; this was overlain to the west by a 'dirty' brown silty sand (144) that was probably a remnant natural/subsoil interface. The natural dipped down to the west where it was recorded at 21.75m OD, c.0.30m lower than on the east side of the trench.

Phase 1 / 2: medieval post-hole structures (Plate 6)

- 3.6.3 Three post-holes (**106**, **108**, **112**) and a small feature that may have been a pit or post hole (**104**), were excavated. None were fully-exposed, although most appeared to be over 0.5m wide. Post-holes **106** and **108** survived to a depth of 0.25m and 0.30m respectively; **104** was 0.10m deep and the base of **112** was recorded at 21.72m OD.
- 3.6.4 Three other possible post-holes (**127**, **128** and **130**), all only partly-exposed, were also noted in plan but not excavated. Of all these features only the fill of **106** (107) contained datable material comprising local medieval unglazed ware (c.11th-13th centuries). One of these (**127**, fill 126) appeared to have cut an earlier mid-orange brown clay deposit (124); too little of this was exposed to ascertain whether it was a layer or the fill of a feature.

Phase 3: late medieval/early post-medieval demolition/levelling

- 3.6.5 Post-hole **112** was cut by **114**, a possible levelling cut on the west side of the trench, which also cut a deposit 117 in the north-west corner. One fill of this feature (116) consisted largely of old lime mortar from demolition of masonry. No datable finds were recovered from this feature, which probably represents post-medieval activity; it was overlain by another deposit (120) that was in turn cut by Phase 4 foundation cut **101** for wall 100.

Phase 4a: post-medieval culvert

- 3.6.6 The base of NNE/SSW-aligned post-medieval brick culvert (102; foundation cut **103**), consisting of unmortared red bricks laid on edge in a radiating pattern (see Section 9,

Fig. 8), was seen in the northern part of the trench. This had been filled in with brick rubble (125) and was cut by a later wall construction (100).

Phase 4b: 18th-century brick foundations (Plate 6)

- 3.6.7 Two parallel north-south red brick and lime mortar wall footings (100 and 110, foundation cut **111**) were recorded within the trench and were planned continuing beyond it to the north; a third footing (49) was located c.3m east of 110, outside the trench. The widest foundation was 100 (c.0.8m) and the narrowest was 122 (c.0.1m). The latter was a short stub of wall projecting westwards from, and perpendicular to, 100 that may represent an earlier structure as it was cut by the foundation trench (**101**) for the wall. The scar of wall 100 can just be seen in the existing rear wall of No. 50 (Plate 6, top). A dump of brick and mortar fragments (123) was recorded against wall stub 121 and may relate to its demolition.
- 3.6.8 A fourth north-south linear brick structure (48) was revealed c.1m east of 49; this was much-damaged, presumably during levelling for construction of the sports hall. It was well-constructed and measured about a metre wide and may have been a wall but could also possibly have been the top of another culvert or drain.
- 3.6.9 Deposit 121, a dark brown ashy clay, sealed the earlier features on the western side of the trench. This was described as possibly overlying the wall footings and rubble dump 123, suggesting that it was probably 19th century or later in date.

3.7 Trench 5 (Figs 7 and 8; Plate 7)

- 3.7.1 Trench 5 was a small, irregular pit measuring c.1.5m x 2.5m and 1m deep, excavated by machine to the north-east of Trench 4 in the western (former sports hall) area of the site. On the eastern side the top of the trench was at 22.40m OD. The trench was excavated by the demolition contractors adjacent to a concrete stanchion base in order to assess the base for removal.

Phase 1 / 2: medieval pit and post-hole

- 3.7.2 To the south and east the trench effectively cut a quadrant through a large sub-circular medieval pit (**132**). The pit had been previously truncated by construction of the sports hall (or earlier activity) and extended from the top of the trench to below the base, which was at 21.40mOD. The pit had several almost vertical fills on the south side but stratigraphically above these was the main fill (133), which produced a number of sherds of late medieval unglazed ware ware dating from the 12th to 13th century.
- 3.7.3 The pit possibly cut a north-south linear feature (not numbered) which is difficult to interpret because it appeared to be physically below natural deposits in section. The latter may be due to slumping or compression caused by the way the trench was machined or may have been redeposited during an earlier period. No datable material was recovered from the possible linear feature.
- 3.7.4 A post-hole (**139**), cut by a later feature (see below), was recorded in the east-facing trench section. This was cut into the natural sand and was 0.5m deep (below **155**, see below), the base being at c.21.60m OD. No datable material was recovered from the post-hole but the fill was similar to that of post-hole **106** in Trench 4 which produced medieval pottery and may be part of the same phase of activity.

Phase 4: post-medieval cut

- 3.7.5 The west side of the trench exposed (in section only) a vertical cut (**155**) containing fills between 0.3m-0.4m thick. The cut, which was flat-based, coincided with the side of the trench and was parallel to, and just east of, linear brick feature 48 (mentioned above) and may have possibly related to its construction. No datable material was recovered from the fills.

3.8 Standing early wall (Phase 3 / 4) (Plate 8)

- 3.8.1 Demolition of the accommodation block revealed, at the south end of its eastern side, two adjacent sections of earlier brick wall. These had become sandwiched between the accommodation block and the more recent building to the east, which was partly built onto these two earlier walls. The southern wall (unnumbered) was probably of 19th century date.
- 3.8.2 The northern wall (47) appeared to possibly be a late medieval or early post-medieval survival. This surviving remnant was c.1.5 wide and 0.5m thick and had been exposed to about 2.4m in height. The upper parts of the wall were demolished prior to the present works. The east face was hidden by the adjacent building, the lower west face being visible in a narrow gap between two concrete slab beams, built as part of the current works prior to the watching brief. The upper west face was further-exposed after removal by the main contractors of a later brick skin at the request of, and under monitoring, by Oxford Archaeology.
- 3.8.3 The west face comprised 38 courses of thin hand-made red bricks, mostly set in header bond, with occasional flints and bonded by a creamy white brittle lime mortar with frequent chalk flecks and inclusions. Part of a decorative moulded architectural ceramic fragment was also noted, suggesting re-use of material for the wall fabric. Brick samples from the wall indicate a 16th-century date, although the fragments are broken and there is mortar adhering to all sides indicating that they have been re-used.
- 3.8.4 The lowest part of the wall seen was at 24.05m OD, at this point a deposit of mortar was present to the west of the wall. It was not possible to be sure if this represented a footing, a floor level or later material abutting the wall face.
- 3.8.5 The wall was truncated at its north end by a reinforced concrete stanchion and if it previously continued further north, it had been truncated by the rest of the wall and footings of the accommodation block, but the lower elements of it may survive. It had a straight joint with the later wall to the south for most of its height which may indicate a former opening or may have been made in order to abut the wall, but lower down it continued south below that wall.
- 3.8.6 A black crust from pollution was noted on the west face, showing it had been external prior to construction of the accommodation block in the 1920s. The wall was on an old property boundary and may have been built originally as a boundary wall but could equally be part of a former building.

3.9 Finds Summary (Appendix B)

- 3.9.1 A moderate finds assemblage was recovered, mostly from the fills of pits, post-holes and a probable well and ranging from the Neolithic (a small, unstratified worked flint) to post-medieval in date. Registered or 'small finds' include two fragments of 15th-century painted window glass, an iron key, a copper alloy pin and a fragment of lava quern. The largest assemblage (by weight) is the CBM which includes several late medieval/early post-medieval brick fragments, two of which were from a standing wall. The small group

of pottery (57 sherds) is wholly domestic in character and ranges in date from the early medieval to post-medieval periods; no sherds post-dating the 16th century are present. Pottery forms include a possible smoker and part of a cooking pot with external sooting, indicating that food preparation was being undertaken in the vicinity. Most of the assemblage represents local production, although some imported late medieval wares are present. Other finds include a small quantity of ironworking slag and hammerscale, perhaps representing low-level metal working on or near the site.

3.10 Environmental Summary (Appendix C)

- 3.10.1 The small animal bone assemblage is dominated by the domestic mammals, with sheep/goat, cattle and pig being the most prevalent taxa; many of which show signs of butchery. Bird remains comprise butchered fowl and goose long bones; fish remains are numerous but fragmentary and include cod, thornback ray and possibly whiting.
- 3.10.2 Environmental samples, largely from medieval pit fills and a late medieval well, included charred remains of crops (including wheat, rye, oats and peas) and weed seeds; fish and small animal bones were present in the sample from the well.

4 DISCUSSION AND CONCLUSIONS

4.1 Phase 1: early medieval (?12th century)

- 4.1.1 Besides a small Neolithic flint, the earliest features and deposits identified by the evaluation relate to a probable cellar located in the north-east corner of the site in Trench 2a. Part of a small flight of steps constructed from flint and mortar was revealed leading eastwards from a remnant of flint wall foundation. No definitely contemporary features were identified although a possible quarry pit (unexcavated) located c.1m to the north-west and some of the post-holes identified in the area of the former sports hall to the west (trenches 4 and 5, see below) could date to this period. Although no dating evidence was recovered from the cellar structure itself at this stage, the demolition/levelling deposits infilling it contained medieval (late 12th to 13th century) pottery suggesting that this structure is relatively early, possibly relating to the post-Conquest colonisation of the part of Norwich known as the French Borough.
- 4.1.2 This area of Norwich had probably previously been open fields serving the Late Saxon/Anglo-Scandinavian town but after the Norman Conquest became part of the French Borough established, along with the castle, by Earl Ralph (Ayers 2009, 64). St Giles and Bethel Street were the main roads leading westwards from the large rectangular market place; St Giles church was probably founded at this time along with St Peter Mancroft and St Stephen. Few archaeological investigations had been undertaken in this area prior to 1999 when the Millennium Library excavation was carried out. This identified late 11th-century tenement plots in the main area, although evidence was also uncovered which suggested that by the 12th century the Bethel Street frontage had become more important. Rammed gravel foundations of substantial stone houses were revealed in this area, which may have been associated with a nearby limekiln (Ayers 2009, 65; 69).
- 4.1.3 Documentary research has indicated that there were at least 18 stone houses in Norwich, most of which are likely to refer to 12th- and 13th- century structures that were constructed around the Market Place, along the waterfront on King Street, on Tombland and along the waterfront north of the cathedral. Substantial remains of a stone building were discovered in 1981 during excavations at St Martin-at-Palace Plain and which are now preserved in the basement of the Magistrate's Court. This 12th-century building was constructed from flint rubble with limestone dressings and incorporated a partly-cellaried basement accessed by two doorways. Evidence for other 12th- and 13th-century stone buildings has been found at Dragon Hall and in its vicinity to the south-east of the castle (Ayers 2009, 69).
- 4.1.4 Remains of houses with rubble-flint foundations that presumably supported timber superstructures have been excavated nearby at Pottergate (where a number of cellars were also present) and St Benedict's Street, although these generally seem to be later medieval, 14th-16th century (Atkin *et al* 1985, 11-16; Clarke 2006). Examples of similar medieval structures appear to be less common although a two-storey flint rubble extension was recorded to the rear of a property at Botolph Street and a largely stone-built hall of 14th-century date was excavated at King Street (Ayers 2009, 100).
- 4.1.5 Although the masonry steps and associated structural remains uncovered by the current evaluation are not necessarily associated with a high-status stone building they provide good evidence for the westward extension and occupation of the French Borough along the St Giles Street frontage, probably in the 12th century. No definitely contemporary activity was identified in the southern part of the site (Trench 3),

suggesting that this part of the Bethel Street frontage may not have been developed in this period.

