

NAU Archaeology

Report No.1324

An Archaeological Evaluation at the former Eastern Electricity Offices, Duke Street, Norwich in advance of the Dukes Wharf re-development

Evaluation Trenches 1 to 6

HER 49778N

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Location: The Former Eastern Electricity Offices, Duke Street, Norwich.
District: Norwich
Grid Ref: TG 22866 08805
HER No.: 49778N
Date of fieldwork: 29th May to 30th of July 2007

Summary

Excavations by NAU Archaeology of six trial trenches ahead of the Dukes Wharf development site revealed features of probable eleventh century to modern date.

Evidence of Saxo-Norman quarrying of the chalk scarp running along Westwick Street-Charing Cross was identified at the rear of the site. Further Saxo-Norman activity was discovered closer to the river including a well-preserved timber structure that may have formed a walkway close to the Saxon foreshore. Numerous well preserved leather off-cuts were collected from a Saxo-Norman riverine deposit which may derive from cobbling or clothing waste.

Documentary evidence suggests that from the 13th-century into the 1600s the site was occupied by those involved with the textile industry and records suggest the presence of several medieval messuages across the site. Large numbers of 13th to 14th century medieval pits of a likely industrial purpose, possibly associated with Dying, Bleaching and Fulling processes were discovered in two locations on the site.

The foundations of two possible 15th century stone buildings were revealed just below the modern make-up in two trenches near the centre of the site. The impressive remains of one of these structures exceeded 2m in depth. Numerous surfaces, features and layers associated with the walls construction survived at their base. These structures rested above flint and mortar foundations of a likely 14th-century construction. Demolition waste and recycled medieval building materials made use of in the later constructions may have been recycled from such earlier buildings.

The lost medieval lane of Bleckstershole appears to demarcate the western extent of the Duke of Norfolk's Palace complex. This lane is believed to have once run from south-north on the eastern side of the former Eastern Electricity Board Social Club building. Any foundations or deposits associated with the Duke's Palace are likely to be situated along the eastern limit of the Duke's Wharf site, the majority of which is currently occupied by former office buildings on the Dukes Street frontage.

Brick foundations and preserved rail-lines which once formed part of the Bullard's Anchor Brewery were revealed in the western area of the site. The potential remains for evidence of further 19th-century industry in the north-eastern area of the site on the site of the Duke's Palace Ironworks and the original Electrical Light Works Building which replaced it.

A fairly large assemblage of finds was recovered which includes residual food waste associated with a high status diet; this includes an example of a cetacean bone such as porpoise/dolphin, one of the most expensive medieval food items. Several finds worthy of interest and comment were discovered, these include a sealed late medieval cup weight box (which could still contain a set of nested weights) and a late Saxon carved bone tool, possibly for use as a writing implement.

1.0 Introduction

This archaeological evaluation was undertaken as part of a programme of archaeological work resulting from proposals for the redevelopment of the former Eastern Electricity Board Offices, Duke Street, Norwich. The new development area, herein referred to as Dukes Wharf, consists of a temporary surface car park with unoccupied former Electricity Board buildings primarily occupying the eastern and northern sides of the site (c. 8460m²). NAU Archaeology was commissioned by James Smith and the work was funded by Targetfollow Group Ltd.

The work was conducted in accordance with a Project Design and Method Statement prepared by NAU Archaeology (Ref: BAU1302/DW) and a Brief for Archaeological Evaluation by Window Sampling and Trial Trenching issued by Norfolk Landscape Archaeology (AH/24/8/06). The Brief was issued prior to the submission of the Planning Application with the Planning Authority, Norwich City Council. The window sampling element has since been completed (Adams 2007, NAU Report 1249) and the results were used to inform on both the number and position of trial trenches.

The initial stage of trial trenching is now complete and a further stage of trial trenching is due to commence following demolition of the extant buildings. The results of these further trenches will be produced in a subsequent report.

The work was designed to assist in defining the character and extent of any archaeological remains within the proposed redevelopment area, following the guidelines set out in *Planning and Policy Guidance 16 — Archaeology and Planning* (Department of the Environment 1990). The results will enable decisions to be made by the Local Planning Authority with regard to the treatment of any archaeological remains found.

The site archive is currently held by NAU Archaeology and on completion of the project will be deposited with Norfolk Museums and Archaeology Service, following the relevant policy on archiving standards.

2.0 Geology and Topography

The Dukes Wharf site is an area of land bounded by the River Wensum to the north and the southern end of Duke Street to the east. A row of commercial units which front onto Charing Cross bounds the southern edge of the site and the converted remains of the former Anchor Brewery are sited to the west.

The buildings which currently occupy the site consist of the former offices, depot and social club of the Eastern Electricity Board surrounding a large car park. These buildings form a street frontage with Duke Street on the east side of the site and a riverside frontage along the northern edge of the site. The former social club building stands in the south-eastern area of the site. Current site access is from a lorry portal off Dukes Street at the north-eastern corner of the site and from an entrance off Westwick Street in the south-western corner.

The site overlies a solid geology of Upper Chalk (East Anglia Sheet 52N British Geological Survey). It is located on the southern bank of the tidally influenced River Wensum on an area between the river and higher ground demarcated by the

approximate east-to-west alignment of St Andrews Street, Charing Cross and St Benedicts Street. These streets appear to respect the line of a natural chalk scarp that delineates the southern edge of the Wensum Valley within this area of the city.

The site slopes markedly down from north-south towards the river frontage, with a further drop in level towards the north-west corner of the site. The deposits overlying the natural chalk geology consist of riverine silts and silty peat formations. Above the silts trial trenching both on this site and on riverside locations close by has demonstrated that this former marshland has received large volumes of imported material since the medieval period, dumped to consolidate formerly marginal land. At the southern end of the site this material may account for several metres of made ground.

3.0 Archaeological and Historical Background

3.1 Possible Roman Route-way

An east-west and a north-south Roman roadway running through the core of the medieval city has been suggested. The east-west route may follow the alignment of Charing Cross, St Benedict's Street and St Andrew's Street heading east to a possible causeway at Bishopgate whilst the north-south route may follow the alignment of Oak Street, crossing the River Wensum and running south along Ber Street.

These conjectural roadways may have crossed close to the site of Charing Cross. The Oak Street route may have run on a more direct route to ford the River to the east of the medieval St Miles/Coslany Bridge before running through the eastern half of the Dukes Wharf site, perhaps heading along the route of St Gregory's Alley (Brian Ayers *pers. comm.*).

3.2 Saxon Origins

The origins of urban Norwich probably lie in the amalgamation of smaller Middle Saxon settlements around the 9th century. One such settlement might have been in the vicinity of Westwick, suggested by the survival of the term *wic* – a place-name component of possible Middle Saxon origin. There is little further evidence to identify Middle Saxon occupation close to the site.

The site lies outside what is understood to be the focus of Late Saxon settlement in Norwich, an area defined by Anglo-Scandinavian defences enclosing areas north and south of the River Wensum, probably created in the 10th century (Ayers 2003). The area of St Andrew's Street is believed to have been first occupied from the late 9th or 10th century, with the street forming part of the major Late Saxon/Anglo-Scandinavian borough (Ayers 2003). St Andrew's Street has previously been known as Wymer Street; Wymer was one of the four great divisions, or Leets of medieval Norwich.

3.3 Late Saxon/Early Medieval Activity

The river frontage of the site is located close to the early town and may have provided a suitable location for industry, perhaps from as early as the 11th century when the area was part of a low-lying marsh land.

Late-Saxon to early-medieval occupation and industrial activity has been discovered during excavations in the vicinity of the site and includes evidence for metal working on the northern side of the river at Coslany Street (NHER 308) and Oak Street (NHER 26503 and 26535) and on the south side at Westwick Street (NHER 37379). From the Late Saxon period large-scale dumping of material occurred along the river margins and this consolidation activity continued into the medieval and post-medieval period.

3.4 Medieval to post-medieval textile industry (Fig.2)

A gradual colonisation of the river foreshore by industries such as dyers, fullers and tanners is notable in documentary evidence from the 13th-century. The textile industry in particular appears to have strong associations with the site, and can be traced from the medieval period through to the 1600s. There was a distinct grouping of such workers on the Dukes Wharf site in the sub-leet of St Gregory where the names of several lanes and roads can be attributed to the processing of textiles.

The eastern part of Westwick Street was called Letestere Row (that is, Listers' or Dyers' Row) and it led to the Maddermarket immediately south-east of the site where dyestuffs were sold. Two-thirds of the dyers mentioned in the Enrolled Deeds of 1285-1311 seem to have worked in this area (Ayers 2003). This forms the most striking concentration of any occupational group within a particular area of the city (Kelly 1983). The Enrolled Deeds of 1285-1311 names several dyers on the western part of the site. A late medieval dye-house with furnaces/vats for dying was discovered nearby on Westwick Street in excavations undertaken by the Norwich Survey (NHER 159) and further excavations opposite discovered features associated with medieval textile processing (NHER 813).

A lane named 'Le Fulleres holes' or Fullershole ran from Letestere Row, off Shearing or Charing Cross, down to the river across the western half of the site. The same lane was also called Craketayles Lane during the medieval period. Shearing Cross was named after the shearmen who trimmed the nap of the cloth whilst Fullers were also cloth finishers who scoured and cleansed woollen cloth. Tawyers, who 'dressed the skimmers' pelts' were also recorded in the medieval deeds for this location along the Westwick river frontage. Fullershole was still present in the 18th century and was preserved as Long Lane into the 19th century. In the post-medieval period a fulling mill was set over a stream at Fuller's Hole which was in use during the 1600s (<http://www.norfolkmills.co.uk/Watermills/new-mills.html> - accessed Sept. 2007).

Again crossing the site from south to north, a little further east of Fullershole was Le Bleckstershole named after the 'bleksters' or bleachers, who bleached woollen cloth. Cloth bleaching was achieved either by leaving it tented outside in the sun or by soaking it in a solution of lye. This lane lay immediately upstream of the palace of the Dukes of Norfolk, constructed in the 16th century (Ayers 1991).

Between Fullershole and Bleckstershole was Smalebergheshole/lane named after one Roger de Smaleberghe and mentioned from 1296. This lost lane appears to have run down to the river through the centre of the site with two east-west lanes or hollow-ways joining Fullershole and Bleckestershole. The term 'hole' is probably derived from the great descent from the higher ground of the scarp down into the low flood plain of the site, this descent would have been even more pronounced in

the earlier medieval period when the dumping of large volumes of material to consolidate former marsh land began.

Documentary evidence suggests that the site was well occupied by numerous dwellings in the form of medieval messuages (a dwelling house along with any associated buildings and land). Several messuages are noted in late 13th and 14th century documents across the site along with a riverside staithe at Fullershole and a quay at Bleckstereshole. Several occupiers are named in various transactions of ownership of land and buildings across the site, for example in 1360 John de Bastwyk granted his entire messuage which stood in Fullershole along with all his utensils, leads, 'fullyngstokkes' etc. to one William Gerard (Kirkpatrick 1889, 55).

The continued presence of a textile industry at this site persevered into the 17th century was recorded in 1681 by a visitor to the palace who described its location as "*pent up on all sides both on this and the other side of the river, with tradesmen's and dyer's houses who foul the water by their constant washing and cleansing of their cloth*" (Kent 1932).

3.5 The Duke's Palace (NHER 463)

The following background represents a synthesis of previous research by Helen Sutermeister and Ernest Kent; primarily synthesised by David Adams (Adams 2005)

Acquisition

"The Duke of Norfolk had a palace that was a beautiful and noble structure when it was in its glory, and reputed to have been the largest house in England out of London".

By the early 16th century the Howards, a prominent family in British political and religious history, owned several residences in Norfolk, the most important of these being an estate outside Norwich at Kenninghall. Their principal residence in Norwich, on Surrey Street, was confiscated by the crown when the son of the 3rd Duke, the charismatic Earl of Surrey was accused of treason and executed in 1547. The 3rd Duke escaped a similar fate only by the timely death of Henry VIII.

The earliest reference connecting the Howards to the acquisition of land at St Andrew's Street is a conveyance of 1561 between Richard Bate and the 4th Duke, Thomas Howard (1537-1572). Marking the purchase of a third and final plot of land, this brought ducal holdings to around two acres. Thus it would appear the plot was purchased by 1561. A statement by Blomefield that the first plot of land was transferred by 1547 remains impossible to prove, though this would coincide with the forced abandonment of Surrey Street. Reference in the same conveyance to a

messuage named Holvestons (located to the east of the Dukes Wharf site) attests that some plots purchased by the Duke were certainly occupied at this time. The site purchased by the Duke for his new palace was by any criterion unsuitable for its proposed purpose. As discussed above, a visitor of 1681 memorably described "*A dunghole place though it has cost the Duke already 30 thousand pounds in building. . . for it hath little room for gardens and is pent up on all sides both on this and the other side of the river with tradesmen and dyers houses who foul the water by their constant washing and cleansing of their cloth*".

Brief Duke's Palace Timeline	
Post dissolution	Plots that were to be purchased by the Duke currently held by such persons as city bailiffs and members of parliament
1547	Possible date of first plot purchased by the Duke
c.1561	Purchase of third and final plot by 4 th Duke Thomas Howard, construction begins
1563	Deeds refer to a 'capital message new built with buildings, courts, orchards, gardens, ponds and vineyards'.
1572	4th Duke executed for planning to marry Mary Queen of Scots and his palace confiscated
1588-9	Extensive inventory describes the first palace as ranged around two, if not three courtyards, the principal of these with a fountain, also the presence of a tower.
1606	The palace returned to the Howard's
1640	Earliest reference to a bowling alley, later used as a room for dancing and dining)
c.1643	Palace seized by the city corporation during the Civil War
1660	Return of the 5 th Duke (also a Thomas) from abroad with the restoration of the monarchy
1664	Palace remarked as having returned to its 'former grandeur'
c.1671	Extensive rebuilding/remodelling initiated by the 6th Duke Lord Henry Howard. In the same year King Charles was entertained at the palace.
1681	Palace documented to be surrounded by 'tradesmen and dyers houses'
1696-1710	Final phase of Palace recorded in maps and drawings by Cleer (1696) and Kirkpatrick (1710) – an imposing courtyard building with a frontage onto St Andrew's Street and with north, east and west wings.
1708	The 8 th Duke Henry Howard ordered the entire destruction of the palace. The palace had fallen into a poor state of disrepair and stood mostly abandoned.
c.1711 to 1719	The greater part of the complex was demolished. The bowling alley was converted to a workhouse with an alehouse, the Duke's Palace Inn, at its southern end
1806	The workhouse was partly demolished and the remains incorporated into the much enlarged inn, which survived until 1968.
1821	Dukes Street Bridge and road constructed

The chosen plot lay within a city quarter dedicated to occupations requiring access to water such as tanning and textile preparation. Although textile finishing may have been a messy trade it was also a profitable one and the site acquired by the dukes was of considerable value. Throughout the later Middle Ages the area had attracted investment from the most wealthy city merchants. In the late 14th century the owners of neighbouring properties included no less than seven city bailiffs, one of whom, William Appleyard was to become Norwich's first Mayor. In the early 16th century the future site of the Palace was divided between three tenements, all in the possession of wealthy and important citizens. Bleckstershole appears to demarcate the western limit of the plot and therefore the extent of any palace complex on the Dukes Wharf site. On the east side of Bleckstershole, was a property owned by Sir William Clere, knight, which had formerly belonged to Richard Hoste, the sheriff of 1462 and Member of Parliament for the city. During the early post-medieval period it appears soils were imported to seal the noisome detritus generated by these activities and to further consolidate the land. Whether such efforts to improve the immediate environment were at the request of the Duke is not known.

To locate a principal residence within such a setting would have required compelling reasons. By the second half of the 16th century suitably appointed and

commodious sites within the urban core of Norwich were limited. Unpleasant as they might be, trades connected with the river, in particular textile production, were the economic mainstay of the city. Locations with river access were accordingly valuable, plots purchased by the 4th Duke for the palace previously being held by

city bailiffs and members of parliament. Until the Dissolution of 1536-40 many prime locations in the city had been occupied by religious orders such as the Carmelites at Whitefriars, the Blackfriars on St George's Street and the Austin Friars on King Street. Extensive land reclamation at these riverside locations had enabled substantial buildings to be raised on marginal ground. At the Dissolution, the Austin Friary on King Street had passed to the Paston family, rivals to the Howards. The Franciscan Friary at Greyfriars, though owned by the Howards after 1539 was sold to the city corporation in 1559, and Blackfriars had been bought by the city corporation for a possible grammar school. Thus the most suitable sites in the city were simply unavailable to the Howards. The only advantages offered by St Andrew's Street appear to have been its proximity to the city centre and the then fashionable cachet of access by water.

The first Palace: c. 1561

A deed of 1563 refers to *"a capital messuage new built with buildings, courts, orchards, gardens, ponds and vineyards"*. An extensive inventory of 1588-9 describes the first palace as ranged around two, if not three courtyards, the principal of these with a fountain. A west wing with three storeys contained thirteen rooms and access to a tower. The eastern wing, built over cellars, was of four storeys with eighteen rooms, with the main rooms, the *magna Camera et le chambre of presence* on the third floor, and an ambulatory running along the top floor. To the north opposite the entrance was a wainscoted hall with two stone windows running through three storeys. At the east end was a pantry with a closet above and further rooms above that. Behind this lay a domestic courtyard with kitchens along east and west sides. The eastern range of this courtyard, four storeys in height, is the likely range to be converted into the bowling alley. The north and west ranges of this same courtyard were each of two storeys. To the north again, possibly a third courtyard was occupied by a malthouse, bakery stables and three-storey stillhouse, a woodyard and wall with a water gate. Access by the river would have been by a staithe.

The 4th Duke was executed in 1572 for planning to marry Mary Queen of Scots and his palace confiscated, returning to the Howards only in 1606. In the early years of the civil war the palace was seized by the city corporation and the Duke obliged to vacate the 'association' or parliamentary town of Norwich. In the years following 1649 the Dukes remained abroad, returning with the restoration of the monarchy in 1660. A description of sequestration dated 10th July 1643 intimates a keen and perhaps understandable interest in the Duke's possessions. *"It is agreed that Mr Sheriff Rawley and Mr Linsey, two of the committee for the sequestracon, shall forthwith goe to the Duke's palace, attended with Mr Peter Thacker, Clerk to the sequestrators, & Jo: Braithwaite, William Mason the upholsterer & William Smith the pewterer, or such other persons as they shall think fit, to appraise an Inventory of all the goods in the said house & to sequester the said house and goods according to the Order for sequestracon; and Mr Wright is also to attend to them to open such locks, truncks and shelves as shall not be otherwise opened for them"*.

The second Palace: the rebuild of 1671-1672

Following the restoration of the monarchy in 1660, the 5th Duke (1627-1677), also a Thomas, returned to Norwich. Over a decade of neglect would presumably have

left the palace buildings in poor order. It soon appears to have been returned to its former grandeur, including altering the bowling alley range in the north-west of the complex into accommodation. Dr Edward Browne describes a visit of 1664. "*Jan 1st. I was at Mr Howards, brother to the Duke of Norfolk, who kept his Christmas this year at the Duke's palace in Norwich, so magnificently that the like hath scarce been seen. They had dancing every night, and gave entertainments to all that would come; he built up a room on purpose to dance in, very large, and hung with the bravest hangings I ever saw; his candlesticks, snuffers, tongues, fire shovel and irons were silver; a banquet was given every night after dancing. . . I have seen his pictures which are admirable; he hath prints and draughts, done by most of the great masters own hands. Stones and jewels, as onyxes, sardonyxes, jacinths, jaspers, amethysts & more and better than any prince in Europe. Ringes and seales, all manner of stones, and limmings beyond compare. These things were most of them collected by the old Earl of Arundel (The Duke's grandfather)*".

Extensive rebuilding of the palace occurred in around 1671. By this time the 5th Duke had descended into lunacy, his brother the 6th Duke Lord Henry Howard (1628-1684) assuming control. In the same year, Lord Henry entertained King Charles II.

Elevations of the palace by Kirkpatrick in 1710 shows a date of 1672 on the building facade, a date generally accepted for rebuilding (Plates 1 & 2). In 1671 John Evelyn, founder member of the Royal Society and friend of the 5th Duke visited Norwich. His apposite description of the Duke's vision was "*an old wretched building and that part of it newly built in brick is very ill understood. . .much better to have demolished all and set it up in a better place. . .and tho' neere a river yet a very narrow muddy one, and without any extent*". By the time of this visit the frontage to St Andrew's Street and a left (west?) wing was complete, with the provision of another wing and pavilion being organised. Evelyn is said to have advised against this venture, suggesting the Duke move to occupy the city castle, or divert his attention to rebuilding Arundel House on the Strand.

That the rebuilt palace was greatly influenced by Clarendon House is clear. Clarendon, designed by Sir Roger Pratt and built between 1664-7, was constructed with two main floors of near equal height, two wings projecting forward, rustic quoins and a pedimented frontispiece, the roof rising to a balustraded flat with a central domed lantern. Similarities between this description and Kirkpatrick's 1710 elevation of the Norwich palace are evident, as is the influence of classical architecture. The 7th Duke Lord Henry Howard (1654-1701) maintained a presence in the city, arriving in 1688 to bolster support for King James II. It seems the Dukes were received in a ceremonious fashion during their visits, with church bells rung and the mayor summoned to the Duke's presence. By 1696 it appears the palace, so recently rebuilt, was in disrepair. The traveller Celia Fiennes wrote of her visit to Norwich "*there is in the middle of the town the Duke of Norfolk's house of brick and stone with severall towers and turrets and halls ye looks well with large gardens, but ye insides all demolished only ye walls stand and a few roomes for offices but nothing of state or tolerable for use*".

A list of tenants made at the death of the 7th Duke recorded "*no part of the great house last built is let or used, but there are in that diverse small rooms and convenient lodgings, that may be separated from the best roomes*".

The same document also lists six lodgings given free to old servants and one valued at £12 per annum to be kept for the 7th Duke. A further eight rooms were rented as tradesmen's lodgings.

In the years of 1699, 1700 and 1705 the Duke's servants had staged "a show of comedies", the contents of which were clearly not to everyone's taste. In 1708 the city mayor Thomas Havers was greatly affronted by this event, and as Kent gently states; *"It cannot have simply been because of their blowing their trumpets"*. Included in the party that caused offence was Thomas Doggett, actor and joint manager of the Drury Lane Theatre. The mayor banned the comedians from the city, resulting in what was described as a fit of pique by the 8th Duke Henry Howard (1683-1732). In 1708 the incumbent Duke ordered the entire destruction of the palace. The perilous state of the palace being manifest, it seems this decision did not wholly result from the mayor's actions. Lord William Kingston recorded in 1710 *"There stands in the middle of the town (and in the lowest part of it) a noble shell of a house belonging to the Duke of Norfolk and built by his grandfather, but certainly the worst contrived business that was ever designed. It would have stood a great deal too low, yet not content with that they dug a hole to put it in the rubbidge of which cost a thousand pounds to be removed so that now 'tis impossible it should be finished and is entirely useless. Upon the least flood the water runs into the cellars and has weakened the foundations so much that (except it be pulled down) it will fall down in a year or twos time"*.

Demolition: Changes after 1711, the Workhouse and Inn

Within a year of these prophetic comments the demolition of the palace had started, an act spanning the years 1711 to 1714. The removal of 214,000 bricks, a parcel of broken hearths, seventy-one tons of lead, 1200ft of window glass and 14000 roof tiles was documented. Carved wood and plaster was also reclaimed. The Duke recouped £1,900 from the sale of salvaged items, a sum considerably less than the £30,000 spent on construction.

The destruction left only the bowling alley range and some ancillary buildings standing. The north end of the range was rented to the Guardians of the Poor in 1714 and converted to a workhouse. By 1806 the Guardians had relinquished the tenancy and the workhouse plot was auctioned in this year. An illustration published in 1807 attributed to the artist Eastgate shows the workhouse building with three floors, dormer windows, a large buttress and a roof requiring repair. The southern end of the bowling alley range had been converted to a public house soon after the Duke's departure, fittingly named the Duke's Palace Inn. Leased to a John Burgess in 1719 it closed in 1968 and was demolished in 1974.

The southern section of what is now Duke Street and the original bridge was created in 1821 following permission for construction being granted by an Act of Parliament in the previous year. In 1839 Bernard Howard the 12th Duke sold his remaining plot at St Andrew's Street, marking the end of the Howards' association with the site.

Previous Archaeological Excavations

Archaeological excavations by the Norwich Survey on the eastern side of Duke Street in 1974 (NHER 169/463) examined an area of c. 470 sq. m. The excavation was made prior to the redevelopment of part of the St Andrew's Street complex in

advance of a multi-storey car park to replace surface parking. This revealed the southern limit of a building identified as the bowling alley range and part of a possible kitchen block. The bowling alley is first mentioned in 1640 and is the earliest documented example in the country. Little trace of the palace was identified as modern cellars had severely truncated its remains. The substantial west wall of the bowling alley range was identified and a controlled explosion used to examine its foundations, marking, to the author's knowledge, a unique event in British archaeology. Wooden posts of Elm (*Ulmus* sp.) acting as piles for supporting a wall were recorded and it was established that before construction of the palace in c. 1561 the site was reclaimed from marginal land. One conclusion from the 1974 excavation was that subsidence, resulting from constructing on reclaimed ground, appears to have been partially responsible for the demise of the building (Adams 2003).

In 2003 an archaeological evaluation by the Norfolk Archaeological Unit (now NAU Archaeology) was carried out in advance of redevelopment of the site for a modern car park and residential flats (NHER 37652). This work recorded reclamation deposits of up to 3m in depth and extensive walls and surfaces of the bowling alley range were revealed.

3.6 The Anchor Brewery (NHER 26490)

(Referenced to Norfolk Museums and Archaeology Service, Brewing in Norwich, <http://oldenginehouse.users.btopenworld.com/rwhistory.htm> - Sept. 2007)

Breweries in Norwich were generally sited near the River Wensum, which provided a ready supply of water and also transport of raw materials. The larger breweries made good use of the river to expand their market. By 1836 there were no less than 27 breweries in the city and among them several names which were to lead the industry in Norwich for the next 120 years

Richard Bullard founded the Anchor Brewery at St Miles Bridge in 1837. By 1900 the brewery covered some 7 acres. The largest extent of the factory site is clearly marked on the 1905 OS map and extends over the western third of the Dukes Wharf site as far east as the former line of Long Lane, the fossilised route of a medieval lane known as Fullershole.

The total of 27 breweries in 1836 fell dramatically in the later nineteenth century as larger breweries continued to expand while smaller firms collapsed or were taken over. By the 1920s only four were left: Bullard's, Morgan's, Steward & Patterson and Youngs.

Brewing ceased at the Anchor Brewery in October 1966 and the buildings were used as a bottling plant until the plants closure in 1969 when the site covered 4 acres. The brewery chimney survived until 1982 when the remaining brewery buildings were converted into private dwellings known as Anchor Quay.

3.7 Duke's Palace Iron Works

(Referenced to The History of Riches and Watts, <http://oldenginehouse.users.btopenworld.com/rwhistory.htm> - Sept. 2007)

The 1st edition OS map of 1885 clearly depicts the site of a large '*iron works*' occupying the eastern half of the Dukes Wharf site, marked as the 'Duke's Palace Works'. Two contemporary Ironworks were located on the north side of the river, Barnes Ironworks opposite, and to the west of that the St Miles Norfolk Ironworks

of Barnards. The Duke's Palace Iron Works was established at this location by 1845 as Bullard & Watts. The firm was known as Howard, Riches & Watts from c. 1859 and later as Riches & Watts Engineers. They described themselves extensively in their finely illustrated 1859 Christmas catalogue as Engineers, Millwrights, Iron and Brass Founders, General Machinists and manufactures of improved high and low pressure expansive – condensing steam engines, non-condensing engines, corn mills, draining mills, water wheels etc. The site would have served them well as the river frontage was ideal for such heavy industry allowing bulky raw materials such as pig iron, coal or coke to be brought in easily whilst finished machinery could be despatched for UK and overseas destinations.

Possibly their final catalogue dates to 1893 which includes a range of steam engines which were highly regarded all over the world along with engineering, agricultural, brewery and milling related equipment. Few examples of Riches and Watts products have survived although the engravings in their superbly illustrated catalogues are a valuable source of Victorian engineering detail.

By 1900 the site is recorded as being occupied by the Norwich Electricity Co. Ltd in Kelly's Directory of Norwich. During some of the building work in the 1970s for the Eastern Electricity board what may be the foundations of a substantial steam hammer were purportedly uncovered.

3.8 The Duke Street Electrical Works

By the end of 1889 the Stamp Office Yard Electrical Station was getting close to its output limits and a new station was becoming necessary. On 25th January 1890 the Norwich Electrical Supply Company was registered and land on the site of the Dukes Palace Ironworks was bought for £5,100 and a station planned. Supply commenced from the Electric Light Works on 3rd August 1893 and the station proved highly successful (www.norfolkancestors.org/whscott/100yrs.htm - Sept. 2007). In 1902, the Electricity Committee of the Norwich Corporation took over the business. The factory is clearly shown on the 1905 OS map predominating in the north-east corner of the present site. This factory continued to develop and grow until the 1980s by which time the whole site was occupied as headquarters of the Eastern Electricity board.

The buildings which currently occupy the site are a mixture of styles constructed throughout this period. The oldest of these buildings are located at the Duke Street frontage in the south-east corner of the site and were designed by E.T.Boardman c.1900 (Seaborn 2007). Other extant buildings on the site include the concrete framed office building *circa.* 1975, also on the Duke Street frontage, and the former sports and social club which appears to be a *circa.*1950s rebuild of a building which first appears on the 1905 OS plan. The largest building on the site is of four storeys, with a five story block at the Dukes Street frontage, and a basement floor at river bank level sited hard against the river. It was completed in 1940 to replace the former Electric Light Works building designed by E. Boardman (Seaborn 2007). The most recent building appears to be the Meter Station Store built *circa.*1984 for the storage and maintenance of electrical equipment. This building is situated in the north-west corner of the site. It is constructed of brick in a 19th century industrial style on raised pillars with a car park below. Since its abandonment the whole exterior of the building has been utilised as canvas for a

striking art installation by Rory Macbeth in the form of the entire text of Sir Thomas More's classic social critique *Utopia*.