4.2 Phase 2: medieval (?13th-14th century)

- 4.2.1 The cellar structure represented by the masonry steps was infilled, probably during the 13th century although relatively little datable material was recovered. Evidence of robbing was also identified in the same Trench (2a), in addition to possible rebuilding represented by a single post-hole cut into the top of the demolished/levelled flint wall. This suggests some clearance and reorganisation of the easternmost plot in this period. The area to the south, towards Bethel Street, appears to have been quarried initially and then used for pit-digging, possibly for rubbish-disposal although relatively few finds were present.
- 4.2.2 A number of post-holes were recorded to the west, in trenches 4 and 5 in the area of the former sports hall, and indicate the presence of timber structures here. These features are not well-dated although a small quantity of 11th-13th century pottery was recovered suggesting that they are medieval, although they could conceivably be contemporary with the Phase 1 cellar. A pit containing 12th- to 13th-century pottery was also located to the east of the post-holes, perhaps indicating that this was a yard area.
- 4.2.3 This evidence complements that from nearby excavations adjacent to St Giles Street, such as NHER 26504, NHER 127 and NHER 193 where features including ditches, pits, post-holes, cess pits and a number of wells have been recorded, indicating that this area was fairly intensively occupied in this period.

4.3 Phase 3: late medieval (c.15th-16th century)

- 4.3.1 There appears to have been an upsurge in activity on the site in the later medieval period. Direct and indirect evidence of late medieval buildings and their demolition was revealed in the area of the former accommodation block (trenches 1 and 2a), with associated deposits and features identified to the south (trenches 2 and 3). Very few remains attributable to this phase were present in the western half of the site (trenches 4 and 5), presumably a result of the truncation/removal of these deposits during the construction of the sports hall in the 1960s.
- 4.3.2 The large well recorded in Trench 2a was infilled with demolition rubble including bricks, roof tiles, mortar/plaster, window glass and burnt wood/charcoal along with domestic rubbish comprising pottery, animal and fishbone. This suggests that there may have been some further clearance of the site (or at least the plot latterly occupied by the accommodation block) in the late medieval period. This probably occurred at some point in the 16th century, as no pottery or other finds post-dating 1600 were present, although the rubble appears to derive from a 15th-century building. Brick fragments recovered from the upper fills date to c.1450-1500 and appear to be contemporary with the 15th-century painted window glass also dumped in the well; all could potentially derive from a single demolished building of some status on or near the site.
- 4.3.3 There were clearly substantial buildings nearby in this period, represented by the flint wall foundation revealed in Trench 1, which is likely to be the remains of a rear extension or outbuilding associated with a property fronting onto St Giles Street to the north. The standing wall recorded at the eastern edge of the site contained 16th century brick and so could belong to this phase, although could equally be part of a post-medieval boundary wall (shown on historic maps of the site) reusing earlier material.

- 4.3.4 As with the previous phase, the area to the south of Trench 1 and 2a and towards the Bethel Street frontage appears to have been a yard characterised by pit-digging and make-up/levelling/dumping *etc.*
- 4.3.5 These features and deposits could be broadly contemporary with the 15th-century undercroft recorded beneath the YMCA and/or a similar and probably associated brick structure observed during foundation digging for the YMCA extension (sports hall) in 1961 (NHER14). The presence of painted glass and brick found in the disused well in Trench 2a is reminiscent of finds recovered at nearby Pottergate. Here deep cellars associated with houses thought to be occupied by comparatively affluent citizens in the later 15th century were investigated as part of the Norwich Survey (Atkin *et al* 1985; Ayers 2009, 124), and it is conceivable that the current site was occupied by families or individuals of similar prosperity.
- 4.3.6 Over 60 undercrofts built by the merchant class during the 15th century survive beneath later buildings across Norwich but most are concentrated within the four most wealthy parishes of the city. The presence of an undercroft beneath the YMCA indicates that this property was probably owned by a member of the city's expanding merchant population although clearly parts of the superstructure were demolished at some point in the 16th century. This clearance may conceivably have followed one of the great fires that swept through the city, the most devastating of which was in 1507 (Ayers 2009, 140).

4.4 Phase 4: post-medieval (17th-18th century)

- 4.4.1 From at least the 17th century there appears to have been a complete downturn in activity on the site, at least in the area beneath the former accommodation block (to the rear of No. 48). This is represented by the formation of a thick garden soil with a number of later pits and other features cut through it.
- 4.4.2 The area beneath the sports hall, however, included a brick culvert and later brick wall foundations that extended almost back to Bethel Street. These foundations are likely to be the remnants of a rear range (probably 18th-century outbuildings) behind No. 50 St Giles Street, that was demolished to build the sports hall, or parts of it may have been demolished earlier to build the original YMCA gymnasium in the late 19th century. What is presumably the same range appears on Hochstetter's map of 1796.

4.5 Significance

- 4.5.1 The evaluation has revealed a number of features and deposits that will significantly enhance current research into the post-Conquest development of the city, and will build on other recent work within the French Borough. The discovery of an early cellar, indicated by a set of well-preserved steps, is an uncommon find and provides important evidence for the 12th-century expansion west of the market. The redevelopment of the site in the medieval period is also of interest as is the likely presence of a 15th century building on the site, indicated by the demolition material found in a backfilled well. This building may be contemporary with the undercroft beneath the frontage property and if so adds significantly to current understanding of the affluence of the occupants, who are likely to have been part of the merchant class.
- 4.5.2 The artefactual and environmental remains from the site, although moderate in quantity, are on the whole fairly typical of a site of this date and type, being largely domestic in nature with some evidence of low-level industry in the form of ironworking in the vicinity. The pottery is not necessarily indicative of high status, although foreign imports are (perhaps not surprisingly) present in the later medieval assemblage.

4.5.3 Perhaps the most noteworthy aspect of the evaluation is to highlight the survival of stratified archaeological deposits that span the early medieval to post-medieval periods in this central location, which have survived albeit with differential levels of truncation, despite extensive redevelopment during the latter part of the last century in particular.

4.6 Recommendations

4.6.1 Recommendations for any future work based upon this report will be made by the Historic Environment Service of Norfolk County Council.

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APPENDIX A. CONTEXT LIST

Context	Cut	Trench	Category	Feature Type	Date Range
1		1	masonry	wall	16th c. +(brick) re-used?
2		1	layer	buried soil	
3	0	1	layer		
4	0	1	layer		
5	0	1	layer	demolition	
6	0	1	layer	make-up	
7	0	1	layer	organic lens	
8	0	1	layer	make-up	
9	0	1	layer	make-up	
10	0	1	layer	make-up	
11	0	1	cut	unknown	
12	0	1	cut	?pit	
13	0	1	layer	make-up	
14	0	1	cut	pit	
15	14	1	fill	pit	
16	0	1	cut	pit	
17	16	1	fill	pit	
18	0	1	cut	pit	
19	19	1	fill	pit	
20	0	2	layer	make-up	
21	0	2	layer	demolition	
22	0	2	layer	make-up	
23	0	2	layer	make-up	
24	0	2	layer	make-up	
25	0	2	layer	make-up	
26	0	2	layer	buried soil	
27	0	2	layer	make-up	
28	16	1 2	layer	pit	
29	16	2 2	fill	pit	
30	16	3 2	fill	pit	
31	32	2	fill	pit	
32	0	2	cut	pit	
33	0	2	layer	make-up	
34	0	2	cut	pit	
35	34	2	fill	pit	
36	0	2	cut	pit	
37	36	2	fill	pit	
38	0	2	cut	post hole	
39	39	2	fill	post hole	

Context	Cut	Trench	Category	Feature Type	Date Range
40	0	2	cut	post hole	
41	40	2	fill	post hole	
42	0	2	fill	dump	
43	164	2	fill	pit	
44	165	2	fill	pit	
45	0	2	layer	make-up	
46	0	2	layer	make-up	
47	0	N/A	masonry	wall	16 th c. (re-used?)
48	0	N/A	masonry	wall	
49	0	N/A	layer	wall	
50	0	3	cut	pit	
51	50	3	fill	pit	late 12th-14 th also med/post-med key; 15 th c. brick
52	0	3	cut	pit	
53	0	3	cut	pit	
54	52	3	fill	pit	
55	52	3	fill	pit	
56	52	3	fill	pit	
57	52	3	fill	pit	16th+ or 11-14th if GRE intrusive; brick is 15th c
58	52	3	fill	pit	
59	53	3	fill	pit	
60	53	3	fill	pit	
61	0	3	cut	pit	
62	0	3	fill	pit	
63	0	3	cut	pit	
64	63	3	fill	pit	
65	0	3	cut	pit	
66	65	3	fill	pit	
67	0	3	cut	pit	
68	67	3	fill	pit	mid-late 14th
69	0	3	layer	buried soil	
70	0	3	layer	buried soil	
71	0	2A	cut	pit	
72	71	2A	fill	pit	
73	0	2A	cut	well	
74	73	2A	fill	well	15th c. glass; 15th c. brick
75	73	2A	fill	well	
76	73	2A	fill	well	11th-14th
77	73	2A	fill	well	15th-16th; brick is 15thc.
78	73	2A	fill	well	
79	73	2A	fill	well	
80	73	2A	fill	well	mid 14th-end of 15th; brick is 15th c.