3.9 Cartographic evidence for the development of the site (Figs. 2 to 9)

Besides the modern Ordnance Survey maps dating from the 1880s, Norwich is provided with a good series of historic maps dating from the mid 16th century. A review of the major cartographic sources available which depict the development of the site is summarised below:

- *1558 Cuningham's Plan (view of Norwich) and 1581 Hoefnagle's copy (Fig. 3)*

Although this view of Norwich appears very detailed, its known omissions and inaccuracies make it unreliable. The site of the former stone cross at Charing Cross is depicted. The area of the site can be surmised with a central open area with houses along the riverside and on the higher ground along the modern streets of Westwick, Charing Cross and St Andrews. Two lanes can be observed to fall down to the river which may equate to Fullershole and Bleckstershole.

- *1696 Henry Cleer's map (reproduced in Kirkpatrick Streets and Lanes (ed) Hudson 1889) (Fig. 4)*

This fairly schematic plan shows a simplistic façade at the location of the Dukes Palace. The western limit of the palace grounds is clearly demarcated by a lane which is the likely route of Bleckstershole near the eastern end of the development site. The route of Fullershole is also depicted running north to the river off Charing Cross.

- *1789 Hochstetter (Anthony Hochstetter produced the first accurately measured plan of Norwich) (Fig.5)*

Hochstetter's plan shows the fossilised remnants of Fullershole, named Fullers Lane, as an alley still reaching the river amongst encroaching yards and buildings. The whole area of the site is occupied by buildings with alleys and yards between. An open channel exists around the southern side of Coslany Bridge, the outflow of which crosses the very north-western corner of the site. This is a possible location for the fulling mill believed to be located at Fullershole in the 1600s. A 1975 redraw of Hochstetter's plan with the additions of major features in late medieval times (Campbell 1975) places the Dukes Palace in its most likely position based on contemporary sources. The 17th century palace fronts onto Wymer Street (now St Andrews Street) opposite the Maddermarket. The north-west corner of the palace is depicted in the south-east corner of the Dukes Wharf site with ancillary buildings further east. It is possible that the alleyway running close to the possible western limit of the palace site follows the fossilised route of Bleckstershole.

- *T. Peck's Map of 1802*

This fairly simplistic plan shows the continued presence of Fullershole, now known as Fullers Lane and the continued presence of the channel cut mentioned above. It was just after this publication that Duke Street and Dukes Bridge were completed.

- *Morant's Map of 1873 (Fig.6)*

The layout of buildings, alleys and yards is similar to that of Hochstetters 1789 plan. The full line of the alley following Bleckstershole is now lost although the route of Fullershole survives as Long Lane. The eastern limit of the site is now filled by larger buildings set off Duke Street. A larger yard has been created in the north-east of the site; it is possible that this was the initial location for the Iron Works established at Duke Street in 1845 (see below). The Bullard's Anchor Brewery (est. 1837) now occupies the very western end of the Dukes Wharf site, stretching to the west as far as St Miles bridge.

- *OS 25" map 1st Edition 1885 (Fig.7)*

Bullard's Anchor Brewery has now extended as far as Long Lane. The eastern area of the site is now fully occupied by the Duke's Palace Iron Works (est. 1845). Between these two industrial complexes survives a cramped area of yards marked as Gooch's Yard and Long Camden Yard.

- *OS 25" map 1905 (Fig. 8)(and successive editions)*

The brewery and yards are little changed although the northern end of Long Lane now dog legs to the west before reaching the riverside. The Iron Works has since been demolished (c.1900) and replaced by the Electrical Works (est.1890) which occupies the entire north-east corner of the site.

Successive OS maps record the continued development of the site in the 20th century. By 1928 the surviving yards at the southern edge of the site have diminished to be replaced by larger factory buildings associated with the Electricity Works. By 1965 the Eastern Electricity Board buildings occupied all the area of the site to the west of Long Lane and the Anchor Brewery factory to the west (Fig.9). The western limit of the site was established as part of the Electricity Board complex in the 1980s following the demolition of the brewery in 1983.

- *The Royal Air Force National Aerial Survey*

The 1946 Aerial Photographic Survey shows the area of the site to be occupied by the industrial buildings of the Anchor Brewery to the west and the Electricity Board building to the east. A large depot building (present from the 1940s into the 1970s) can be seen in the centre of the Electricity Board complex.

3.10 NHER (Fig. 1)

The Norfolk Historic Environment Record has been consulted with reference to the site of the proposed development. A search was conducted of the records surrounding the site and a summary of the most relevant records is shown below (*these extracts include direct quotes from the NHER*). There were a total of 176 entries within a 200m radius of the site although notably no entries for the area of the development site itself, more indicative of the modern industrial past of the site than any reflection on the sites true archaeological potential.

Archaeological Interventions (x20)

NHER	Type	Location	Period
147	Excavation	29-31 St Benedict's Street	Medieval
Excavations here in 1973 (Norwich Survey) revealed medieval houses on the western part of two tenement blocks, with a yard on the eastern part (13th-14th centuries) with a probable 10th or 11th century timber-framed building beneath.			
NHER	Type	Location	Period
159	Excavation	The Bottling Plant, Westwick Street North/Coslany Street	Late Saxon/Medieval/Post-medieval
In 1972 this site was excavated (Norwich Survey). There was slight evidence for scattered industrial and domestic use of the site in the 11th century, but the first general colonisation of the marsh began in the late 12th century/early 13th century with the building of a series of clay-walled structures. Property boundaries established at this time survived into the 19th century. The clay buildings were demolished in the mid-13th century. The site was then made-up with clay and silt on which stone-walled structures were built. These included a series of furnaces/vats for dyeing. In the 16th century the buildings fell into decay, and squatters occupied the site. Finds collected from the site include pottery from Late Saxon to post medieval periods and some 'Roman' tile.			
NHER	Type	Location	Period
160	Excavation – Medieval + Post-medieval pits	Westwick Street South	Medieval
In 1972 the car park of Watney Mann Social Club was subject to archaeological excavation to assess for evidence of Saxon occupation. Several sherds of Late Saxon pottery (Thetford Ware) were found in the fills of later pits (medieval to post medieval).			
NHER	Type	Location	Period
169	Excavation	Former site of Duke's Palace, Duke Street	Post-medieval
This site was excavated in 1974 in advance of an extension to the multi-storey car park here being undertaken by Norwich City Corporation. The excavations discovered massive brick and flint foundations, some of which were supported on timber piles. The Palace was demolished in 1711 and 19th century building work destroyed any above ground remains that survived this process.			
NHER	Type	Location	Period
308	Evaluation – multi-period site	26 Coslany Street (Hoppers Yard)	Late Saxon/Medieval/Post-medieval
In 1976 a machine excavated trench revealed a sequence of Late Saxon rubbish pits associated with a working surface probably used for smelting iron ore. A considerable quantity of tap slag was found in the pits. The section revealed a number of building levels. There was no real dating evidence but the section suggested a typical development from a two-roomed clay lump house on the street frontage and at right angles to it, rebuilt in flint rubble in around the 16th century.			
NHER	Type	Location	Period
392	Chalk Workings	Westwick Street/Coslany Street Junction	?Uncertain
In 1969 chalk workings were found at the bottom of a pipe trench. The workings appeared to represent the junction of two shafts and two pieces of antler were found in the tunnel wall. The date of the tunnels and the antler pieces are unknown.			
NHER	Type	Location	Period
393	Find Spot	10 Duke Street (Hoppers Yard), Formerly Barnards Yard	Prehistoric/Medieval/Post-medieval
In c. 1953 a witch bottle containing iron nails and pins was found during the process of pulling down the Duke's Palace Ironworks located here. In 1976, half of a roughly chipped Mesolithic flint axe/pick was found on the same site. Excavations along Duke Street frontage revealed fairly clean silt deposits above the water table. At an unspecified date a dump of horn cores was recovered from the riverine silts.			
NHER	Type	Location	Period
716	Excavation	49 to 53 Colegate	Late Saxon
A test hole and foundation trenches dug on the Radio Broadland site in 1984 noted Late Saxon pottery fragments and evidence of contemporary iron-working.			
NHER	Type	Location	Period
756	Excavation	21 to 23 St Georges Street (rear)	Late Saxon/Medieval
Excavations in 1986 noted evidence of Late Saxon and medieval settlement. Constraints of the site meant that work had to cease at a depth of 5m, when only 12th century levels had been reached. These deposits consisted of homogeneous black silts and rubbish, similar to levels encountered above river marsh elsewhere in the city. The location of such deposits here, however, at some remove from the River Wensum, heightens speculation that the line of St George's Street south of Colegate may represent an early outfall of the Muspole stream.			
NHER	Type	Location	Period
813	Excavation	Westwick Street	Medieval
Excavations in 1988 revealed evidence of medieval industrial activity associated with textile production during the 13th-15 th centuries. This included hearths, cess pits and a rectangular post structure covering a possible working area. Post medieval activity included a brick and flint lined pit with three arched openings, and one room of a brick tenement.			
NHER	Type	Location	Period
875	Watching Brief	Norwich Playhouse, The Gun Wharf	Medieval
A watching brief in 1992 during the conversion of a former maltings to a theatre noted flood deposits and made up ground for the foundations of a medieval building.			

NHER	Type	Location	Period
26435	Evaluation – multi-period site	Coslany Street (west) [Centroid TG 2275 0893]	Late Saxon/Medieval/Post-medieval
An evaluation was carried out in 1995 in advance of development work on a large area north of the River Wensum. Late Saxon, medieval and post medieval pottery fragments, animal bone and horn cores were recovered from the site. The foundations of 18th and 19th century buildings were also revealed, overlying older structures, and a former canalised river channel crossed by an archway. The remains of cellars were infilled in the early 20th century.			
NHER	Type	Location	Period
26503	Evaluation – multi-period site	No. 7 Oak Street	Late Saxon/Medieval/Post-medieval
An evaluation excavation was carried out in advance of redevelopment in 1998. The entire site had formerly been low-lying and wet. Massive dumping of industrial waste from the 11th to 12th century onwards helped reclaim the area along the street frontage during the medieval period (included large quantities of iron slag and 12 th to 14 th century pits were also present). Substantial houses were erected on further consolidation layers from the 15th century onwards. Medieval buildings with flint walls later gave way to brick-built houses or were extended in brick in the early post medieval period. The built-up area grew; extending west to the river by the 18th century. The site was cleared after many buildings were destroyed by bombing in 1942.			
NHER	Type	Location	Period
26525	Evaluation – multi-period site	Former Start-Rite Factory	Late-Saxon/Medieval/Post-medieval
An archaeological evaluation was undertaken in 2003 in advance of redevelopment work. The earliest deposits on the site consisted of water meadow soils of Late Saxon date, with industrial and domestic debris occurring within them. By the early Medieval period the surface levels had been raised and processing pits were cut into these dumped deposits. There is evidence to suggest that such processing included the soaking of horncores and tanning. Other local industries which dumped their waste on the site included iron smelting, animal slaughtering, processing and skinning. During the 18th and 19th centuries cottages with cellars were built along the frontage of Duke Street.			
NHER	Type	Location	Period
26535	Excavation	12 Oak Street	Late Saxon/Medieval
Archaeological excavations in 2000 and 2001 in advance of housing development revealed large quantities of Late Saxon and medieval material in this area. This revealed Late Saxon features including pits and gullies, sealed by surfaces laid down in the 11th and 12 th centuries. From the finds recovered, these surfaces appear to have been used for intensive industrial activity including ironworking, smelting and smithing. This phase of industrial activity appears to have drawn to a close in the late 14th century. Attempts were made to consolidate or raise the ground level in this area in the 13th to 15th centuries. There appear to have been two main phases of occupation, the first dating from the 10th to 12th centuries and characterised by a sequence of timber structures fronting onto St Miles' Alley, the second dating from the 11th to 14th centuries and evidenced by a series of pits, perhaps indicative of tanning activities. The area appears to have been abandoned in the 14th or 15 th century, and re-occupied during the 15th or 16th century, again by timber structures fronting onto St Miles' Alley, which were later replaced by brick and flint buildings.			
NHER	Type	Location	Period
26587	Evaluation – multi-period site	New Mills Yard, Oak Street	Late Saxon/Medieval/Post-medieval
Excavations in 2001 revealed an old channel of the River Wensum overlain by 18th and 19th century demolition layers. Closer to the street frontage, industrial activity (a tannery) dating to the 13th and 14th centuries was found, interleaved with a sequence of reclamation/refuse dumps which were abandoned from the 15th to the 17th centuries. Cellared buildings appeared towards the 18th century and beyond.			
NHER	Type	Location	Period
37379	Excavation	50-54 Westwick Street	Late Saxon/Medieval/Post-medieval
Archaeological evaluations in 2002 showed that the entire site had been used for industrial activity in the Late Saxon and medieval period before being redeveloped in the 16th century. Saxon structures related to iron working probably lay close to the river marshes and part of a possible medieval tanning pit was found in a trench dug close to the river. This shows an exploitation of a riverine location at during these periods. Finds collected from the site include medieval leather remnants.			
NHER	Type	Location	Period
37652	Excavation	Duke Street Car Park	Medieval/Post-medieval
Excavations in advance of development work to build a new multi-storey car park in 2003 revealed part of the Duke's Palace complex, including the remains of a bowling alley, believed to date from the early 17th century (one of the earliest documented examples in the country). Following the departure of the Dukes of Norfolk in 1711, the bowling alley was converted for use as a workhouse, again notable for being amongst the earliest in the country. Elements of the workhouse were also recorded, along with the remains of 19th century mercantile buildings. These features have been preserved in situ beneath the current structure.			
NHER	Type	Location	Period
40367	Evaluation	Former Start-Rite Factory	Prehistoric/Late-Saxon/Medieval/Post-medieval
In 2004 a watching brief and evaluation was conducted beside the River Wensum on part of the former Start-Rite Factory site. The earliest features consisted of a Late Neolithic or Early Bronze Age pit cut into fluvial river sand. By the 11th to 14th centuries, large-scale dumping of dredged deposits had occurred across the site, perhaps as a result of planned reclamation of marginal land beside the river. Preserved timber elements (13 th to 14 th century) strongly suggestive of a revetment or staithe constructed to protect the bank from erosion and to enable goods to be loaded and unloaded, were encountered near the modern river edge. There is evidence to suggest that local industries, including iron smelters, animal slaughterers, processors or skimmers dumped their waste on the site. Fragments of medieval leather off-cuts were recovered from the riverine dumping. It is also probable that hornworking occurred on or near the site. A significant phase of ground build-up occurred during the 15th and 16th centuries, probably in an effort to reconstitute the marginal land. Several waste pits, a brick mortar culvert, and a foundation trench for a boundary wall, truncate this made-up ground. During the 18th and 19th centuries cellars were built along the frontage of Duke Street, which were demolished and replaced by factory buildings in the later 19th century.			

NHER	Type	Location	Period
44458	Excavation	21-23 St Benedict's Street	Medieval/Post-medieval
In 2006 archaeological evaluations were carried out at this location. A small unstratified Neolithic flint and Late Saxon pottery were recovered in residual contexts. However, the majority of features were of medieval date and included pits, a possible cellar, building footings and floor surfaces. A possible 15th or 16th century undercroft was also identified in the southeast corner of the site.			

Sites of Historic Interest (x5)

NHER	Type	Location	Period
463	Palace	Site of the Palace of the Duke of Norfolk	Post-medieval
The Duke's Palace was built in 1561 and underwent a second build stage in 1672. The main building was demolished in 1711 but the associated bowling alley survived until the 1960s. It is claimed (17th century documentary source) that the alley was the first in Britain.			

NHER	Type	Location	Period
567	Former Church (St Margaret)	St George's Street	Medieval
The site of a medieval church, later a hermitage chapel located on the west side of the street. Known as St Margaret at Newbridge: St Margaret at Colegate. The Parish was depopulated by the plague of 1349 and the church ceased to be parochial, the Prior and Convent of Norwich converting the churchyard into a garden and making the church a hermitage chapel. In the mid 19th century; the site was occupied by Waton's brewery.			

NHER	Type	Location	Period
640	Former Bridge/Find Spot	Dukes Palace Bridge	Post-medieval/19 th -century
The original bridge dates to 1822 and is made from cast iron. In 1972 it was dismantled and this process uncovered several pits containing horn cores and a fragment of a post medieval jug. It was proposed that the dismantled bridge was sold for scrap but it was saved from this fate in 1991 when it was re-erected at the Castle Mall shopping centre. Horn cores and a bellarmine jug have been recovered from pits on the north-east side of the bridge during the 1972 rebuild and the street widening.			

NHER	Type	Location	Period
26490	Brewery	Anchor Brewery, Coslany Square	19 th -century/Modern
This former brewery was converted to housing in 1983-84. The yellow brick range in Coslany Street has a reconstructed early 19th century Doric shop front and has a date plaque reading 1773. To the right is a taller building of red brick with yellow details and a slate roof. The rounded corner to Westwick Street flanks a nine window range and at the rear is the Vat House. All these structures are listed as Anchor House (Grade II Listed). The former chimney base was demolished in 1983 and was the last industrial chimney of value in Norwich.			

NHER	Type	Location	Period
48272	Brewery Counting House	6, Coslany Square	19 th -century
This was formerly the counting house for the Anchor Brewery, but is now maisonettes. The building dates to the mid 19 th century and is made from painted brick with a slate roof (Grade II Listed). The panelled round-headed double-leaf doors have rusticated architrave.			

Buildings (i.e. Listed Buildings, Churches and Undercrofts etc.) (x18)

NHER	Type	Location	Period
247	Church	St Gregory's Church, St Gregory's Alley	Medieval/Post-medieval
This former parish church is now redundant and used as a Centre for the Arts. It dates to the 14th and 15th centuries and is made from flint with stone and brick dressings. This church contains medieval wall paintings including a huge painted figure of St George and the Dragon made by a livery stable keeper. There are three small round windows in the belfry stage of the west tower which may be Saxon in origin.			

NHER	Type	Location	Period
583	Church	St Laurence's Church, St Benedict's Street	Medieval/Post-medieval
This former parish church is now redundant. It replaced the one at this location mentioned in the Domesday Book and has been subject to Victorian restorations. The top of the tower was used as a tank for water in 1584. Additionally, the clock here is the oldest in Norfolk and is believed to come from Hexham Priory and therefore may have monastic origins.			

NHER	Type	Location	Period
593	Disused Church	St Michael's ('St Miles') Church, Coslany	Medieval/Post-medieval
Church of St Micahael Coslany, now disused, dating to the late 14th, 15th and early 16th centuries. It is of flint and brick with stone dressings, with an ashlar faced north aisle and chapel and a slate roof. The building consists of a four stage west tower of about 1425, nave and chancel, north and south aisles and a south chancel aisle and north chapel.			

NHER	Type	Location	Period
606	Building (Grade I)	Strangers Hall Museum, 6 Charing Cross	Medieval/Post-medieval
This former house is now shops and a museum. The earliest building here dates to around 1320-32 and the surviving undercroft relates to this house. Over time the site was owned and built upon by a succession of wealthy merchants. The most impressive structure is the great hall built by W. Barley in 1450 with a new wing added by T. Cowse in the later 15 th century. Much of the current exterior, including the street range, dates to the 16th century. The ground floor is made from flintwork of this period and the first floor is timber framed and jettied. The building later fell into disrepair and was saved from demolition and restored in 1899. In 1994 the removal of render around window of 1530 revealed an original window frame, with shutter hinge and plaster reveals.			

NHER	Type	Location	Period
614	Bridge	St Miles or Coslany Bridge	Medieval/Post-medieval/19 th -century
This river bridge was originally built in 1186-1210 from timber (Coslanie Bridge). It was rebuilt in stone in 1521 and then in cast iron in 1804 by James Frost. It is a single span example with simple parapet rails. It may well be the oldest metal bridge in East Anglia and is made from five bolted sections with stone abutments (Grade II Listed)			

NHER	Type	Location	Period
703	Conduit	Gibson's Conduit (St Lawrence's Well), Lower Westwick	Post-medieval
This conduit was built in 1576 and survives in a moderate condition. However it was reset in a boundary wall during the 1980s.			
NHER	Type	Location	Period
763	Post medieval cellar and well	6 St Benedict's Street	Post-medieval
This property has an 18th century brick and flint cellar and a flint and clunch well of similar date.			
NHER	Type	Location	Period
853	Undercroft	St John Maddermarket	Medieval/Post-medieval
In 1953 a 15th-16th century brick vault roof belonging to an undercroft was recorded in this area.			
NHER	Type	Location	Period
26030	Building - undercroft	2 Charing Cross	Medieval/Post-medieval
The shop and museum store here have an associated medieval undercroft. The building (Grade II Listed) has a rendered timber frame at first and second floor level and a pantile roof. Six bays of the building face Charing Cross while two bays face Maddermarket. The 15th century undercroft is made from brick and has two bays with single order diagonal ribs.			
NHER	Type	Location	Period
26180	Building (Grade II)	18, 20 and 20A, St Benedict's Street	Post-medieval
The former use of these properties is not known but they now operate as a shop and workshop. They date to the early to mid 16th and 18th century. Built from flint rubble, rendered brick and have pantile roofs. Nos 18 and 20 have 20 th century shop-fronts to the ground floor.			
NHER	Type	Location	Period
26197	Building (Grade II)	7, St Johns Alley	Post-medieval
The former use of this property is unknown, but is now a shop. The building dates to the late 17th century but was raised in the 18th century.			
NHER	Type	Location	Period
26199	Building (Grade II)	20 St John Maddermarket	Medieval/Post-medieval
The former use of this property is unknown but now operates as a shop. It dates to the late 16th century but was raised in the 18th century.			
NHER	Type	Location	Period
26235	Undercroft	35, St Benedict's Street	?Medieval/Post-medieval
In 1974 a possible medieval/post medieval undercroft was discovered at the premises of the ironmonger's shop located here.			
NHER	Type	Location	Period
26243	Building (Grade II) - undercroft	4, St Benedict's Street	Medieval/Post-medieval
The east wall and ground floor ceiling of this property survive from a 16th century building that was set at right angles to, and behind an early 19th century street range. Beneath the house are possible remains of a medieval undercroft, parallel to, and on, the street line.			
NHER	Type	Location	Period
26244	Building (Grade II) - undercroft	14 St Benedict's Street	Medieval/Post-medieval
This 19th century building (Grade II Listed) sits above three side chambers, each with a pointed barrel vault profile. There is a blocked doorway adjacent to the blocked chamber in the wall away from the street. In the west wall there is a deep wall arch, possibly representing a partly blocked, fourth side chamber. The cellar is positioned on the street line. The side chambers are associated with a 15th century cellar.			
NHER	Type	Location	Period
26310	Building	10 St Gregory's Alley	Post-medieval
This building probably dates to the 17th century. It has two storeys plus an attic. A 19th century rear extension has been added and internal alterations were made in the 20th century.			
NHER	Type	Location	Period
48247	Building (Grade II) - undercroft	4 St Benedict's Street	Medieval/Post-medieval
This former public house is now a shop. It dates to the late 18th century but has the remains of a 15th century undercroft. The red brick construction stands three storeys high and has three bays with a carriage entry beneath an arch at the right hand side. A later shop front with a central recessed door has been added. Extending beneath the entire length of the building is a brick built undercroft which has been partly destroyed by the 18th century rebuilding.			
NHER	Type	Location	Period
48258	Building (Grade II*)	20 Charing Cross	Medieval/Post-medieval
The former use of this building is unknown but it is now a shop and museum store with a 15th century undercroft. The shop and museum store are built from a rendered timber frame with a pantile roof. A set of loading doors are set at the extreme right. The hipped roof undercroft is made from brick and set out in two bays with single order diagonal ribs.			

4.0 Methodology

(Fig.2)

The objective of this evaluation was to determine as far as reasonably possible the presence or absence, location, nature, extent, date, quality, condition and significance of any surviving archaeological deposits within the development area.

The results of the window sampling survey (Adams 2007) were used by Norfolk Landscape Archaeology to inform on both the number and location of trial trenches in this subsequent phase of evaluation.

The Brief required an archaeological survey by trial trenching amounting to ten 4x4m trenches (c.2% of the proposed development area). Seven of the trenches were to be located on open ground in a pre-demolition phase of works. The remainder are located along the riverside and Duke Street frontage and will be excavated in a second phase following the demolition of the extant buildings.

During this first phase of works Trench 7 was found to be located over a defunct factory basement and following consultation with NLA is to be relocated further north, closer to the river frontage, to be excavated post-demolition.

Machine excavation was carried out with a 13 ton and a 3 ton hydraulic 360° excavator using a toothless ditching bucket under constant archaeological supervision. A toothed bucket and breaker were utilised in Trenches 1 to 3 to break-out concrete surfaces and 19th-20th century foundations where appropriate. Due to the depth of excavation sheet shoring with hydraulic beams were employed in Trenches 3, 5 and 6.

Spoil, exposed surfaces and features were scanned with a metal detector. All metal-detected and hand-collected finds, other than those which were obviously modern, were retained for inspection.

All archaeological features and deposits were recorded using NAU Archaeology *pro forma* sheets. Trench locations, plans and sections were recorded at appropriate scales and colour, monochrome and digital photographs were taken of all relevant features and deposits.

All temporary benchmarks used during the course of this work were transferred from an Ordnance Survey benchmark with a value of 10.54m OD, located on the junction between St Benedict's and Westwick Street.

The weather was extremely variable for the duration of the project with heavy rain storms on several days. Percolation into open trenches in the form of through-flow was particularly severe on these occasions and the water table was reached in the majority of the trenches. A 3" diaphragm pump was necessary to control the levels of water in Trench 3 in particular.

5.0 Results

The results are given here in Trench no. order, each followed by a brief interpretive discussion:

Trench 1

(Figs. 10, 11, & 22. Plate 3)

Trench 1 was located in the south-west corner of the site and was carefully placed to avoid live electrical services. A modern concrete surface up to 0.2m thick lay just below the asphalt. Modern overburden was present to a depth of 0.5m to 0.8m. The western half of the trench consisted of 19th to 20th century brick cellars infilled by demolition rubble. Due to the high level of chalk geology on one side of the trench and the presence of extant cellars a shoring methodology was unsuitable. Instead baulks in the north-eastern corner of the trench were reduced of modern overburden to create a suitable stepping solution. This allowed for an investigative slot to be safely excavated by hand.

Saxo-Norman Features (11 to 12th-century)

Chalk Quarrying and infilling

Natural chalk ([61]) was encountered in the southern half of the trench at a minimum depth of 3.35m OD (c.1.06m below the modern surface); although this chalk appeared to be heavily truncated by deep quarry activity in the majority of the trench to a depth of c.1.41m OD (c.3.03m below the modern surface). The base of the activity appeared fairly level, perhaps indicating that quarrying had taken the form of a stepped terrace excavated into the slope of the chalk scarp of Westwick Street/Charing Cross. Initial tips or backfills consisted of fairly sterile sands and sandy soils with some thin layers of chalk waste ([303] to [308]). Some of the sandy deposits contained large nodules of flint of irregular shape which measured up to 0.4m in length. Several of these nodules appeared to have had protrusions deliberately removed by hard strikes, possibly to test the flint for use as a building material or simply as accidental damage inflicted during quarrying. Two successive pits, primarily containing chalk waste, truncated this initial backfill ([309] & [291]).

Sealing the fairly sterile chalk waste associated with the quarry was a 0.4m deep sequence of chalk waste deposits which tipped down slope from north-south ([290], [289] & [280]). A few sherds of Saxo-Norman dated pottery and a Late Saxon bone pin beater (SF 25) used in textile weaving were recovered from these tipped layers.

Postholes

Truncating the chalky tips was a post-slot ([281]) and a small post-hole ([283]). Forty-three sherds of Saxo-Norman dated pottery of a 10th to 11th century date were collected from the post-slot which may have served as packing around the base of a sub-rectangular post set at its northern end.

Metalworking waste

Sealing the two posthole features was a tipped deposit of charcoal rich clay-silt up to 0.27m deep ([75]). This deposit also contained flecks and lumps of fired clay and forty-four pieces of tap slag. One-hundred and seventy-four sherds of Saxo-Norman dated pottery were collected from this dark deposit, which appears to include residual waste associated with iron-working.

Waste-pits and further tipping

Two pits truncated layer [75] in the south-east corner of the trench. The initial pit measured 0.74m in depth and contained chalk waste rich, clay-silts and silty-loam ([62]). Residual charcoal, butchered animal bone, Saxo-Norman dated pottery sherds and oyster shell collected from the pit are characteristic of midden waste. The second pit truncated the upper fill of the first and contained a dump of soft peat-ash ([58]).

Further tips of chalk waste and chalk laden clay-silts sealed these pits ([72], [73], [74] and [92]). This sequence of deposits also contained numerous sherds of Saxo-Norman dated pottery and a further carved bone item was discovered in the form of a finely ornamented cylindrical object which may be associated with manuscript production, perhaps as a burnisher (SF 22, Fig.32).

Medieval Features (12th to 15th-century)

Tips/Make-up and Pits

A shallow tip of clay-silt ([89]) containing moderate inclusions of charcoal and chalk with occasional burnt clay flecks may be the first deposit of medieval provenance. A fragment of medieval ridge tile and several sherds of medieval pottery were collected from this deposit.

Three medieval pits ([76], [109] & [111]) were discovered at this horizon, two of which truncated layer [89]. Numerous sherds of pottery collected from these pits suggest a late-12th to 13th-century date for the activity. Of the pits one shows signs of post-packing using chalk and flint to support an upright post ([76]). What is believed to be a limestone oil lamp (SF 34) was recovered from this feature. Pit [109] had a slightly stepped edge and contained only a single well-mixed backfill. The larger of these features ([76]) was discovered in the north-east corner of the trench and formed the south-west corner of a larger, possibly sub-rectangular pit. This pit contained a single dump of homogenous ashy, clay-silt ([77]).