Context	Cut	Trench	Category	Feature Type	Date Range
81	0	2A	cut	pit	
82	81	2A	fill	pit	
83	0	2A	masonry	steps	
84	0	2A	layer	floor	
85	0	2A	layer	floor	
86	0	2A	masonry	structure	
87	0	2A	masonry	structure	
88	0	2A	layer		11th-13th
89	0	2A	cut	post hole	
90	89	2A	fill	post hole	
91	0	2A	layer	make-up	11th-14th
92	0	2A	layer	make-up	
93	0	2A	layer	make-up	
94	0	2A	layer	make-up	late 12th-13th
95	0	2A	fill	well	
96	0	2A	cut	pit?	
97	0	2A	fill	pit?	
98	0	2A	layer	make-up	
99	96	2A	fill	pit	
100	101	4	masonry	wall	
101	0	4	cut	foundation trench	
102	103	4	masonry	wall	
103	0	4	cut	foundation trench	
104	0	4	cut	pit or post hole	
105	104	4	fill	pit or post hole	
106	0	4	cut	post hole	
107	106	4	fill	post hole	
108	0	4	cut	post hole	
109	108	4	fill	post hole	
110	111	4	masonry	wall	
111	0	4	cut	foundation trench	
112	0	4	cut	post hole	
113	0	4	fill	post hole	
114	0	4	cut	levelling	
115	114	4	fill	levelling	
116	114	4	fill	levelling	
117	114	4	fill	levelling	
118	0	4	layer	sub soil	
119	0	4	layer	buried soil	
120	0	4	layer	make-up	

Context	Cut	Trench	Category	Feature Type	Date Range
121	0	4	layer	make-up	
122	0	4	masonry	wall	
123	0	4	layer	make-up	
124	0	4	layer	make-up	
125	103	4	fill	foundation trench	
126	127	4	fill	pit?	
127	0	4	cut	pit?	
128	0	4	cut	pit?	
129	128	4	fill	pit?	
130	0	4	cut	post hole	
131	0	4	fill	post hole	
132	0	5	cut	pit	
133	132	5	fill	pit	11th-13th
134	132	5	fill	pit	
135	132	5	fill	pit	
136	132	5	fill	pit	
137	0	5	layer	make-up	
138	0	5	layer	make-up	
139	0	5	cut	post hole	
140	139	5	fill	post hole	
141	132	5	fill	pit	
142	0	5	cut		
143	142	5	fill		
144	0	4	layer	sub soil	
145	73	2A	fill	well	
146	73	2A	fill	well	
147	73	2A	fill	well	
148	73	2A	fill	well	
149	73	2A	fill	well	
150	73	2A	fill	well	
151	0	1	layer	make-up	
152	18	1	fill	pit	
153	18	1	fill	pit	
154	18	1	fill	pit	
155	0	5	cut	pit	
156	156	WB	cut	pit	
157	156	WB	fill	pit	
158	158	WB	cut	pit	
159	158	WB	cut	pit	
160	-	1	layer	make-up	
161	161	2	cut	pit	

Context	Cut	Trench	Category	Feature Type	Date Range
162	162	2	cut	pit	
163	163	2	cut	pit	
164	164	2	cut	pit	
165	165	2	cut	pit	
166	166	1	cut	pit	

APPENDIX A. FINDS REPORTS

A.1 The Small Finds

By Carole Fletcher

Introduction

A.1.1 A small assemblage of artefacts comprising a minimum of seven objects was recovered. Dating of the items is uncertain for three of the seven objects; the remainder are medieval or early post-medieval.

Condition

A.1.2 The objects are in a relatively stable condition although one fragment of medieval glass has become opaque and has undergone some loss of surface. Some of the ironwork is heavily corroded and encrusted.

A.1.3 All objects are packaged in crystal boxes or polythene bags with foam support. These are stored in Stewart boxes with silica gel.

The assemblage by material

A.1.4 The minimum number of objects by material is shown in Table 1.

Copper-alloy objects	1
Iron objects	3
Glass objects	2
Stone objects	1
Total	7

Table 1: Small finds by material

The assemblage by functional category

A.1.5 The functional category used is that defined by Crummy (1983 and 1988). Categories present in the St Giles assemblage are 1, dress accessories, 4, household equipment; 9, buildings and services and 11, fastenings and fittings.

A.1.6 Category 1: SF6, a single (slightly bent) drawn copper-alloy wire pin with a spiral round head (Type 1) was recovered from sample 1. Pins of this type are produced from the medieval period onwards and may have been used to fasten clothing or a shroud. The pottery from the context covers a wide date range from the 13th to 16th century, although the pin is most likely to be medieval.

A.1.7 Category 4 objects consist of two fragments of a Niedermendig lava quern (SF7). The quern retains a portion of a pecked surface, although it is unclear if this is part of the grinding surface. The lava has mortar adhering to an old break suggesting it was reused as building material.

A.1.8 Two shards of medieval window glass are the objects forming category 9. SF2 is a fragment of a painted decorated quarry, of greenish tinted clear glass, which stylistically can be dated to the 15th century. The second shard of window glass (SF3) has not

survived well in the burial environment and has become opaque. This shard is also painted and although some paint loss has occurred part of the design survives and could possibly be identified. The thicker glass and the painting style suggest that the SF3 is earlier than SF2.

- A.1.9 The fittings (category 11) consist of nails, which form the largest part of the ironwork assemblage (2 items) and an iron rotary key (SF4) approximately 80mm in length. The bow of the key appears to be tri-lobed or trefoil-shaped with an 8mm diameter stem. The stem is corroded and it is unclear if it is solid or hollow. The stem and bit may be plain, however corrosion and encrusted soil make this difficult to ascertain. Dating may be possible if the form of the key can be more clearly defined.
- A.1.10 A small Neolithic (Richard Mortimer *pers. comm.*) worked flint was also recovered as an unstratified find.

Further Work and Methods Statement

- A.1.11 All Iron work should be X-rayed.
- A.1.12 No further work is required at this stage unless further excavation is undertaken at which point this material should be incorporated in to the archive and a more detailed report prepared using appropriate specialists.

Small Find	Context	Sample Number	Identification	Date
-	57	1	Drawn wire pin	Medieval

Table 2: Copper-alloy objects

Small Find	Context	Identification	Date
1	74	1 nail	
4	51	Key	Medieval-post medieval
5	51	1 nail	

Table 3: Iron objects

Small Find	Context	Identification	Date
2	74	Window glass (quarry)	15th century
3	74	Window glass	?14th-15th century

Table 4: Glass objects

Small Find	Context	Identification	Date
	91	Lava Quern	

Table 5 Stone objects

A.2 Metalworking Debris

By Peter Boardman and Rachel Fosberry

Introduction and Methods

- A.2.1 A total of 0.648Kg of metalworking debris was recovered from the lower fill (57) of medieval pit **52** in Trench 3. Of this total, 0.339kg was recovered by hand excavation and 0.150kg of iron pan, 0.309kg of slag and hammerscale were recovered via environmental sampling. Identifications were based on morphology and iron content.

Results

- A.2.2 The slag recovered by hand excavation from context 57 consists of two fragments of tap slag, slowly cooled outside the smelt/ furnace with medium-sized fissures, with a slightly shiny patina and purple colour. The third piece of slag is more orange, indicating a slightly higher ferrous content. The fragment also has a white powdery residue adhering to it, as well as impressions of and fragments of uncombusted fuel. This would indicate that it is from the base or lower sides of the smelt-furnace and was removed whilst 'cleaning' the smelt-furnace. The white powdery substance could be some sort of calcium-based substance, possibly chalk or shell, added to the smelt-furnace during the process of iron extraction. The addition of this substance increases the efficiency with which impurities within the iron ore are removed.
- A.2.3 The naturally created iron pan recovered from the sampling suggests that this material may have been used as an iron ore if naturally occurring 'true' iron ore deposits were unavailable.

Discussion

- A.2.4 The levels of hammerscale and slag could be described as background residues from a site on which metal working was undertaken for a small period of time.
- A.2.5 Hammerscale is indicative of the smithing process and has been recovered in both its forms as flake hammerscale which is produced when iron is forged and as spheroidal hammerscale which results from the primary smithing of iron bloom and also during the welding process (Starley 1995).
- A.2.6 The environmental sample from context 57 did not contain any significant quantities of charcoal suggesting that fuel waste had not been discarded in the same rubbish pit as the slag.

Further Work and Methods Statement

- A.2.7 No further work is required at this stage.
- A.2.8 If further excavation is planned, detailed sampling should be undertaken to investigate the nature of the metallurgical activities taking place at this site.

A.3 The Pottery

By Carole Fletcher, with pottery identification by Paul Spoerry

Introduction

- A.3.1 A small pottery assemblage was recovered, comprising 57 sherds weighing 0.778kg from 12 contexts, both stratified and unstratified. A small number of sherds were also recovered from samples and have been included in this assessment.
- A.3.2 The assemblage is mainly early medieval to medieval, dating from the 11th century to the 14th centuries. Also present are a small number of 15th-16th century sherds. The condition of the overall assemblage is moderately abraded and the average sherd weight is moderate at approximately 13g.

Methodology

- A.3.3 The Medieval Pottery Research Group (MPRG) *A guide to the classification of medieval ceramic forms* (MPRG, 1998) and *Minimum Standards for the Processing, Recording, Analysis and Publication of Post-Roman Ceramics* (MPRG, 2001) act as a standard.
- A.3.4 Recording was carried out using OA East's in-house system based on that previously used at the Museum of London. Fabric classification has been carried out for all previously described medieval and post-medieval types. All sherds have been counted, classified and weighed on a context-by-context basis. The pottery and archive are curated by Oxford Archaeology East until formal deposition.
- A.3.5 The assemblage is fully recorded in the summary catalogue.

Sampling Bias

- A.3.6 The evaluation was carried out by hand and selection made through standard sampling strategies on a feature by feature basis. There are not expected to be any inherent biases. Where bulk samples have been processed for environmental remains, there has also been some recovery of pottery. These small quantities of sherds have been quantified.

The Assemblage

- A.3.7 Ceramic fabric abbreviations used in the following text and the total sherd count and weight of all fabrics in this assessment are given in Table 6.

Fabric Code	Fabric Name	No. Sherds	Weight (kg)
DUTR	Dutch red ware	4	0.076
EMSW	Early medieval sandwich ware	2	0.010
EMW	Early medieval ware	2	0.012
GRE	Glazed red earthenware	2	0.016
GRIM	Grimston-type ware	6	0.092
GRIL	Late Grimston-type ware	3	0.037
LANG	Langerwehe	2	0.016
LMT	Late medieval transitional ware	1	0.013
LMU	Local medieval unglazed	32	0.414

SHW	Shelly ware	2	0.021
UPG	Unprovenanced glazed	1	0.071
Total		57	0.778

Table 6: Ceramic fabrics

Pottery by period

- A.3.8 Late Saxon and early medieval wares represent only a very small percentage of the assemblage. Two undiagnostic body sherds of EMSW (1.3% of the total assemblage by weight) and two EMW body sherds from a sooted jar (1.5% of the total assemblage by weight) were recovered from unstratified deposits.
- A.3.9 The medieval assemblage is predominantly coarsewares, mostly local LMU (53.2% of the total assemblage by weight). The only non-local medieval coarseware recognised were two SHW sherds. The LMU forms identified were jars; a single simple LMU rim from a thin-walled early vessel was recovered. In addition a neck sherd from a closed vessel was recovered from context 68, thought at first to be the neck of a sooted jug, on closer examination the interior of the vessel was also found to be heavily sooted and the vessel has now tentatively been identified as a smoker or a hemispherical curfew similar to the one illustrated by Jennings (Jennings 1981, 43, fig. 269).
- A.3.10 Only a small number of medieval glazed wares are present in the assemblage, the majority of which are GRIM type jug sherds (11.8% of the total assemblage by weight) and a single strap handle from an UPG jug. This vessel may be Hollesley-type ware, however this has not been confirmed and the vessel is therefore recorded as unprovenanced.
- A.3.11 Within the late medieval pottery assemblage only a single LMT sherd was identified. Two imported wares are present: two body sherds from a Langerwehe drinking jug and four body sherds of Dutch-type redware vessels, possibly skillets (9.8% of the total assemblage by weight). Glazed sherds from GRIL vessels (4.8% of the total assemblage by weight) were recovered including a two sherds from the base of an internally glazed bowl and the strap handle from a jug.
- A.3.12 Post-medieval pottery (16th-18th-century) is represented by an internally glazed base sherd and a single rim sherd from a GRE bowl. No later material was recovered.

Pottery by trench and site phase

- A.3.13 Trenches 1 and 2 produced no pottery.