Above these pits was a sequence of fairly thin layers which sloped gradually from south-north. These layers consisted mostly of chalk laden silts and very ashy silt loams along with layers consisting predominantly of reddish-brown peat-ash ([66] & [68]). These layers were truncated in the south of the trench by a fairly large pit measuring up to 0.8m in depth ([42]). This pit contained four layers of crushed mortar ([43], [45], [47] & [49]) laminated between layers of chalky sandy-silt and sandy-clay ([44], [46] & [48]). The firm nature of these banded layers may suggest that the pit was carefully tamped as it was backfilled to provide a firm pad or footing on otherwise fairly soft ground; this pit truncated through a sequence of thin deposits on its western side which may represent the highly truncated infills of a midden pit (deposits [50] to [57]). Many of the deposits were of a fairly organic nature with some stained by ash and cess; these soft layers were probably made

thin from compression. Sherds of medieval pottery and fragments of medieval brick were recovered from these features.

Brick Conduit and Possible Floor

Identified primarily in the south-facing baulk section of the trench were the remnants of a small south-north brick conduit. This feature had been truncated by the construction of the 19th-20th century cellar elsewhere in the trench. The sides of the conduit were constructed of mortar bonded medieval bricks of late 13th to 14th-century manufacture. The channel contained a mottled silty-sand in which pieces of brick and mortar from the conduits destruction were evident; any capping of the channel had been removed by modern levelling activity.

The brick conduit was associated with a few thin layers of gravel and chalk make-up ([84], [85] & [86]) which supported the possible remnants of a brick surface ([101]). These bricks were of medieval manufacture (13th to 15th-century) and although disturbed by later activity appeared to be *in-situ*.

Modern Features (19th to 20thth-century)

The western half of the trench consisted of 19th to early 20th century brick cellars ([38] + [39]) infilled by demolition rubble ([40]). Above this was a levelling horizon associated with the demolition of the 19th-20th century structure ([41]) and the formation of a fairly level modern concrete surface. The asphalt surface of the car park lay directly above the concrete.

General Discussion

Trench 1 appears to be the focus of Late Saxon activity so far encountered on the site. A total of 302 sherds of Late Saxon pottery were recovered from the trench accounting for c.82% of the Late Saxon assemblage collected during this phase of the evaluation. The majority of these finds were collected as residual material from the infills and activity associated with chalk quarrying against the natural scarp. This quarrying appears to have taken place in the late 11th century in the Saxo-Norman period at a time of great change in the city, when the Norman vigour for building included such large programmes as the Castle, the Cathedral and many other ecclesiastical and some secular buildings. The scarp along Westwick/Charing Cross may have provided a useful source of chalk and of flint freestone within close proximity to both the city centre and the river, which could have aided greatly in the transportation of materials. The post-slot and posthole may well have some association with this quarry activity.

Once complete the open excavations received imported tips of waste which included ironworking waste. This material may have only travelled a short distance, coming from local sites such as the one discovered at 50-54 Westwick Street (NHER 37379) that revealed intensive industrial activity of a contemporary date. This waste and the subsequent presence of pits, whether for structural purposes or midden waste, demonstrate that the quarrying was fairly short lived and the area was soon made use of by local inhabitants to dispose of unwanted refuse. This activity appears to have continued into the medieval period when further pits and ash laden waste were evident, with minor structural evidence in the form of one or two posts.

The final phase of medieval activity makes use of late 13th to 14th century brick and was established in the form of a small water conduit associated with a possible brick floor, suggesting that the slope was now closer to being level and that some form of occupation had made use of this formerly quarry scarred land. The brick used in these constructions may well be recycled, as such, it is possible that these features may be late-medieval in date.

The 19th to 20th century cellars appear to have remained void until the modern demolition of the upstanding building. Cartographic resources suggest that Trench 1 was located on the site of the Anchor Brewery complex which replaced an earlier street frontage of smaller buildings established here since the 18th-century.

TRENCH 1	
(Modern surface c.4.35m OD)	
Modern Overburden	0.8m to 0.5m deep
Significant Deposits/horizons	c. Depth below surface
19 th -20 th -century foundations + cellar	0.3m
?Late-medieval ?surface + conduit	0.6m
Medieval make-up + pits	0.5m
Saxo-Norman Quarry Infills	1m
c. depth of observed Saxo-Norman quarry activity	3.03m
Highest observed chalk natural	1.06m
Lowest observed chalk natural	3.03m

Table 1: Trench 1, depths of significant deposits/horizons

Trench 2

(Figs. 12 & 23. Plates 4 & 6)

Trench 2 was located close to the western limit of the site and was located directly south of the former Meter Station Store. The trench was positioned c.32m to the south of the modern edge of the River Wensum. The modern surface sloped from north to south and modern overburden was present to a depth of 0.8m to 0.3m. A modern concrete surface up to 0.16m thick lay just below the asphalt. Investigations into deeper deposits remained limited in this trench due to the presence of 19th to 20th century obstructions and associated disturbance.

Medieval Deposits (11th to 14th century)

A single sherd of late-medieval pottery dating from the 15th to 16th century was recovered from a peat-ash rich deposit ([367]) which may have been the fill of a pit ([368]) severely truncated by a 19th century storm drain. Where earlier deposits remained undisturbed in the north-east corner of the trench they were investigated by hand excavation with deeper deposits tested by auger.

The hand excavated sondage revealed c.1m depth of medieval silty-clay make-up ([318], [319], [320] & [374]) with occasional lenses of peat-ash. Several sherds of medieval pottery were recovered from deposit [320] which suggests a 13th century date for the sequence. Below these layers hand auguring demonstrated c.1.4m of alluvial silt deposits ([337], [338] & [339]) above a very thin layer of detritus bearing sandy-silt ([340]). The material brought up by auger from [340] was retained as a sample; analysis revealed the presence of hazel nut shells (*corylus avellana L.*), charcoal and eggshells (sample <9>). Below this was a thin layer of redeposited

chalk ([341]). This appeared to seal a fine layer of pale grey sand above a soft reedy peat encountered at a depth of c. -2.25m OD (c. 4.70m below the modern surface).

Anchor Brewery Foundations (19th-20th century)

Directly below the modern overburden, remains of the 19th to 20th century industrial use of the site were discovered in the form of a level surface of concrete ([191]) associated with two inset parallel steel rail tracks (14" gauge) running approximately east-west through the trench ([182]). Until the concrete was broken out only the surface of the rails was exposed with slightly concave channels between each pair, possibly to form a barrel run. The concrete had hermetically sealed the tracks which were very well preserved; the plates and bolts used in their construction were still undamaged by rust. The tracks were lightly supported by brick fragments above a rubble rich layer ([192]). Below this was a thin layer of rammed chalk ([311] & [193]) sealing rubble and charcoal flecked deposits which appear to be preparation material associated with the factory build ([316] *et al.*)

Either side of the track system were a series of red brick pads supporting cast-iron plates with circular footprints to receive upright columns ([179], [180] & [181]). These pads were built off inverted brick arch foundations ([286]). The buried foundations were c.3m in depth (investigated by sondage and probe) and may represent elements of a Victorian engineering method known as *fireproof construction* which makes use of fireproof materials, such as brick and prefabricated metal components, to replace traditional timber materials.

A large storm drain of the same period (running south-north) and a ceramic collared pipe (running east-west) has added to the 19th-century disturbance of any earlier deposits in this trench.

Modern (20th century)

Directly below the asphalt surface was a sloping layer of modern concrete ([186]). This surface is an extension of a similar surface at the top of both Trench 1 and 3 dating to the expansion of the Eastern Electricity Board site onto the former set of the Anchor Brewery after its demolition in the 1980s. Below the concrete was a sloping deposit of demolition rubble sealing the brewery factory floor below ([187], [188] & [189]).

General Discussion

Below medieval layers which include dumps of peat-ash auguring recorded the presence of a chalk layer overlying a waterlogged peat formation. The chalk and the organic detritus above it were sealed by c.1.4m of riverine silts. The formation process of these deposits is difficult to determine by hand auger alone. Although the silts are most likely to have been laid through fluvial action they may also be the results of dumping from river dredged material as observed at other sites along the Wensum. The deepest augered deposits can be compared in their character and depth to the Saxo-Norman/early medieval riverine deposits discovered in Trench 3 to the west.

The rail tracks and the brick foundations are remnants of the Anchor Brewery which formerly occupied this area of the site. A similar arrangement of tracks at the Bullards Brewery can be seen in Plate 5. The limits of the factory shown on

1873 (Morant) appear to only just incorporate the location of Trench 2. By 1885 (OS 1st Edition) the factory had extend to include both the area of Trench 2 and Trench 3. Given that the concrete factory floor appears to extend across from Trench 2 into Trench 3 and that the foundations encountered in Trench 3 are of similar construction it seems likely that these elements date from this later period in the factories development.

TRENCH 2	
(Modern surface c.2.93m OD sloping to c. 2.43m OD)	
Modern Overburden	0.8m to 0.3m deep
Significant Deposits/horizons	c. Depth below surface
19-20 th century concrete surface + Rail lines	Min. 0.3m
Top of 19-20 th brick pads/foundations	0.4m
Medieval deposits	0.6m
Medieval riverine deposits	1.6m
Peat (lowest investigated deposit)	4.7m

Table 2: Trench 2, depths of significant deposits/horizons

Trench 3

(Figs 13, 14 & 24. Plates 7 & 8)

Trench 3 was located 15.3m to the east of Trench 2 on well sloping ground (sloping from south-east down to north-west). The trench was positioned c.32m to the south of the modern edge of the River Wensum. Modern overburden was present to a depth of c.1m to 0.35m. A sloping modern concrete surface up to 0.19m thick lay just below the asphalt which is an extension of that encountered in Trench 2

Saxo-Norman Timber 'Walkway' (11th to ?12th century)

The earliest deposits encountered consisted of wet riverine deposits below a well preserved set of semi-waterlogged timbers forming a 'jetty-like' structure of cleft planks, boards and posts aligned north-south (Fig. 14 & Plate 8). The spot-dates from pottery associated with the structure suggest a Saxo-Norman date (11th to possibly 12th-century). The highest timber was encountered at 0.27m OD and the majority of the 'cross-boards' rested at c.0.00m OD. Samples from a few of the timbers demonstrated that preservation was excellent and that the sampled boards and post were all of slow grown oak, consistent with a Late Saxon to early medieval date (Richard Darrah *pers. comm.*). A few pieces of loose brushwood were also present among the timbers.

The timbers were rested on organic rich peaty-silts ([531] & ([535]) that contained many off-cuts of well preserved leather, 39 examples of which were collected (SF 46).

Below these layers was a chalk laden silt c.0.10m in depth ([536]) sealing a sequence of water lain deposits which consisted of 0.5m of silty peat and reedy peat ([537] & [552]). This was separated from a further 0.45m of peat ([562]) by a thin layer of chalky marl ([561]). Below the peat and was a fine fluvial sand ([563]) overlaying heavily waterlogged chalky marl at a depth of c.2m OD. ([564]). Hand auguring ceased at this level due to the firmness of the chalk marl.

Riverine deposits sealing the timbers (c. 12th century)

The timbers were initially sealed by a chalk-flecked sandy-silt above which lay a series of horizontal deposits up to 1m in depth. These layers consisted firstly of dark blackish grey alluvial silts followed by silty-clays. These deposits were fairly sterile, other than a few sherds of early medieval pottery collected from a layer nearer to the top of the sequence ([528]).

Intercutting pit sequence (c. Late 12th-14th century)

A new phase of anthropogenic deposits was initiated by dumped clay-silt make-up layers rich in peat-ash waste interleaved with charcoal stained lenses and chalk and charcoal flecked clay-silts. These layers were truncated by a complex sequence of medieval pits up to 0.9m in depth, interspersed with peat-ash dumps with thin chalk layers used to consolidate the soft infills of some of the pits ([440], [423], [426], [438], [439], [414], [513], [444], [447], [450], [465], [480], [81], [519], [392] & [386]). A few sherds of 13th or 14th century pottery were recovered from the deposits in this sequence. The majority of these pits contained numerous laminated deposits which represented episodic accumulation. They consisted of organic rich ashy residues interleaved with fine sandy-silts and clay-silts. These soft layers were of varying colours and hues including bright red, orange, green, yellow, brown, blue and black. Many of the pits also contained bright red to orange dumps of peat-ash.

A macrofossil analysis of the ashy/organic rich residue (sample <11>) from one of the pits was fairly inconclusive as to the function of the pit however elements of charcoal and the presence of faeces was noted along with a fairly abundant presence of heather stem fragments. Heather was also noted from the ashy residue of a pit discovered in Trench 5, also part of complex series of intercutting pits of a similar period and character.

Modern (19th to 20th century)

Above the medieval features were thin layers of modern make-up beginning with a level layer of dark-brown clay containing fragments of red-brick ([32]=[33]=[404]=[433]). A trench containing a red-brick foundation with a flint rubble core c.1.5m in depth truncated all earlier deposits ([30]). This structure supported two brick pads identical in form to those discovered in Trench 2. A level chalk raft/surface ([25]) supported by rubble spreads ([26] & [27]) followed by a level concrete surface ([24]) formed a floor contemporary to the pads.

Modern demolition rubble lay above the concrete surface which formed part of the landscaped slope ([22] & [23]). This overburden was sealed below a sloping modern concrete surface directly below the modern asphalt.

General Discussion

The earliest deposits consisted of riverine silts and reedy peats which pre-date the construction of a timber 'walkway' in the Saxo-Norman period. These riverside layers suggest wet marsh at the edge of the channel with some inundations of chalky-silt and marl either from in-wash or as dumped consolidation layers. Trench 1 has demonstrated Saxo-Norman chalk quarrying at the rear of the site which may suggest a period of intensive industry. The chalk marl produced from such industry may account for some of the residual waste further down slope; the banks

of the river may also have been purposefully consolidated to some degree in this period.

The timber 'walkway' appears to jut out toward the river across wet land and may have provided access to either a staithe or simply the river itself. Boats in this period were clinker built and were not designed to be moored against hard platforms which could damage their hulls. Landing points consisting of hards (formed from brushwood or dumped material) were created at the foreshore for beaching river craft for the loading and unloading of goods. Consolidated 11th century foreshores with well preserved timber and wickerwork have been uncovered further along the Wensum in Norwich to the east, at St Martin-at-Palace Plain and either side of Whitefriar's Bridge, and to the west at Coslany Bridge.

The timbers appear to have been preserved under inundation deposits up to 1m deep prior to minor consolidation in the 13th to 14th century when the area was subject to repeated pitting. These intercutting pits may be associated with wet processing related to medieval industrial activity on the site. Trench 3 is believed to be located on the western side of Fullershole known to be occupied by Dyers and Fullers in the 13th to 14th centuries. Fullers used lye pits to process woollen cloth, the cloth being trodden or beaten in lye solution until the cleansed fibres interlocked to produce a much softer material known as worsted. A fine clay loam named Fuller's earth was also made use of in this process to scour the cloth and imbibe grease.