Trench 2a

- A.3.14 Phase 2 layer 91 produced a base sherd from an LMU jar (11th-14th century), while layer 94 produced seven LMU sherds including base sherds from two separate vessels and body sherds from a glazed GRIM jug. Overall the pottery dates to the late 12th-13th century.
- A.3.15 Phase 2 layer 88 produced two sherds of LMU which were sooted externally and had what appears to be a deposit of lime-scale on their inner surface. The pottery dates to

the late 11th to the end of the 13th century.

- A.3.16 Three contexts from the upper fills of what has been described as a possible late medieval or early post-medieval (Phase 3) well (**73**), produced a small quantity of pottery. Context 76 produced only a small undiagnostic sherd of LMU. Context 77 contained residual medieval pottery including the rim from a SHW jar and an undiagnostic LMU body sherd. Also present were late medieval sherds, a strap handle from a GRIL jug and a rim sherd from an LMT jar. A base sherd from a glazed GRIM baluster jug was recovered from context 80 alongside a body sherd from a DUTR vessel. Overall the sherds recovered from the these deposits suggest an 15th-16th century date for the upper fills of the well.

Trench 3

- A.3.17 The Phase 2 probable quarry pit **67** produced the largest group of stratified pottery within the assemblage, approximately 27% of the total assemblage by weight. The fabrics present include the abraded base from a SHW jar, a body sherd from an unglazed GRIM vessel, five body sherds from several sooted LMU jars and the neck sherd from an LMU vessel, tentatively identified as a smoker or a hemispherical curfew, similar to the one illustrated by Jennings (Jennings 1981, 43 fig. 269) and dated to the 11th to 13th centuries. In addition to the medieval sherds the quarry fill 68 also produced two unabraded sherds from a LANG drinking jug. This pottery type is late medieval and may be intrusive in the quarry fill or perhaps indicates that the quarry was backfilled in the mid-14th century or later
- A.3.18 Phase 3 pits **50** and **52** produced a single sherd from a high medieval decorated GRIM jug and the remains of several LMU jars including a simple unabraded rim from a thin-walled early vessel respectively. In addition a base sherd from a post-medieval GRE bowl was recovered from the latter pit. It is unclear if the small GRE sherd is intrusive as all the sherds in this pit fill with the exception of the rim sherd are all small and moderately abraded.

Trench 4

- A.3.19 A Phase 1 / 2 post-hole (**106**) produced two sherds of LMU suggesting the feature may date between the 11th to the end of the 13th century. No other stratified pottery was recovered from this trench

Trench 5

- A.3.20 Phase 1 / 2 pit **132** contained four externally-sooted LMU body sherds from various jars. In addition a small abraded sherd of LMU and a body sherd from a glazed GRIM jug were recovered from sample 4.

Discussion

- A.3.21 Vessel types present are those commonly found on domestic sites: jars, jugs and bowls. Undiagnostic sherds form the largest group followed by jars, jugs and then bowls. A sherd from that has tentatively been identified as a smoker or possibly a hemispherical curfew is an uncommon find. The presence of sooted vessels suggests some food preparation was being undertaken on the site using both the jars and some of the limited number of open vessels. Jars may have been multi-functional vessels

used for storage of food or liquids as well as cooking and is indicative of domestic settlement. The overall date for the assemblage is broad from the late 11th to the 16th century. There are no fabrics present that date to later than the 16th century.

Statement of Research Potential and Further Work

- A.3.22 An assemblage of this size provides only basic dating information for a site. The medieval material present may have been disturbed by later activity in the late medieval and post-medieval periods.
- A.3.23 Since this work is part of a larger ongoing project, the entire assemblage will need to be reassessed at a later date and comparative work with assemblages from the surrounding area including sites such as Nos 21-23 St Benedict's Street (Clarke 2006), however no further work is required at this time.

<i>Context</i>	<i>Fabric</i>	<i>Basic Form</i>	<i>Sherd Count</i>	<i>Weight (kg)</i>	<i>Context Date</i>
51	GRIM	Jug	1	0.026	Late 12th-14th century
57	GRE	Bowl	1	0.009	16th century or 11th-14th century if GRE intrusive
	LMU		1	0.006	
	LMU	Jar	4	0.034	
68	GRIM		1	0.007	Mid-late 14th century
	LANG	Jug	2	0.016	
	LMU	Jar	5	0.037	
	LMU	Miscellaneous	1	0.143	
	SHW	Jar	1	0.007	
76	LMU		1	0.002	11th-14th century
77	GRIL	Jug	1	0.015	15th-16th century
	LMT	Jar	1	0.013	
	LMU		1	0.002	
	SHW	Jar	1	0.014	
80	DUTR		1	0.007	Mid 14th-end of 15th century
	GRIM	Jug	1	0.029	
88	LMU	Jar	2	0.010	11th-13th century
91	LMU		1	0.049	11th-14th century
94	GRIM	Jug	2	0.024	Late 12th-13th century
	LMU		7	0.066	
107	LMU	Jar	2	0.014	11th-13th century
133	GRIM	Jug	1	0.006	12th-13th century
	LMU		1	0.001	
	LMU	Jar	4	0.033	
99999	DUTR		3	0.069	Unstratified
	EMSW		2	0.010	
	EMW	Jar	2	0.012	
	GRE	Bowl	1	0.007	
	UPG	Jug	1	0.071	
	GRIL	Bowl	2	0.022	
	LMU		2	0.017	

Table 7: Catalogue of pottery by context

A.4 Ceramic Building Materials

By Rob Atkins

- A.4.1 A small assemblage of brick, tile, daub, mortar and lime wash were found in the evaluation (Table 8). The material was catalogued by context, weight and type and rapidly assessed by fabric and count. All complete widths and thickness of the brick pieces were recorded. The presence of mortar on fragments was also noted to assess if they had been used/re-used before being discarded. The peg holes of the tiles were measured in an attempt to differentiate between one and two peg hole types.

Type	No. of contexts	No. Fragments	Weight (g)
Brick	9	16	8121
Roof tile	3	3	167
Daub	1	2	38
Mortar (and lime wash)	3	3	265

Table 8 Brick, roof tile, daub and mortar (and lime wash)

Results

Brick

- A.4.2 There are 16 brick fragments (8.121kg) from 9 contexts, of which four were from well **73** (Tables 8 and 9). The bricks are all late medieval or early post-medieval in date except for one fragment which may be c.13th or 14th century in date. The latter may be a two-handed brick of 'great brick' type (Ryan 1996, 94), with the remainder being one-handed type from wooden moulds. There are no complete bricks, although most are fairly large fragments with seven having a full width and a further four having their thicknesses surviving. Most of the bricks show evidence of having been used (lime mortar attached) before being disposed of at a later date.
- A.4.3 Well **73** produced seven fairly large brick fragments from four different contexts (74, 77, 79 and 80). The earliest brick is a possible 'great brick' and none of the bricks dated after c.AD 1500 with the latest being c.1450-1500. These bricks were dated by their size and appearance. They were noticeably wide - at 4¾" to 5" wide and 1¾" to 2" thick (Table 9). This width is important as late-15th century buildings such as Ely Palace or the former Wisbech Palace, Cambridgeshire were made with bricks of this width whereas early 16th-century bricks from Ramsey Abbey and Wisbech were only 4½ inches wide (Atkins 2010). Later Tudor bricks are almost always between 4¼ and 4¾ inches wide and only in exceptional cases are they 5 or more inches (Ryan and Andrews 1993, 94). Size of bricks has been determined by various regulations which attempted to standardize their manufacture (Ryan and Andrews 1993, 93). The Tylers' and Brickmakers' Company charter of 1571, for example, stipulated a size of 9 x 4¼ x 2 ¼ inches.
- A.4.4 Five of the bricks from well **73** were from the same 'batch'; they were of the same size (width and thickness) and in an identical fabric (a yellow/orange sandy fabric with an oxidised red surface). They were found in four of the upper well contexts which suggests that the well had been back-filled quickly from one main source. This is confirmed by the mortar (and limewash) pieces recovered from three deposits within this well (see below). This primary source is almost certainly a demolished late medieval building of relatively high status.

- A.4.5 The four very small brick fragments from pits **50** and **67** could not be closely dated and may date to the late 15th century or early post-medieval period. The two part-bricks from well **52** are likely to be 16th century in date. They are noticeably smaller in width (4½") than brick from Well **73** in a different fabric.
- A.4.6 Three part-bricks were recovered from two different walls (1 and 47), one recorded in Trench 1 and the other a standing wall revealed after the demolition of the accommodation block. All three bricks were probably made in the 16th century from wooden one-hand moulds. They are of the same size, in a red sandy fabric and may be contemporary. Bricks from both walls were not complete when they had been re-used as lime mortar was used across the broken face. It is uncertain whether this was due to the bricks being reused from an earlier structure or they had been deliberately broken when new to fit into the walls. In both cases the breaks across the bricks were not even, which implies they are more likely to have been reused.
- A.4.7 Wall 1 was recorded in Trench 1 and had been built on a chalk footing. The wall was between 0.45m and 0.50m wide and was constructed from a mixture of brick and flints. Wall 47 ran north-to-south, it survived to a height of more than 2m, was 2m long and c.0.5m wide. The wall had been crudely made, with the face almost entirely comprising headers with the occasional stretcher and bonded with lime mortar. This is an early brick wall which has survived by being incorporated into later brick walls. Although the two part bricks are probably 16th century in date, the wall is likely be later.

Context	No	Wt (g)	Dimensions	Comments	Feature and Period
1	1	1392	7" + long , was 4.5" wide and 2" thick	Wall 1. Part brick in a red sandy fabric,. A mould impression survives along the side of the top of brick. Straw impressions on one side. Lime mortar was attached to all faces.	c.16th century
47	2	2312	The most complete was more than 7.5" long, 4.5" wide and 2" thick (1416g)	Wall 47. Standing wall. They are in a red sandy fabric, which had been poorly mixed. Straw impressions survive on base of bricks. Lime mortar was attached to all faces.	c.16th century
51	3	179	-	Pit 50 . Three small fragments in a poorly mixed orange/yellow sandy fabric	c.late 15th-17th century
57	2	1097	1) 5.5"+ long 4.5" wide and 2" thick 2) 2" thick	Well 52 . Part brick (1006g). Orange sandy fabric. Drag marks from scraping external clay from mold. Straw impressions on base and surviving side. Crudely made. Cracking along end of brick. Fragment in orange sandy fragment had been over fired.	c.16th century
68	1	58		Pit 67 . Orange sandy fabric	? late15th cent +
74	3	2110	1) 4¾" width and c.1¼ thick 2) 2" thick 3) c.5" width, and c.1¼ thick	Well 73 . Three part bricks were recovered: 1) This part-brick was in a yellow sandy fabric. It had straw impressions on base and had hard lime mortar on top and base of brick. 2) Part-brick in a cream/yellow sandy fabric with very rare small stone up to 10mm in length. It is uncertain if brick is a one or two handed brick and may be either high medieval or late medieval in date. There are straw marks on top of brick. Straw marks mostly follow the length of brick - if this is the case the brick is more than 5" wide. Small quantities of lime mortar is on the top, base and surviving side of the brick. The brick has probably been burn after disuse as it was heavily burnt on base and broken side of brick. 3) Part brick in a yellow/orange sandy fabric, oxidised red on exposed sides only. Lime mortar on top and base.	One brick may date from the 13th or 14th century or all three bricks date from c.1450-1500
77	1	446	5" wide and 2" thick	Well 73 . Part brick in a yellow/orange fabric. Oxidised pink/red on surface. Hard lime mortar on top and base.	c.1450-1500
79	1	43		Well 73 . Brick fragment in a yellow/orange fabric and oxidised pink/red on surface	c.1450-1500

Context	No	Wt (g)	Dimensions	Comments	Feature and Period
80	2	484	1) and 2) 2" thick	Well 73. Both fragments in a yellow/orange fabric and oxidised red on surface. One is slightly cracked from being over fired. This fragment has straw impression on top and lime mortar on top and one side.	c.1450-1500
	16	8121			

Table 9: Catalogue of bricks

Roof tile

- A.4.8 There were just three ceramic roof tile fragments (167g) recovered from three contexts. Ceramic roof tile is notoriously difficult to date and these pieces may be medieval or post-medieval in date. There is a two-peg hole type from pit **50** (context 51). This is in a hard orange sandy fabric and has a sub-rounded peg hole which is 20mm from the top of tile and 41mm from its side. Another two-peg hole type tile fragment (70g) was found within well **73** (context 74). Its sub-rounded peg hole was 13mm by 11mm in size and 30mm and 25mm from top/side of the tile. A third tile fragment (32g) from pit **53** (context 60) is undiagnostic but has lime mortar adhering to one side.

Daub

- A.4.9 Two daub fragments (38g) were found in pit **52** (context 57); they are an orange sandy fabric with frequent white chalk inclusions up to 6mm long. One fragment has a wattle impression, 23mm+ long and 8mm wide.

Mortar (and lime wash)

- A.4.10 There are three lime mortar fragments (265g), two had white lime wash on one surface and are likely to be from internal walls of one of more buildings. The fragments were all from well **73** (contexts 77 (120g), 79 (131g) and 80 (14g); white lime wash survives on the internal face of the lime mortar on the latter two fragments. The lime mortar was ½" thick, smooth on both sides, but especially on one side where lime wash had been added.

APPENDIX B. ENVIRONMENTAL REPORTS

B.1 Faunal Remains

By Chris Faine

- B.1.1 Eighty-two fragments of animal bone were recovered, with 38 fragments identifiable to species (46.3% of the total sample). Faunal material was recovered from a variety of features dating from the medieval to early post-medieval periods. Table 10 shows the species distribution for the identifiable assemblage. As might be expected, the assemblage is dominated by the domestic mammals, with sheep/goat, cattle and pig being the most prevalent taxa. Cattle remains consist of a variety of elements including limbs and cranial fragments. Fewer cranial fragments were recovered from the sheep and pig assemblages, with these consisting largely of limb elements. Fifty-one percent of the domestic mammal assemblage shows signs of butchery. Horse remains are present in limited numbers as are commensal/smaller mammal remains (in this case rabbit and cat). Bird remains are limited to butchered fowl and goose long bones. Fish remains are numerous but fragmentary and include cod, thornback ray and medium sized gadid (possibly whiting).

B.1.1 The proportions of the domestic mammals is similar to those seen at other similarly sized assemblages such as Music House Lane (Wallis 2007) and St Benedict's Street (Clarke 2006) and Anglia Square (Wallis 2010). The body part distribution suggests general occupation waste rather than meal remains, with the domestic mammals in this case being exploited largely for meat. Domestic birds are commonly seen in medieval urban assemblages, with geese being especially popular due to the wide range of secondary products they can provide (such as eggs, feathers and fat). Marine fish remains are a common component of medieval assemblages from Norwich, with all species present being catchable from shore via net or line.

	NISP	NISP%	MNI	MNI%
Sheep/Goat (<i>Ovis/Capra</i>)	9	23.7	7	25
Cattle (<i>Bos</i>)	8	21	5	18
Pig (<i>Sus scrofa</i>)	5	13.2	3	10.8
Horse (<i>Equus caballus</i>)	2	5.3	2	7.2
Rabbit (<i>Oryctolagus cuniculus</i>)	2	5.3	2	7.2
Cat (<i>Felis sylvestris</i>)	1	2.6	1	3.4
Domestic Fowl (<i>Gallus sp.</i>)	3	7.9	2	7.2
Domestic Goose (<i>Anser sp.</i>)	2	5.3	2	7.2
Cod (<i>Gadus morhua</i>)	2	5.3	2	7.2
Thornback Ray (<i>Raja clavata</i>)	1	2.6	1	3.4
Med. Gadid	3	7.8	1	3.4
Unid. Large Mammal	13	N/A	N/A	N/A
Unid. Med. Mammal	23	N/A	N/A	N/A
Unid. Fish	7	N/A	N/A	N/A
Unid. Bird	1	N/A	N/A	N/A
Total:	82	100	28	100

Table 10: Species distribution for the assemblage.

Context	NISP	Species
51	11	Sheep/Goat, Unid Fish, Med. Mammal
57	5	Cod, Unid Fish
68	6	Cat, Thorn-back Ray, Unid Fish
76	11	Cattle, Sheep/Goat, Horse, Fowl, Med. Mammal
77	3	Pig, Fowl
79	14	Sheep/Goat, Pig, Fowl, Med. Mammal
80	26	Cattle, Sheep/Goat, Pig, Horse, Rabbit, Fowl, Goose, Unid Bird, Large Mammal
91	5	Cattle, Pig, Fowl, Large Mammal
133	1	Unid Fish

Table 11: Faunal remains by context

B.2 Environmental Samples

By Rachel Fosberry

Introduction and Methods

- B.2.1 Four bulk samples were taken from features within the evaluated areas of the site in order to assess the quality of preservation of plant remains and their potential to provide useful data as part of further archaeological investigations.
- B.2.2 Features sampled include three medieval pits and the upper deposit of a late medieval well.
- E.3.1 Ten litres of each sample were processed by tank flotation for the recovery of charred plant remains, dating evidence and any other artefactual evidence that might be present. The flot was collected in a 0.3mm nylon mesh and the residue was washed through a 0.5mm sieve. Both flot and residue were allowed to air dry. The dried residue was passed through 5mm and 2mm sieves and a magnet was dragged through each resulting fraction prior to sorting for artefacts. Any artefacts present were noted and reintegrated with the hand-excavated finds. The flot was examined under a binocular microscope at x16 magnification and the presence of any plant remains or artefacts are noted on Table 12. Identification of plant remains is with reference to the Digital Seed Atlas of the Netherlands (Cappers *et al* 2006) and the authors' own reference collection.

Quantification

- B.2.3 For the purpose of this initial assessment, items such as seeds, cereal grains and small animal bones have been scanned and recorded qualitatively according to the following categories
- # = 1-10, ## = 11-50, ### = 51+ specimens
- B.2.4 Items that cannot be easily quantified such as charcoal, magnetic residues and fragmented bone have been scored for abundance
- + = rare, ++ = moderate, +++ = abundant

Results

- B.2.5 The results are recorded on Table 12.

Sample no.			1	2	3	4
Context no.			57	68	80	133
Cut no.			52	67	73	132
Feature type			Pit	Pit	Well	Pit
Volume of flot (ml)			10	25	20	5
% flot sorted			100	100	100	100
Species	Common name	Habitats				
Cereals						
<i>Triticum sp. Free-threshing grain</i>	Wheat	crop	##	#	#	#
<i>Hordeum vulgare hulled grain</i>	Barley	crop		##		#
<i>Secale cereale grain</i>	Rye	crop	#			
Other crops						
<i>Pisum sativum</i>	Pea	crop	#	#		
Weeds						
<i>Bromus sp.</i>	Bromes	wide range of grassy places including arable & disturbed		#		
<i>Eleocharis palustris</i>	Common spike-rush	ponds, marshes, ditches, riversides		#	#	
<i>Galium aparine</i>	Cleavers	cultivated & arable land, hedgerows & scrub, other open ground		#		
<i>Lolium sp.</i>	Rye-grass	wide range of grassy places				
<i>Rumex sp.</i>	Docks	all sorts of waste ground		#		
<i>Scirpus sp.</i>	Bull rush	ponds, marshes, ditches, riversides			#	
<i>Vicia sp./Lathyrus sp.</i>	Tare/Vetchling	all sorts of rough ground & grassy places		#		
Other plant macrofossils						
Charcoal <2mm			+++	+++	+++	+++
Charcoal >2mm			+++	+++	+++	+
Indet.seeds			#			
Other remains						
Animal bone			#		##	
Fish bone			#	#	##	#
Pottery			#	#		#
Slag			##			
Oyster shell					#	#
Hammerscale			#	#		#

Table 12: Environmental Remains

- B.2.6 Preservation is by charring and is generally moderate. Charcoal is abundant in all of the samples. The well deposit did not contain any waterlogged remains.
- B.2.7 Charred plant remains occur in all four samples. Cereal grains of barley (*Hordeum sp.*), wheat (*Triticum sp.*) predominate along with grains of rye (*Secale cereale*) and occasional oats (*Avena sp.*). Chaff of both wheat and barley occur rarely in Samples 1 and 2.
- B.2.8 Other crop remains include the occasional occurrence of peas (*Pisum sativum*)

- B.2.9 Charred weed seeds are most common from Samples 1 and 2, both medieval pit fills. Plant species include common crop contaminants such as vetch/tare (*Vicia/Lathyrus* sp.), rye-grass (*Lolium* sp.), brome (*Bromus* sp.) and docks (*Rumex* sp.) and cleavers (*Gallium aparine*). Wetland species are represented by spike-rush (*Eleocharis* sp.) and bull-rush (*Scirpus* sp.).
- B.2.10 Several mammal and fish bones were noted in the residues, especially in Sample 3. Slag was also noted in sample 1 and hammerscale was noted in the sample flots from all of the medieval pits.

Discussion

- B.2.11 Wheat and barley predominate in the cereal assemblage. Wheat is most commonly used for flour whereas barley was often used for animal fodder although it may have been used for human consumption in the form of bread, and was also used for the brewing of beer. No germinated grains occur in this assemblage to suggest brewing activities. Rye did not become an important crop until the Saxon and medieval period (Van der Veen 1992).
- B.2.12 The weed seed assemblage is typical of the the flora found as contaminants of cultivated crops and were most probably harvested along with the cereals before being picked out and discarded on the hearth. The rush seeds show that wetland resources were being exploited most probably as fuel or bedding/flooring.

Further Work and Methods Statement

- B.2.13 From the four samples examined it appears that there is good potential for further archaeobotanical study. No further work is required on this small assemblage. If further excavations are planned for this area, it is recommended that a schedule for environmental sampling should be appended to the updated project design. By extensive sampling the nature of cereal waste and weed assemblages should provide an indication of whether these cereals were locally grown or imported.
- B.2.14 The substantial amount of animal bone and fish bones noted in Sample 3, Phase 3 well deposit 80 are recommended for full assessment by a zoologist.

B.3 Shell

By Rachel Fosberry

Introduction and Methods

- B.3.1 A total of 0.223kg of marine shell was recovered from eight contexts. The shells were quantified and examined in order to assess the diversity and quantity of these ecofacts and their potential to provide useful data as part of further archaeological investigations.
- B.3.2 This assemblage is the result of both hand collection and shell recovered from environmental samples.