Lye was an indispensable caustic alkaline solution used by medieval bleachers, tanners, cloth finishers and many other trades. It would generally have been made locally from fine ash, animal excrement, human urine and lime diluted with water. Lye would have been used to bleach, soften and scour materials such as wool and leather where flesh and grease could also be removed. It also served to make liquid or solid soap by boiling it with pure fats rendered from animal products. The fine-ash required in lye production was usually derived from wood-ash, however peat-ash also provided a suitable alternative. This material could be gained as a by-product from other industries such as 'Founder's earth' – a furnace residue of fine ash. The pit sequence and ash deposits discovered at this horizon may relate directly to these Fulling processes.

Modern levelling activity occurred directly above the medieval deposits prior to the construction of the brick foundations and concrete floor; which are an eastern extension of the Anchor Brewery remains encountered in Trench 2.

TRENCH 3	
(Modern surface c.3.35m OD sloping to c.2.5m OD)	
Modern Overburden	1m to 0.35m deep
Significant Deposits/horizons	c. Depth below surface
19-20 th century concrete surface	Min. 0.35m
Top of 19-20 th brick pads/foundations	Min 0.40m
Medieval ?processing pits	Min 0.65m
Medieval make-up/build-up (overlying timber structure)	Min 1.62m
Early Medieval timber structure above water laid deposits	Min 2.25m
Lowest investigated deposit	4.25m

Table 3: Trench 3, depths of significant deposits/horizons

Trench 4

(Figs. 15, & 25 Plate 9)

Trench 4 was located close to the central area of the site, to the rear of the extant buildings on the river frontage (c. 25m south of the modern river edge).

Large Basements (19th-20th century)

Below 0.45m of modern make-up (a course sandy-hoggin supporting the asphalt surface) the predominantly concrete walls of a large factory basement were revealed ([150], [372] & [149]). At the top of the basement on its western edge were the demolished red-brick foundations of an upstanding wall ([148]) and a level concrete surface ([146]). The concrete surface was up to 0.10m thick and was laid over a soot rich rubble make-up ([147]). The basement was filled by demolition rubble ([143]) below layers of machine trample ([159]).

The basement infill was excavated by machine to a maximum depth of c.3.5m below the modern surface. The rubble infill at this depth was waterlogged and any basement floor was not reached before safety dictated that the trench be backfilled.

In the north-facing elevation of the basement wall a large opening with a threshold was observed to a depth of c. 2m below the top of the surviving basement wall. The walls in this area of the basement appeared to be applied with bitumen and were soot stained. A later addition of modern brickwork blocked this former opening ([346]).

General Discussion

This basement is very similar to the partially flooded basement observed in the original proposed location for Trench 7 (c. 15m to the north-east): Two metal covers were lifted by the aid of machine which revealed that an extant basement existed below a 1.5m cap of concrete supported by steel joists.

These defunct basements may date from the early 20th-century development of the site. They sit below the area once occupied by a large depot serving the Eastern Electricity Board complex (c.1940 to c.1970) which was constructed on the area of the original Light Works building (c.1900). The area of the basement discovered by Trench 4 exhibited partly bitumen lined walls and the possibility of what may be an industrial scale chute (prior to its blocking). This area may have formed part of a large coke/coal fuel store below the depot. It is unclear if any earlier archaeological deposits survive below these structures. If the disturbance ends between 3.5m to 4m below the modern surface, any *in situ* deposits below are likely to consist of medieval or earlier riverine deposits based on the results of the other trenches and the Window Sample evidence (see Window Sample Log 14, Adams 2007 - NAU Report 1249).

TRENCH 4	
(Modern surface c.4.2m OD)	
Modern Overburden	0.45m deep
Significant Deposits/horizons	c. Depth below surface
Top of basement walls	Min. 0.45m
Floor of infilled basement	>3.5m

Table 4: Trench 4, depths of significant deposits/horizons

Trench 5

(Figs. 16, 17, 18 & 26. Plates 10, 11 & 12)

Trench 5 was located 6.5m north of the southern edge of the site on the western side of the former Eastern Electricity Board Social Club building. Although shoring methods were employed to allow for deep excavation the shored area was limited to c.3x3m² due to the presence of a solid 19th-20th century foundation wall and a flint wall of a likely late medieval date.

Auger tested deposits above natural chalk (c. Late 12th-13th century)

The deepest deposits encountered were deep chalky clay-silts ([230] & [273]) up to 2m in depth. Residual finds included small quantities of butchered animal bone, oyster shell and numerous pottery sherds. The pottery from the upper deposit [230] included residual sherds of Saxo-Norman date along with medieval sherds which suggest a late 12th to mid 13th century date for the deposits formation. Just two Saxo-Norman sherds were collected from the lower deposit ([273]), but these may also be residual.

Hand augering through these deposits demonstrated that nearly 2m of chalky-silt material lay above a thin layer of dirty yellow clay-silt. Below this a waterlogged natural chalk was encountered at a minimum depth of 4.4m below the modern surface. Auger testing at the northern end of the trench revealed similar deposits with some evidence that the chalky-silts sloped slightly down to the north. However, at the level where chalk was expected the auger encountered a black deposit of 0.2m thick fine organic rich silt from which a small fragment of fired clay was retrieved ([277]). Below this a slightly stony waterlogged dark grey silt was encountered.

Intercutting pit sequence (c. Late 12th-13th century)

Above the homogenous chalky clay-silts was an inter-cutting sequence of numerous medieval pits which appear to have once served a similar industrial function [247], [245], [271], [270], [212], [257], [251] & [265]).

Fairly small quantities of residual pot sherds were collected from these features which include some Saxo-Norman dated sherds mixed with medieval sherds, suggesting a late 12th- to 13th-century date for the activity.

Many of these pits contained thin lenses of charcoal and ashy/organic residue along with thin clay layers in their base which may have served as a basal lining. Many also showed evidence of repeated use prior to infilling. Some of the pits showed signs of oxidation from *in-situ* heat sources and may have acted as hearths or required heat as part of an episodic process.

The last few pits in the sequence were modelled from a dump of silty-clay ([237]) which showed clear signs of heat modification where the bases and edges of the pits had become oxidised and the base partially vitrified (pits [212] & [257]). This process had been repeated several times following relining of the base and a thin ashy/organic residue was evident above each lining. A sample of this material from pit [212] was submitted for analysis (deposit [213] – sample <3>). The results were consistent with a small deposit of spent fuel; which included heather, bracken and the upper chaff elements of cereal stems (including barley, rye, bread wheat and rivet wheat used as kindling or an additional source of fuel). Heather and

bracken were favoured in the medieval period for domestic and light industrial purposes as they ignited readily and rapidly reached a high temperature, which was maintained throughout the period of combustion.

Associated with the base of one of the earliest pits in the sequence ([265]) was a rectangular formation of large stones, possibly intended as hearth stones although they showed no obvious signs of heat damage ([241]).

Make-up (?13th to 14th century)

Above this pit sequence was a series of thin deposits consisting of sandy-clays, clays, redeposited chalk and clay-silts ([172], [210]=[173], [209], [211], [227], [250] & [268]). These deposits sealed the main pit sequence and were observed to slope gently to the north. The small quantity of pot recovered from this sequence dates the layers to a similar period as the pits below. A medieval roof tile fragment and two pieces of medieval brick manufactured possibly between the 13th and 15th century were also collected from this sequence.

Medieval wall foundation and later pits (?13th to 15th century)

Shallow foundations in the form of an east-west aligned flint and mortar wall were discovered at the southern limit of the trench ([231]). The structure only survived to a height of 0.3m and represented a rough footing construction incorporating sub-rounded flints and occasional small brick-like fragments within a coarse sandy mortar (<4>). This wall foundation was constructed above the thin make-up layers which sealed the medieval pit sequence previously described. Two fragments of ceramic building material were recovered from the wall fabric which were identified as medieval roof-tile and a piece tentatively identified as Roman tile. Such materials were often quarried away from their original sources from the Saxon period for use in hearths and masonry structures.

A steep sided pit appeared to abut tightly to the edge of the wall ([169]). The initial pit infill consisted of organic stained clay silt ([178]) below a lens of sandy clay ([170]) and a dump of chalk and mortar flecked clay-silt ([171]). Fragments of building rubble were collected from the fills which included medieval brick and ridge tile, mortar lumps (from a possible tiled floor), wall stucco fragments and a small piece of burnt Roman tegula. A fragment of quern stone (SF 45), a goose bone pen (SF 1) and a few residual sherds of early medieval pottery were also recovered.

A larger feature ([269]) at the northern end of the trench contained well mixed deposits containing chalk waste and clay-silt. A sherd of late medieval transitional ware was recovered from this large pit which may suggest a 15th to 16th century date.

Later medieval occupation (15th to 16th century)

Sealing the wall [231] and all contemporary deposits was an extensive make-up deposit of firm, chalk-flecked sandy clay up to 0.30m in depth ([207]). This clay was fairly sterile and appears to have been used to cap all previous activity. Above this layer were further thinner spreads of make-up which consisted of clays rich in mortar waste and flint rubble ([216], [217], [218], [154=206]). Fragments of medieval brick and tile were collected from these deposits.

Above these clay rich make-up deposits was a firm chalk raft/surface ([05] & [153]) set down upon dirty silty-clay ([06=155=134] and [135]).

In the northern end of the trench a finely constructed flint wall was discovered running on an east-west alignment ([10]). The wall survived to a height of c.0.5m and was truncated by a 19th-20th century wall at its western end ([08]). Although also partially truncated by modern activity at its eastern end the full width of the wall was revealed to be 0.65m. It was constructed of fairly well sorted flint cobbles and sandy mortar (sample <1>) with a few inclusions of chalk lumps and large mortar fragments. A few fragments of recycled ceramic building material were incorporated into the fabric; four pieces retrieved all proved to be of early brick with date ranges of likely manufacture ranging between the 13th and 14th century and possibly into the 15th-century. A single piece of Caen limestone was also incorporated into the fabric, which was retrieved for assessment. The stone exhibited a flat-face with diagonal axe-tooling and may date originally to the 12th century. The wall was constructed upon a large quantity of finely crushed mortar ([96] & [97]) which formed a loosely compacted bed within a foundation trench 0.35m deeper than the base of the wall ([98]).

The chalk raft/surface mentioned previously appears to be contemporaneous with the wall. Two pits of fairly differing character truncated the chalk raft/surface:

The largest of these was an elongated waste pit with a concave profile ([13]). This pit contained various organic rich, ashy layers ([16] to [19]) capped with a dirty chalk layer ([15]). A relatively large assemblage of butchered animal bone was recovered from this pit which included a wide assortment of animals including bird and fish. Oyster, cockle and mussel shells were also present. The organic rich fill was analysed (sample <2>) and found to be rich in fish bones and mineralised faecal concretions. Pins (SF 5 & 8), lace-tags (SF 7) and knife blades (SF's 14 & 32) were also present. Several pottery sherds collected suggest a 15th century date for this feature.

The second pit was more amorphous in nature and significantly deeper ([14]). This pit may also have served as some form of waste pit although it contained far fewer inclusions.

The squared corner of a pit was seen in the south-west corner of the trench where it was severely truncated by later disturbance ([131]). A post-medieval roof tile fragment and two sherds of pottery of a likely 16th to 17th century date were collected from its single fill ([132]).

Modern Features (19th to 20th-century)

A well mixed silty-clay make-up below a thin layer of crushed brick sealed all earlier features ([04] & [03]). Modern structural features were buried beneath a compacted rubble rich clay-silt ([02]).

A 19th-20th century brick well infilled with loose rubble was encountered in the south-east corner of the trench (09). In the north-east corner of the trench was the corner of a similarly infilled red-brick structure ([11]). The western edge of the trench revealed deep wall foundations up to 0.75m thick ([08]) constructed of red-brick and concrete/rubble conglomerate. The foundations were aligned north-south with a smooth face on its western side.

Above these features was a layer of sandy-hoggin supporting the modern asphalt surface. A vertical cut in the west-facing baulk section may be evidence for the removal of a modern pipe trench ([07]).

General Discussion

The natural chalk was much deeper than perhaps expected in this area. This may in part be due to the chalk scarp of Charing Cross perhaps lying further to the south than as observed in Trench 1 at the western end of the site, although Window Sample 12 (Adams 2007) which was located less than 3.4m to the south-west demonstrated the natural chalk to be at c.2.7m below the modern surface. It is possible that the natural has been subject to modification, perhaps quarry activity similar to that discovered in Trench 1 may account for this sudden change in depth. If so it could be envisioned that Late-Saxon to early-medieval quarrying took place along much of the chalk scarp at the rear of the site. The dark silts hit by auger may represent infills of a silt filled pit, although it is possible that some form of alluvial activity took place close to the base of the scarp.

Trench 5 is located between the lost medieval lanes of Smalebureghshole and Bleckstershole in the vicinity of a late 13th to early 14th century messuage notable for the presence of dyers and a bakery identifiable from historical documents. Dyers and bleachers of worsted cloth operated in this area of the site from the 1200s. These processes involved wet processing both to bleach cloth using urine and lye solutions and to fix cloth with dye using hot water and urine or other dye fixing agents. Fullers also used lye pits to process woollen cloth. The medieval pit sequence may relate directly to some of these medieval industries. Many of the pits appear to contain deposits which may be associated with wet processing, along with hearths which may have been used for heating containers of water or agents involved in the dyeing or bleaching process. The residues of one of these hearths included several varieties of chaff from cereals used in bread production; this evidence is particularly notable given the knowledge that a medieval bakery site appears to have existed in the vicinity during this period.

Two walls of possible late medieval date were discovered which may indicate the presence of stone buildings. The earliest wall foundation post dated the medieval industrial pits and dates from a possible 13th to 14th period. A pit abutting the edge of this wall appeared to contain demolition material which may be sourced from the destruction of a building with a tiled floor and stucco walls. The area was subsequently cleared, capped and consolidated with a firm clay make-up. Layers rich in mortar and flint rubble may be either residual material from demolition or construction associated with a second stone structure of a potentially 14th to 15th century date. Contemporary 15th century waste pits contained evidence of a fairly high status diet.

The large 19th-20th century wall foundations may be part of a building extending north off Charing Cross seen on the 1st edition OS map of 1885 which remained upstanding into the early part of the 20th century. The building had been demolished by the 1960s. The brick well and the other brick feature may be associated with this building.

TRENCH 5	
(Modern surface c.5.4m OD)	
Modern Overburden	0.5m to 0.7m deep
Significant Deposits/horizons	c. Depth below surface
19 th to 20 th -century factory walls and brick well	Min. 0.5m
?Late-medieval flint wall	0.65m
?Late-medieval make-up layers (cut by later pits)	Min. 0.75m
?Medieval wall footings	1.5m
Medieval ?processing pits	1.65m
Medieval clay-silt make-up	2m
Natural chalk	Min.4.4m

Table 5: Trench 5, depths of significant deposits/horizons

Trench 6

(Figs. 19, 20, 21 27 & 28. Plates 13 to 20)

Trench 6 was located 12m north of Trench 5 and 9.6m south of Trench 4. Two impressively deep flint walls were discovered just below the overburden, running almost parallel with the northern ('wall 139') and eastern ('wall 140') edges of the trench. A modern brick wall had made use of the east-west wall 139 as a solid footing.