Results

Species	Common name	Habitat	Total weight (Kg)	Total number of contexts
<i>Ostrea edulis</i>	Oyster	estuarine and	0.217	8

		shallow coastal water		
<i>Buccinum undatum</i>	common whelk	Salt water, sublittoral	0.001	1
<i>Mytilus edulis</i>	Mussel	intertidal, salt water	0.003	3
<i>Cerastoderm a edule</i>	Cockle	intertidal, salt water,	0.001	1

Table 13: Shell

All of the bivalve shells were unhinged. There were slightly more right oyster valves than left ones although this is not significant as the left and right valves were not observed as matching in any of the contexts.

Discussion

- B.3.1 Shellfish, along with fish, was religiously consumed on Fridays and during Lent in the medieval period. The shells would have been discarded in middens which were often used for manuring cultivated fields.
- B.3.2 Oyster shells predominate in this assemblage. *Ostrea edulis* is a bivalve mollusc that has an oval shaped left valve that is concave in shape with a rough, scaly surface and a right valve that is flattened and has a smoother surface. A total of 12 left valves and 14 right valves occur in this assemblage. This discrepancy may be explained by the preparation of oyster prior to eating; the right valve is prised off and possibly discarded separately and the meat is left in the left valve. Oysters can have a fairly long shelf-life of up to around two weeks; however, they should be consumed when fresh, as their taste reflects their age.
- B.3.3 Medieval oyster shells tend to be smaller than in earlier periods due to intensification of harvesting (Winder 1993). In this assemblage, the left valve averages approx 4-7cm. Some of the smaller shells were possibly juvenile spats that had been harvested too early.
- B.3.4 The percentage of cockles (0.5%), whelks (1%) and mussels (1%) in this assemblage is low. These shellfish were consumed in the medieval period but were possibly not as commonly as oysters were. These species may possibly have been contaminants of the oyster harvest.
- B.3.5 The majority of the shells are moderately preserved and do not appear to have been deliberately broken or crushed.
- B.3.6 Shellfish, in particular, oysters are common in medieval times. The assemblage would not have represented a single meal but the presence of marine shell does show that these species were a food resource that was exploited.

Further Work and Methods Statement

- B.3.7 The assemblage has been fully quantified and no further work is required at this stage. If further excavations are planned for this site, a detailed sampling strategy should be considered to investigate the degree of exploitation of marine resources.

APPENDIX C. OASIS REPORT FORM

All fields are required unless they are not applicable.

Project Details

OASIS Number	oxfordar3-88757		
Project Name	Evaluation and watching brief at YMCA, 46-48 St. Giles Street Norwich.		
Project Dates (fieldwork) Start	05-08-2010	Finish	22-11-2010
Previous Work (by OA East)	No	Future Work	Yes

Project Reference Codes

Site Code	ENF125116	Planning App. No.	09/01367/F
HER No.	ENF125116	Related HER/OASIS No.	

Type of Project/Techniques Used

Prompt	Direction from Local Planning Authority - PPG16
Development Type	Urban Residential

Please select all techniques used:

<input type="checkbox"/> Aerial Photography - interpretation	<input type="checkbox"/> Grab-Sampling	<input type="checkbox"/> Remote Operated Vehicle Survey
<input type="checkbox"/> Aerial Photography - new	<input type="checkbox"/> Gravity-Core	<input checked="" type="checkbox"/> Sample Trenches
<input type="checkbox"/> Annotated Sketch	<input type="checkbox"/> Laser Scanning	<input type="checkbox"/> Survey/Recording Of Fabric/Structure
<input checked="" type="checkbox"/> Augering	<input type="checkbox"/> Measured Survey	<input type="checkbox"/> Targeted Trenches
<input type="checkbox"/> Dendrochronological Survey	<input type="checkbox"/> Metal Detectors	<input type="checkbox"/> Test Pits
<input type="checkbox"/> Documentary Search	<input type="checkbox"/> Phosphate Survey	<input type="checkbox"/> Topographic Survey
<input type="checkbox"/> Environmental Sampling	<input type="checkbox"/> Photogrammetric Survey	<input type="checkbox"/> Vibro-core
<input type="checkbox"/> Fieldwalking	<input type="checkbox"/> Photographic Survey	<input type="checkbox"/> Visual Inspection (Initial Site Visit)
<input type="checkbox"/> Geophysical Survey	<input type="checkbox"/> Rectified Photography	

Monument Types/Significant Finds & Their Periods

List feature types using the [NMR Monument Type Thesaurus](#) and significant finds using the [MDA Object type Thesaurus](#) together with their respective periods. If no features/finds were found, please state "none".

Monument	Period	Object	Period
Steps	Medieval 1066 to 1540	Pottery	Medieval 1066 to 1540
Pit	Medieval 1066 to 1540	CBM	Medieval 1066 to 1540
Post hole	Medieval 1066 to 1540	Animal bone	Medieval 1066 to 1540

Project Location

County	Norfolk	Site Address (including postcode if possible)
District	Norwich	YMCA, 46-48 St. Giles Street, Norwich, NR2 1LP.
Parish	St Giles	
HER	ENF125116	
Study Area		National Grid Reference TG 2265 0855

Project Originators

Organisation	OA EAST
Project Brief Originator	Norfolk Landscape Archaeology
Project Design Originator	OA East
Project Manager	P. Spoerry
Supervisor	S. Underdown

Project Archives

Physical Archive	Digital Archive	Paper Archive
Norfolk Museum Service	Norfolk Museum Service	Norfolk Museum Service
ENF125116	ENF125116	ENF125116











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










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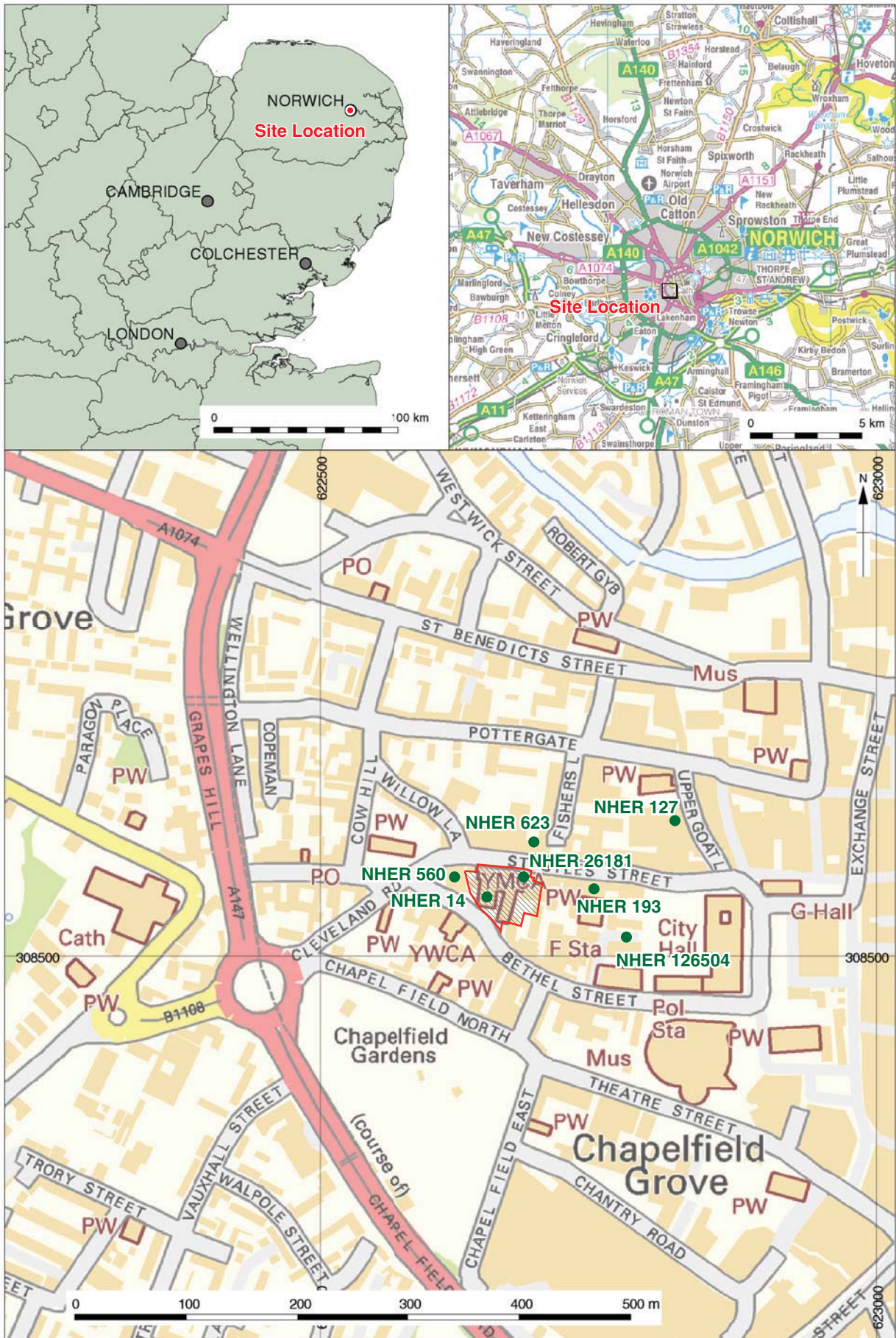
Plans

Limit of Excavation	—————
Deposit - Conjectured	- - - - -
Sondages/Machine Strip	- · - · - ·
Intrusion/Truncation	- · - · - ·
Illustrated Section	<u> S.14 </u>
Archaeological Feature	 Wall 
Archaeological Deposit	 Masonry 
Modern Deposit	 Concrete 
Excavated Slot	 Cut Number 118
Brick	 Deposit Number 118
Flint	 Structure Number 

Sections

Limit of Excavation	- - - - -
Cut	—————
Cut Conjectured	- - - - -
Deposit Horizon	—————
Deposit Horizon conjectured	- - - - -
Top Surface/Top of Natural	—————
Break in Section	- - - - -
Cut Number	117
Deposit Number	117
Structure Number	
Ordnance Datum	18.45m OD 
Wall	 Stone 
Concrete	 Mortar 
Brick	 Sand 
Flint	 Clay 
Chalk	 Charcoal 

Convention Key



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Figure 1: Site location with development area outlined red

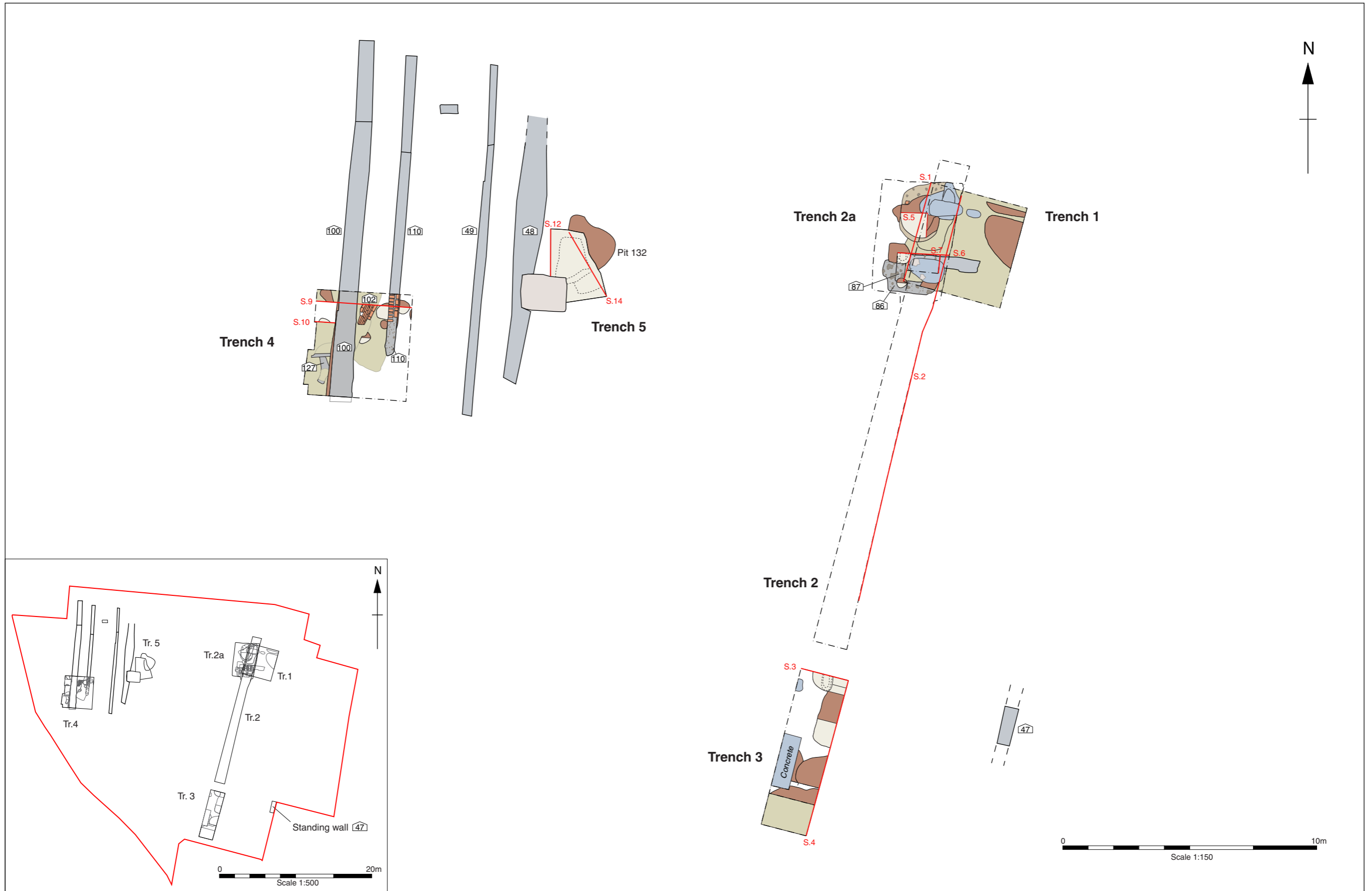


Figure 2: Overall plan of trenches 1-5 showing structures and section lines

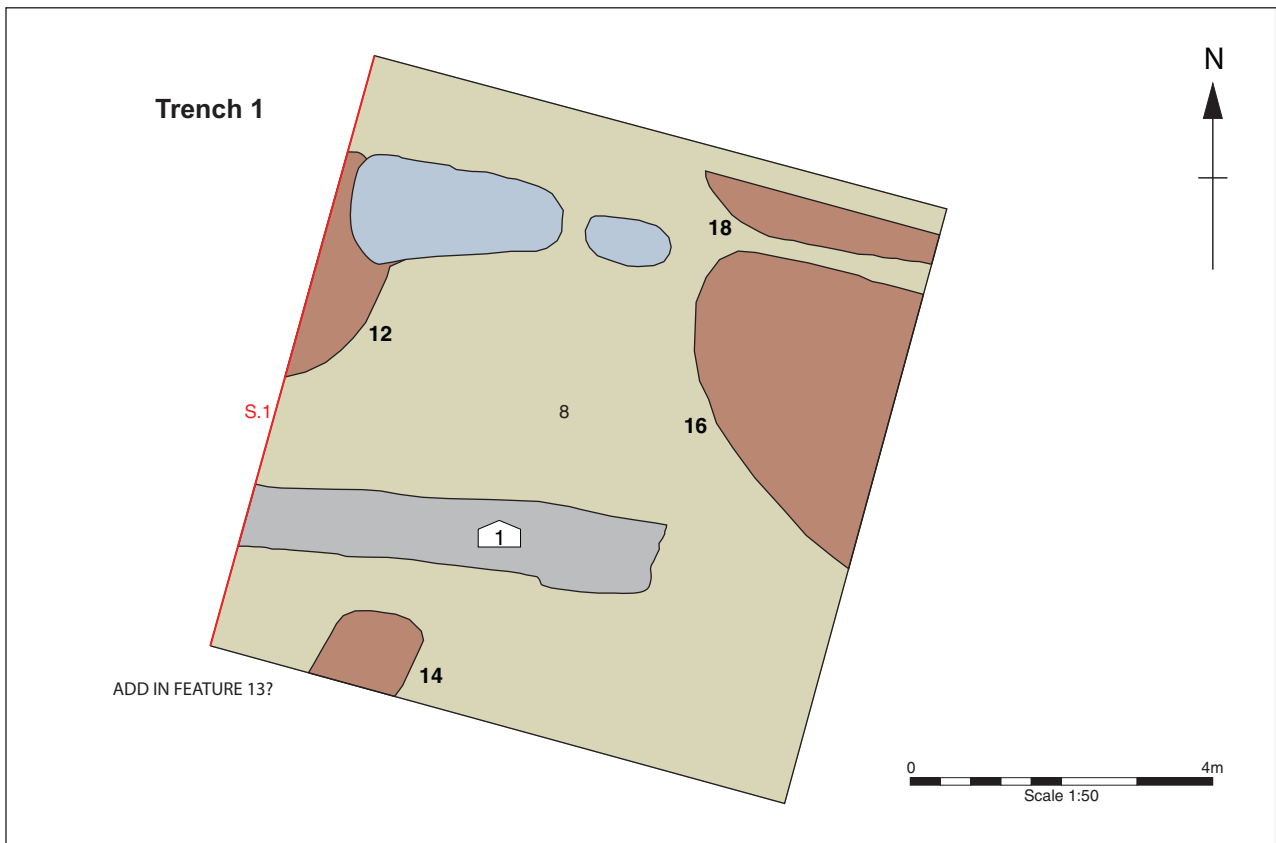


Figure 3: Plan of Trench 1

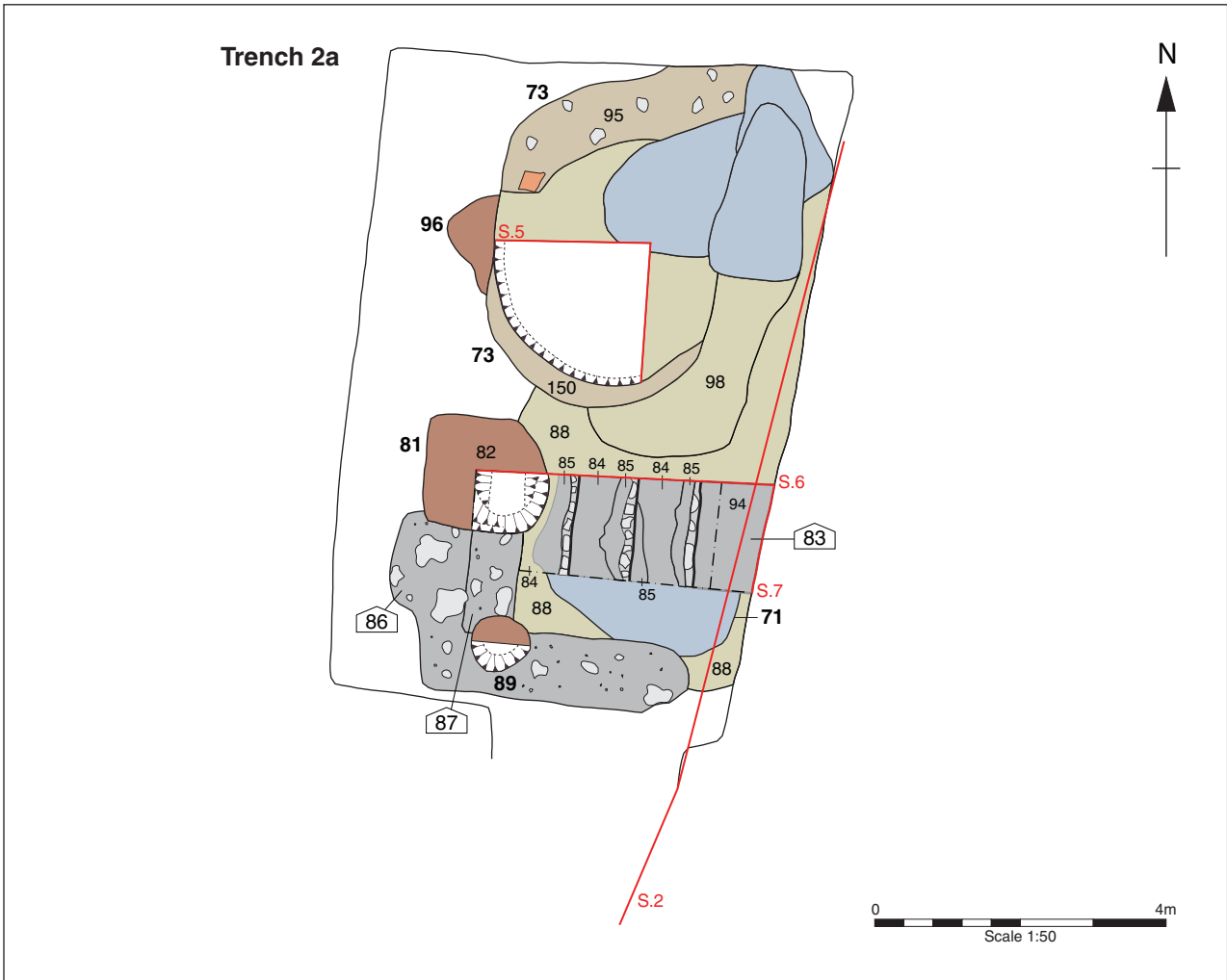


Figure 4: Plan of Trench 2a

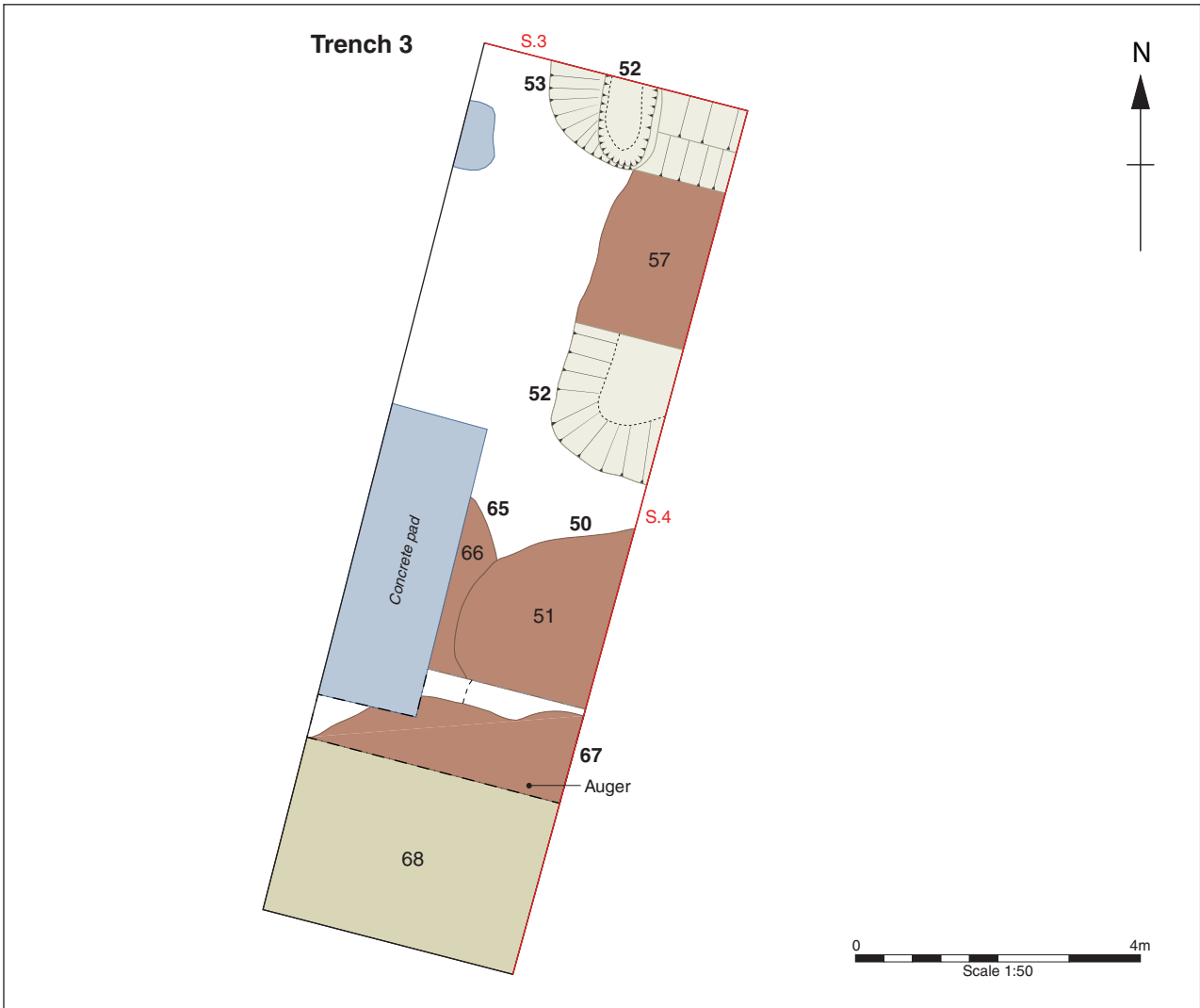


Figure 5: Plan of Trench 3



Figure 6: Plan of Trench 4

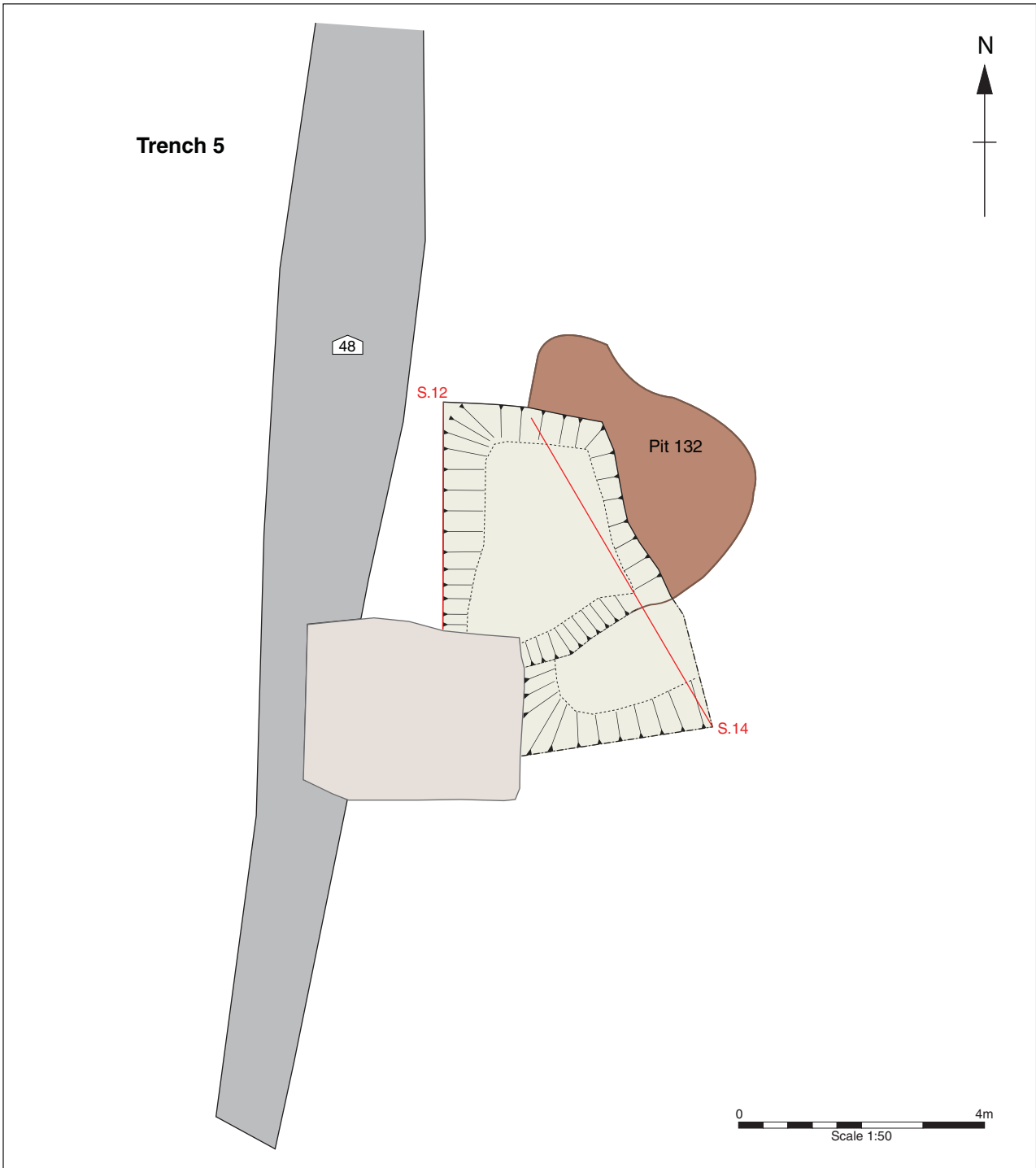


Figure 7: Plan of Trench 5

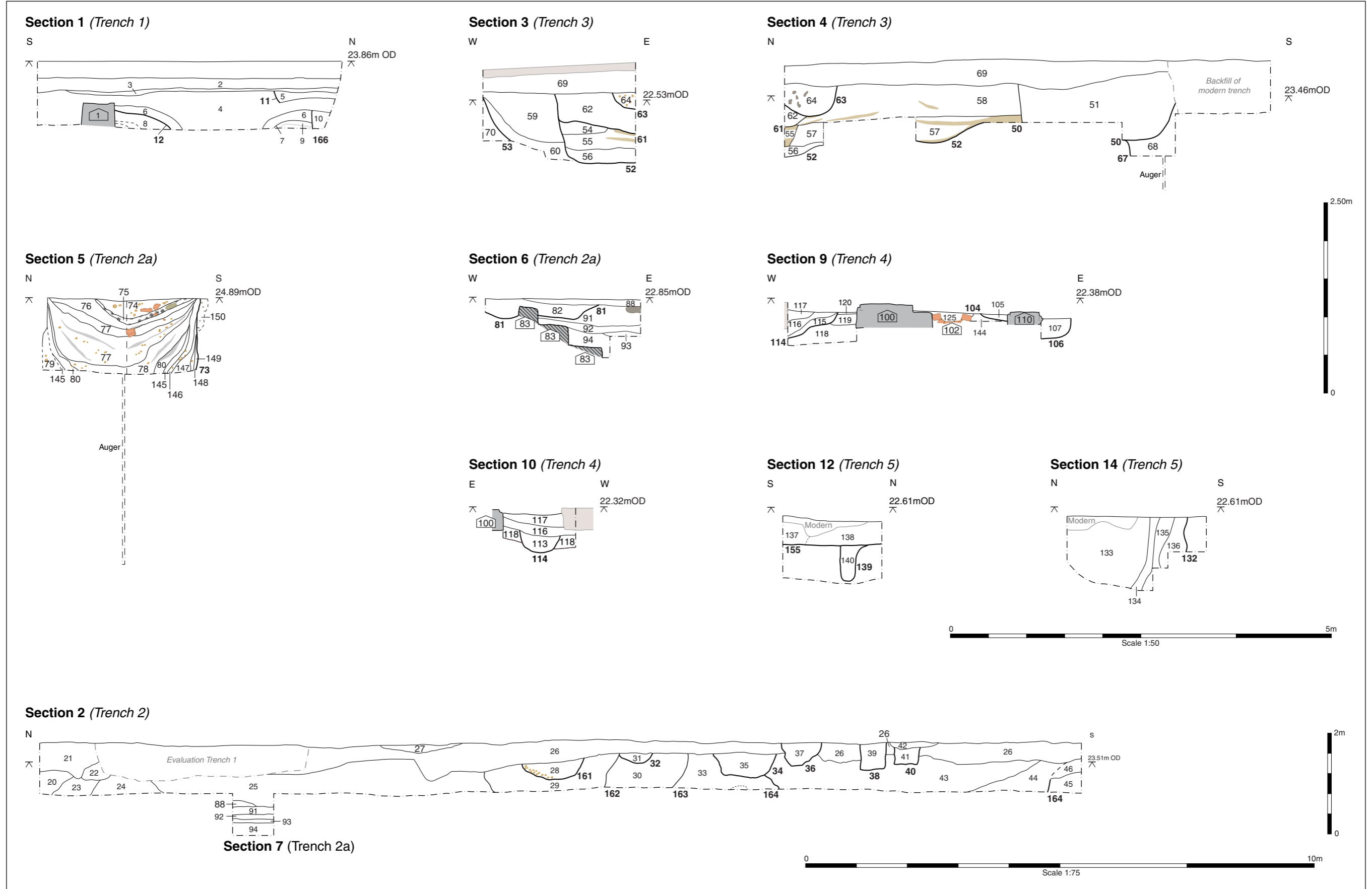


Figure 8: Section drawings



Plate 1: Trench 1 looking north-west



Plate 2: Trench 2a looking east with base of Trench 1 in background



Plate 3: Trench 2a sondage with masonry steps, looking north



Plate 4: Trench 3 (north end) looking east



Plate 5: Trench 3 (south end) looking east



Plate 6: Trench 4 looking north showing surviving wall foundations



Plate 7: Trench 5 looking north



Plate 8: Wall 47 looking east



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