Stone building (15th to 16th century)

The walls were exposed down to a safe depth and recorded prior to the installation of sheet shoring. A sondage was also excavated in the north-east corner of the trench prior to shoring. Along with two gaps of c.2m width in the sheets the elevations of both walls were partially recorded to their very base.

These flint walls demonstrated several changes in their face-work with a change from fairly rough to fair facing c.0.3m from the top of the walls remains. Other construction lifts were observed in both walls, the most striking of which is shared by both walls at c. 0.85m from the top of the remains. Some cracking was noted in the elevations of both walls, possibly formed as they settled into soft ground below.

Both walls were constructed predominantly of large flint cobbles, of which some have struck faces. Brick elements were more common near the top of the construction, and apart from one string near the base of wall 139 are all used in an ad-hoc fashion within the flint courses. Many of the fragments appear to be reused in this construction and the samples of brick collected date originally from the 13th to 14th-century. The walls exhibited c.2.2m of coursing before coming to a sudden base. The width of wall 140 at its top was determined by a small investigation hole placed against its eastern side which revealed it be c.0.4m wide, although modern disturbance may have damaged the eastern face.

Flint & mortar foundations (?13th – 14th century)

Below their bases the walls rest above wider foundations of large flints and mortar ([566] & [572]). These constructions may represent stepped footings however, their alignment with the walls above was far from true and this was particularly pronounced below wall 140 ([572]). A comparison of the mortar types used in the

base of wall 140 and the foundation structure 572 appears to show that the fabrics were of notably different character (sample <23> vs. sample <24>).

Neither flint wall was directly bonded to these constructions. The base of wall 139 rested upon a 0.2m thick layer of loose mortar rather than the firm flint and mortar below, and the base of wall 140 rested upon a band of firm clay up to 0.2m thick which sealed the flint and mortar construction below ([570]). This layer spread out as a thick make-up layer in the rest of the trench up to 0.4m in depth. It capped all earlier deposits including layers associated with the rough foundations. These layers consisted of a thin chalk raft/surface ([573]) above a spread of chalky silty-clay ([576]). Below this was a very thin dirty trample layer ([577]) butting up to the edge of the foundation 572. A further chalk layer/raft up to 0.2m deep appeared to act as a firm footing deposit below the foundations. These deposits were probably level at the time of their formation but the weight of the walls and soils above has compressed them into softer deposits below.

Finds of pottery and brick/tile from the clay make-up sealing the foundations suggest an earliest formation date of early 14th century for the activity. Below the flint and mortar foundation were layers of grey to brown clay silts up to 0.9m in depth ([578], [579] & [581]). These layers were relatively sterile of finds although a few sherds of medieval pottery were collected which indicate a likely 13th century date for their formation.

Riverine silts (12th to 13th century)

Below the layers of make-up auguring was used to a depth of 2m to investigate a sequence of silty deposits below. These wet deposits consisted of dark organic stained riverine silts. A single small sherd of pottery spot dated to the 12th or 13th century was recovered from a blue-black silt ([587]) c.1m below the make-up layers. Below this deposit waterlogged grey alluvial silt proved to have to a depth greater than 0.5m ([588]).

Discrete pit (?14th to 15th century)

Truncating the clay levelling layer (570) was a sub-circular pit c.2m in length and c.0.3m deep ([565]). The pit was identified most clearly in the sections of the deepest investigation slot and proved to have a fairly flat base and well sloping sides. It contained a layer of peat-ash residue in its base ([567]) below thin layer of charcoal residue interleaved with clay silts. This feature bore some similarity to those identified in the sequence of medieval pits in Trench 5. Sealing the pit were thin layers primarily of heavily charcoal flecked peat-ash ([495]) with some patches of chalk ([517]) and dirty clay-silt ([514]).

Initial Construction layers (15th to 16th century)

Above the layers sealing the pit and the clay make-up were the initial deposits associated with the construction of the stone walls 139 & 140. Wedging out from the base of the walls was a layer of sandy mortar containing flint debris ([515] & [516]), this was sealed below a levelling deposit of chalky silty-clay ([490]). Three very well defined stake-holes truncated this layer to a maximum depth of 0.18m ([507], [509] & [511]). They were confined to the central area of the trench. Sealing the stake-holes was an extensive layer of peat-ash of just 0.05m thickness ([487]); this levelled deposit supported a thin but firm surface of silty-clay ([496] & [347]).

Buried Drains (15th to 16th century)

Two features associated with water management were constructed at this horizon truncating earlier deposits in the process: a 'French-drain' style soak-away ([492]) and the robbed out remnants of a probable brick drain ([494]). These features ran parallel with each other on a north-south alignment. The French-drain was loosely infilled almost exclusively with large flint cobbles and began just to the south of wall 130.

The robbed out linear feature was fairly flat based and contained well tamped chalk ([488]) above which lay the possible remnants of a brick conduit ([493]). The collected bricks were all early forms with the majority dated to a late 14th to possible 15th century period of manufacture. This feature appeared to line up very well with a drainage hole constructed in the fabric of wall 139. This hole was void right into the wall and possibly through to the other side as internal measurements exceeded 1.5m.

Both of these drains were purposefully buried in a continuing sequence of horizontal make-up deposits against the flint walls. At this horizon loose residual mortar and flint waste was recorded forming a wedge like lens along the base of wall 140 ([497 & 498]); this material may have been produced as waste from further construction or modifications (such as pointing) to the wall itself.

Further Construction layers/surfaces (15th to 16th century)

Above the drains was a sequence of horizontal make-up and possibly very temporary surfaces. These began with a thin layer of clay-silt below a trample deposit of similar material ([487] & [491]). A thin mortar surface metalled with flints was fairly extensive across the trench and appeared to form a good surface, although this layer petered out before reaching either of the walls ([345]). Above the surface was a very thin patch of charcoal sealed by extensive layers of mortar debris ([344]) and large quantities of loose flint rubble ([406]). Mortar lumps from possible demolition activity were present along with large flint cobbles of which many had struck faces. This horizon may be evidence for further construction or modification activity associated with the walls. A layer of soft peat-ash ([328]) was then used to seal the deposits below and provide a level bed for a well compacted surface of chalk mixed with flecks of charcoal and fired clay ([324]). This surface appeared to be particularly well indurated by use. Fragments of ceramic building material were recovered from these layers which included brick of likely 14th to 15th century manufacture and a few residual sherds of pottery were collected of a 15th to possibly 16th century date.

Along the edge of wall 140 the upper make-up deposits appeared more disturbed and two contemporary features were excavated which appear to represent the stepped bases of shallow pits or post-holes ([325]) & [326]). The disturbance may be the result of further work against the walls and the possibility of some form of scaffolding is suggested. These features were backfilled with a well mixed deposit rich in peat-ash with no evidence for posts remaining *in-situ*. Sealing these infilled features and spreading across the trench to abut the walls was a sequence of very thin and fairly level make-up layers. This sequence began with a spread of ashy silty-clay ([125]) followed by a further layer of mortar debris with occasional flint cobbles, some of the mortar lumps showed impressions of cobbles and many of the flints were mortar covered ([123]). This deposit appears to be made up

primarily of demolition waste which may suggest either modifications to the upstanding walls or the use of imported waste to serve as make-up. It is of some note that the level of this horizon was at the same height as a clear lift scar in both walls which also marks a change in mortar type. A thin layer of peat-ash ([124]) below a thin layer of gritty clay ([375]) lay above this final layer of debris. Fragments of late-medieval to post-medieval brick and tile and a small quantity of pottery dated to the 15th or 16th century was collected from these layers.

Make-up (15th -16th century)

Sealing all earlier deposits was a make-up of fairly homogenous firm clay-silt up to 0.8m in depth ([99]). Numerous residual finds were collected from this well-mixed deposit including butchered animal bone, a large quantity of medieval and post-medieval brick and tile and pottery, which included sherds of a 15th to 16th century date. Several small finds were also collected which included a 15th century decorated belt mount (SF 3) and a sealed copper-alloy cup weight box (SF 11. Fig. 33). Two oval post-hole bases truncated the top of this deposit ([115] & [117]). They were both fairly shallow and contained a mix of loam and demolition waste of a 15th to 16th century date.

Above the make-up was a fairly sterile compact silty-loam ([164]) up to 0.4m deep, which may have accumulated more naturally than the deposits below. This material was relatively sterile other than a few thin lenses of mortar and sandy-silt ([165]).

A deep pit ([100]) was identified in the south of the trench and contained demolition waste and a large dump of post-medieval floor tiles. A single corroded silver coin of a possible 16th century date was recovered from the base of the pit (SF 95). The pit was sealed by a thin layer of crushed mortar and modern red-brick fragments ([163]).

Modern features (19th -20th century)

The remainder of the deposits and features were of modern date and included a small demolition pit ([166]) and the highly truncated remains of a thin red-brick wall and associated mortar floor identified in the north-east corner of the trench ([223] & [226]). A 20th century brick shaft, possibly a sump, was encountered in the western edge of the trench ([114]). This deep shaft was infilled by loose demolition rubble. A modern brick-wall of the same brick type as that of the shaft was constructed on a bed of concrete above the flint wall 139.

Sealing all previous features was a layer of sandy-hoggin up to 0.35m deep supporting the asphalt surface.

General Discussion

Riverine deposits of a medieval date were the deepest deposits encountered and appear to indicate that until the 12th century marshy conditions associated with the edge of the river prevailed in this area of the site. Around the 13th century make-up deposits were laid down which consolidated the ground ahead of the construction of a building that required flint and mortar foundations. Chalk was used to create a firm raft for this construction, which may be the remnants of a 13th to 14th century building, perhaps constructed at a similar period to the foundation evidence

discovered in Trench 5 to the south. Similarly both foundations may have suffered severe robbing prior to being capped by a stiff clay make-up.

The extant flint walls of a second building were then constructed over the older structure, which provided firm footings along with the clay. No evidence for a footing trench containing these walls was evident; instead they appear to have been constructed in a series of lifts with some evidence that to begin with the ground was raised against them. A French-drain and a possible brick conduit (to receive water from a drainage hole incorporated into the wall) were constructed and subsequently buried in the early phase of the walls construction. The conduit appears to have been relatively short lived and was robbed away prior to the introduction of later surfaces.

Aside from thin trample layers, two good surfaces were evident, the first of mortar metalled with flint sealed below a significant quantity of flint and mortar debris and the next a well indurated chalky surface laid down above soft peat-ash. These surfaces may represent temporary surfaces used during the construction/modification of the walls, the second was present at a time when scaffolding may have been set along the walls and further accumulations of building debris against the walls appears to tie in well with a clear lift scar. A large volume of imported material was then dumped against the walls to further raise the ground surface, the top of this layer may also tie in with a change in the wall from a rough to fair face perhaps indicating the level of occupation.

The walls are impressive in both their depth and preservation and may be part of a stone building of a 15th or possibly 16th century date that made use of salvaged materials of an earlier medieval date in its construction. It is possible that many of these earlier flints and bricks may even have originated from the demolition of an earlier stone building located on the same site. Enrolled deeds indicate that this area of the site was occupied from the late 13th to 14th century by medieval messuages which may well have included stone buildings or even timber buildings constructed upon stone foundations. Stone houses often made up only one element, and not necessarily a leading element, in a whole complex of buildings (Rutledge 1999). The presence of a late medieval to early post-medieval secular building perhaps constructed on the site of an earlier build is of particular significance; very few secular stone buildings survive from this period. From the 14th century stone buildings were often replaced by timber framed constructions as stone became inconvenient and expensive to maintain (Rutledge 1999).

TRENCH 6	
(Modern surface c.4.7m OD sloping to c.4.5m OD)	
Modern Overburden	0.5m deep
Significant Deposits/horizons	c. Depth below surface
19 th to 20 th -century walls/surfaces	Min. 0.25m
?Late-medieval/post-medieval flint walls	0.35m
Post-medieval deposits and pits	0.50m
15 th to 16 th -century deposits	0.75m
Robbed out brick drain and buried 'French-drain'	2.05m
Base of coursing for wall 140 (the north-south wall)	2.67m (@1.93m OD)
Base of coursing for wall 139 (the east-west wall)	2.82m (@1.78m OD)
Base of rough footings below wall 140	3.02m (@1.58m OD)
Base of rough footings below wall 139	3.22m(@1.38m OD)
Lowest medieval silt deposit investigated by auger	5.7m (@-1.10m OD)

Table 6: Trench 6, depths of significant deposits/horizons

6.0 The Finds

Finds Assemblage (T1 to T6)			
Type	Quantity	Weight (kg)	No. of Contexts
Animal Bone	976	17.447	61
Ceramic Building Materials	193	48.148	48
Clay Tobacco Pipe	4	0.008	1
Fired Clay	49	1.624	13
Flint - burnt	43	1.547	11
Flint - worked	10	-	13
Iron Nails	5	-	3
Metal Working Debris	79	1.905	15
Mortar	11	3.481	7
Pottery	683	9.027	82
Shell	-	0.973	26
Stone	7	12.616	10
Small Finds	46	-	22

Table 7: Finds assemblage from Trenches 1 to 6

Introduction

The finds and environmental material from the site is presented in tabular form with basic quantitative information in Appendix 2: Bulk Finds Catalogue.

In addition to this summary, more detailed information on specific finds and environmental categories is included in separate reports below. Supporting tables for these contributions are included in the Appendices.

6.1 Pottery (Appendix 3)

By Sue Anderson

Introduction

A total of 683 sherds of pottery weighing 9.027kg were collected from 82 contexts in Trenches 1 to 6 of the evaluation. Quantification was carried out using sherd count, weight and estimated vessel equivalent (eve). The minimum number of vessels (MNV) within each context was also recorded, but cross-fitting was not attempted unless particularly distinctive vessels were observed in more than one context. All fabric codes were assigned from the Suffolk post-Roman fabric series, which includes Norfolk, Essex, Cambridgeshire and Midlands fabrics, as well as imported wares. Thetford-type ware fabrics are based on Dallas (1984), and forms on Anderson (2004). Form terminology for medieval pottery is based on MPRG (1998). Recording uses a system of letters for fabric codes together with number codes for ease of sorting in database format. The results were input directly onto an Access 2003 database. Table 8 shows the quantification by fabric; a summary catalogue by context is included as Appendix 3.

Description	Fabric	Code	No	% No	Wt/kg	% Wt	eve
Thetford-type ware	THET	2.50	298		2.662		2.32
Thetford-type ware (Grimston)	THETG	2.57	39		0.948		0.43
Stamford Ware Fabric A	STAMA	2.61	2		0.008		
St. Neot's Ware	STNE	2.70	10		0.080		0.34

Saxo-Norman wares (?import)	SXNO	2.80	1		0.010		
'Early medieval' sandwich wares	EMSW	3.16	8		0.056		0.10
Total Late Saxon			358	52.4	3.764	41.7	3.19
Early medieval ware	EMW	3.10	31		0.340		0.20
Yarmouth-type ware	YAR	3.17	12		0.142		0.14
Early medieval ware sparse shelly	EMWSS	3.19	1		0.010		
Pingsdorf Ware	PING	7.24	4		0.102		0.20
Total early medieval			48	7.0	0.594	6.6	0.54
Grimston coarseware	GRCW	3.22	5		0.056		0.16
Local medieval unglazed	LMU	3.23	113		1.234		1.79
Stamford Ware Fabric B	STAMB	3.71	1		0.001		
Unprovenanced glazed	UPG	4.00	2		0.012		
Grimston-type ware	GRIM	4.10	52		0.782		
'Aardenburg' Ware	AARD	7.25	1		0.004		
Andenne Ware	ANDN	7.62	4		0.018		
Total medieval			178	26.1	2.107	23.3	1.95
Late medieval and transitional	LMT	5.10	52		1.516		0.87
Late Grimston-type ware	GRIL	5.30	10		0.108		
Tudor Green	SWWT	5.40	1		0.002		
Late Essex-type wares	LMTE	5.60	1		0.026		
Siegburg stoneware	GSW1	7.11	1		0.006		
Langerwehe stoneware	GSW2	7.12	1		0.044		
Raeran/Aachen stoneware	GSW3	7.13	14		0.620		0.69
Dutch-type redwares	DUTR	7.21	13		0.214		0.60
Local early post-medieval wares	LEPM	6.13	2		0.010		0.10
Total late medieval / early post-medieval			95	13.9	2.546	28.2	2.26
Unidentified	UNID	0.001	4	0.6	0.016	0.2	
Total			683		9.027		7.94

Table 8. Pottery quantification by fabric

Pottery by period

Late Saxon

Over half the pottery by count was Late Saxon. Thetford-type wares dominated and included both urban and rural fabrics. Thirty vessels were represented by rim sherds, and these included both early and late forms, as shown in Table 9.

		early		intermediate			late			undated
Fabric	Form	3	5	3/7	5/6	4	6	7	1	
THET	?		1							
	AA	1					1		1	
	AB	2	2	3	1	1	4		2	
	AC		2	2			2		1	
	lamp									1
THETG	AA						1			
	AE							1		
	AF							1		

Table 9. Thetford-type ware forms (MNV).

With the exception of one lamp, all identified vessels were jars, the majority being the ubiquitous 'medium' AB type. A handled jar (AE) and a large non-handled jar

(AF) were present in Grimston Thetford-type ware. In addition to the rims, body sherds with applied strips indicated the presence of at least three large storage vessels, and there were two further handles from either spouted pitchers or handled jars. No bowls were identified. Decoration other than applied thumbed strips included a rouletted sherd and a sherd with possible incised decoration.

'Early medieval' sandwich ware is thought to be a late development of Thetford-type ware; in this group the eight sherds included a simple everted jar rim.

Non-local Late Saxon wares included two Stamford body sherds, one of which was glazed, nine St. Neot's Ware sherds including one medium and one large jar, and a fine red micaceous body sherd which was possibly a contemporary import.

Early medieval

Early medieval wares formed a relatively small proportion of the group at only 7%. Most were medium sandy types, although shelly Yarmouth-type ware was also common within the period group. Identifiable vessels included a handled jar from [28], with a beaded rim in a fine micaceous fabric which appeared handmade and may be an import of 12th/13th-century date (Fig. 29), two YAR jars, and a Pingsdorf handled jar or pitcher.

Medieval

Around a quarter of the assemblage comprised medieval pottery. Local unglazed wares predominated, but there were also a few sherds of unglazed Grimston-type. The identifiable coarseware vessels consisted of 23 LMU jars, two LMU bowls and one GRCW jar. Jar rim forms in LMU consisted of nine early forms (simple everted, lid-seated everted and upright types) and fourteen developed forms (thickened everted, flat-topped everted). Decoration was rare: two sherds had incised horizontal lines, one had an applied thumbed strip, there was one example of a thumbed rim, and one sherd had a horizontal cordon at the neck. The GRCW jar had combed wavy lines on the rim and body (Fig. 30).

Glazed wares formed 33.7% of the medieval assemblage by count, a high proportion which is comparable with higher status sites elsewhere in the city. The majority was Grimston-type ware, but there were also a few non-local English wares and imports. No Grimston-type rims were recovered, but there were three handles and two 'arms', the latter from face jugs. Several sherds had the typical brown slip lines of the ware, in one case curving rather than straight. Two sherds had stab marks (Fig. 31), one of these in the form of three lines on a handle, and there was a body sherd with a thick, rouletted, applied strip.

Other medieval glazed wares included a Stamford Ware body sherd with copper green glaze, a relatively coarse fabric with oxidised surface and uncoloured glaze, and a medium sandy redware with curving incised lines and uncoloured glaze. Imports were all from the Low Countries and consisted of four sherds of yellow/orange-glazed Andenne Ware including a jug rim, and a sherd of Aardenburg Ware with white slip under a light green glaze.

Late medieval and early post-medieval

Sherds ranging in date from the late 14th to 16th centuries formed c.14% of the assemblage by count but 28% by weight due to the relatively large average sherd

size. Most of the group consisted of LMT, much of which was recovered from make-up layer [99]. Identifiable vessels included two jars, a handled jar, two jugs, a lid and a dripping pan.

Late Grimston ware and Essex-type LMT consisted of body sherds only. A sherd of 'Tudor Green' and two of local early post-medieval ware were from mugs. Dutch-type redwares included a small cauldron and a bowl with a collared rim, and the German stonewares were all sherds of mugs and jugs.

Other than glaze, there was very little attempt at decoration in this group. A few LMT vessels had combed horizontal lines, but this was intended more to provide keying for handles during manufacture than as decoration *per se*. One Raeren stoneware sherd was rouletted.

Unidentified

Four sherds were unidentified. Two from [18] were probably a relatively coarse non-local late medieval ware. One from [228] was a fine orange fabric with a grey core, thin-walled, and containing moderate coarse quartz and ferrous inclusions; this was of uncertain date. A small sherd from [535] appeared similar to Thetford-type ware but contained common fragments of unburnt flint; it was probably a rural Late Saxon product although it could be a medieval coarseware.

Pottery by context

Table 3 provides an overall quantification of the pottery recovered from each Trench. A summary of the pottery by feature is provided in Table 10.

Period	Tr. 1	Tr. 2	Tr. 3	Tr. 5	Tr. 6	U/S
LSax	302	2	19	20	6	1
EMed	24	-	15	17	-	-
Med	43	9	52	53	20	1
LMed	-	1	1	17	73	1
PMed	-	-	-	-	2	-
Unid	-	-	1	3	-	-
Total	369	12	88	110	101	3

Table 10. Pottery distribution by period and trench (sherd count).

Over half the assemblage was recovered from Trench 1, which produced nothing later than medieval. Late Saxon activity appears to have been focussed in this part of the site. The proportion of medieval pottery was highest in Trenches 3 and 5, where it may be related to dumping; earlier pottery in these trenches appeared to be largely redeposited as it was generally associated with medieval wares. Trenches 5 and 6, closer to the site of the Duke's Palace, produced the most late-medieval and early post-medieval pottery.

SSD	Feature	Context	Description	Fabrics	Pot date range
T1	42	46	Pit	LMU	11th-14th c.
T1	52	52	Layer (peat ashy)	LMU	11th-14th c.
T1	53	53	Layer (chalky silty-clay)	LMU	11th-14th c.
T1	54	54	Layer (peat ashy)	EMW	11th-12th c.
T1	62	64	Pit	THET, THETG	11th c.
T1	62	65	Pit	THET, THETG, STNE	11th c.
T1	67	67	Layer (ashy)	GRIM	L.12th-14th c.
T1	68	68	Layer (peat ashy)	LMU	13th c.?

SSD	Feature	Context	Description	Fabrics	Pot date range
T1	69	69	Make-up (shallow tips)	THET, LMU	11th-14th c.
T1	70	70	Make-up (v.chalky)	LMU	11th-14th c.
T1	73	73	Make-up	THET, THETG, STNE, EMSW, EMWSS, LMU	11th-12th c.
T1	74	74	Make-up (v.chalky)	THET, EMSW, EMW	11th c.
T1	75	75	Make-up	THET, THETG, STNE, STAMA, SXNO, EMSW, EMW, YAR, LMU	11th-12th c.
T1	76	77	Pit	THET, EMW, YAR, LMU, GRIM	13th c.?
T1	91	89		LMU	11th-14th c.
T1	92	92	Layer (chalky tip)	THET, EMW	11th c.
T1	109	110	Pit/post-hole	THET, EMW, YAR, LMU, UPG	12th-14th c.
T1	111	112	Pit	THET, YAR, PING	11th-12th c.
T1	280	280	Tip (chalky silt)	THET	10th-11th c.
T1	281	282	Post-slot	THET, THETG	11th c.
T1	283	284	Post-hole	THET	10th-11th c.
T1	288	288	Make-up	THET	10th-11th c.
T2	320	320	Layer (chalky sandy-silt)	THET, GRCW, LMU, GRIM	13th c.?
T2	354	369	Lens (within 353)	STAMA, LMU	L.11th c.
T2	368	367	?Pit base	DUTR	15th-16th c.
T3	0	199	U/S finds	LMU, GRIM	13th-14th c.
T3	28	28	Layer	EMW	12th-13th c.?
T3	29	29	Layer (silty-clay)	GRIM	L.12th-14th c.
T3	35	35	Layer	EMW	11th-12th c.
T3	390	390	Layer (clay-silt)	LMU, GRIM	13th-14th c.
T3	392	396	Pit	LMU, GRIM	13th-14th c.
T3	398	398	Layer (clay-silt)	THET, LMU, GRIM	13th-14th c.
T3	399	399	Layer (peat-ashy)	LMU, GRIM	13th-14th c.
T3	423	431	Pit	LMU	11th-14th c.
T3	438	421	Pit	LMU	11th-14th c.
T3	500	500	Layer (sandy-silt)	GRIM	L.12th-14th c.
T3	513	407	?Pit	LMT	15th-L.16th c.
T3	520	520	Layer (silt)	THET, EMW	11th c.
T3	528	528	Layer (clay-silt)	THET, LMU, UPG	12th-14th c.
T3	530	530	Layer (sandy-silt)	THET, EMW, GRCW, YAR, PING	11th-12th c.
T3	535	535	Layer (peaty-silt)	THET, UNID	10th-11th c.+
T5	0	200	U/S finds	EMSW, GRCW, LMU, GRIM	13th c.
T5	5	5	Make-up	ANDN	12th-13th c.
T5	13	16	Pit (lozenge shaped)	GRIL, LMT, GSW3	15th c.
T5	13	18	Pit (lozenge shaped)	GRIL, LMT, UNID	15th c.
T5	131	132	? feature observed in baulk section	DUTR	16th-17th c.?
T5	154	154	Layer	GRIM	L.12th-14th c.
T5	169	171	Pit	EMW	11th-12th c.
T5	169	178	Pit	EMW	11th-12th c.
T5	172	172	Make-up	THET	10th-11th c.
T5	197	197	Make-up	YAR, LMU, GRIM	13th-14th c.
T5	212	213	Pit/hearth	THET, LMU	11th-14th c.
T5	227	227	Make-up (sandy-clay)	GRIM	13th-14th c.
T5	229	229	Layer (organic rich)	LMU	11th-12th c.
T5	230	230	Layer (clay-silt)	THET, STAMB, EMW, YAR, LMU, AARD, GRIM	L.12th-M.13th c.
T5	234	234	Layer (silty-clay)	THET, LMU	11th-14th c.
T5	237	237	Layer (sandy-clay dump)	THET, LMU	13th c.
T5	245	246	Pit	THET	10th-11th c.
T5	247	248	Pit	THET, LMU	11th-14th c.
T5	265	240	Shallow cut - ? Pit/hearth	EMW	11th-12th c.
T5	269	266	? Pit	ANDN, LMT	15th-16th c.
T5	271	228	Pit	UNID	
T5	273	273	Layer (chalky clay-silt)	THET, THETG	11th c.
T5	274	274	Fill of [274]	LMU	11th-14th c.
T5	278	278	Layer (clay-silt)	THET, LMU	11th-14th c.
T6	99	99	Make-up	THET, THETG, GRIL, DUTR, LMT, LMTE, SWWT, LEPM, GSW2, GSW3	15th-16th c.
T6	100	95	Pit	GRCW	11th-M.13th c.
T6	123	123	Layer (mortar waste)	LMT, GSW3	15th-16th c.
T6	324	379	Chalk surface	GRIM, GRIL, LMT, DUTR, GSW3	15th-16th c.

SSD	Feature	Context	Description	Fabrics	Pot date range
T6	344	344	Layer (mortar waste)	LMT	15th-16th c.
T6	347	347	Layer/temporary surface (stony silty-clay)	THET, LMU, GRIM	13th-14th c.
T6	489	489	Make-up (peat-ashy)	GRIM	13th-14th c.
T6	490	490	Layer (clay-silt)	THET, LMU, GRIM	13th-14th c.
T6	494	488	Const. trench for 493	LMT	15th-L.16th c.
T6	497	497	Layer/dump	GRIM	L.12th-14th c.
T6	565	574	Pit	GRIM	L.12th-14th c.
T6	570	570	Layer (silty-clay)	THET, LMU, GSW1	14th-15th c.
T6	579	579	Layer (clay-silt)	LMU, GRIM	13th-14th c.
T6	580	580	Layer (chalk)	GRIM	13th-14th c.
T6	587	587	Augured deposit: silt	ANDN	12th-13th c.

Table 11. Pottery types present by trench and feature.

Discussion

The largest group of pottery in this assemblage comprised Late Saxon wares, the majority of which were recovered close to the road frontage, away from the marshy areas further down the slope and potentially an area of Late Saxon activity or industry. Whilst there is continuation in the assemblage through the early medieval period into the high medieval phase, the pottery quantity drops significantly and there are more vessels of 13th/14th-century date than those belonging to the late 11th/12th century. Potentially there was a decline in use of the area in the earlier period. Late medieval wares also form a relatively small proportion of the group in terms of actual vessels represented. Their location on the site, close to the presence of a stone building, may suggest a link with this structure, deposited as residual waste in make-up deposits and occasional pits.

There is nothing particularly unusual in the assemblage, all pottery types being typical of the city. The high proportion of glazed wares in the medieval period could be related to a high status building in the vicinity, as also suggested by the CBM assemblage of the same date. However, the smaller quantity of earlier medieval pottery may have skewed the data slightly and the glazed ware proportion may not be directly comparable with other city sites as a result.

6.2 Ceramic Building Material (Appendix 4)

By Sue Anderson

Introduction

A total of 193 fragments of CBM weighing 48.148g was collected from 48 contexts. A full catalogue is included as Appendix 4.

Methodology

The assemblage was quantified (count and weight) by fabric and form. Fabrics were identified on the basis of macroscopic appearance and main inclusions. The width, length and thickness of bricks and floor tiles were measured, but roof tile thicknesses were only measured when another dimension was available. Forms were identified from work in Norwich (Drury 1993), based on measurements. Other form terminology follows Brunskill's glossary (1990).

The CBM assemblage

Table 12 shows the quantification by fabric and form.

Description	Fabric	RT	RID	VAL	EB	LB	FT	FFT	SW	FLT	UN
estuarine clays	est				94						
coarse sandy	cs	2									
medium sandy	ms	26									1
fine sandy	fs	1									
ms with calcareous inclusions	msc		1							1	
ms with flint inclusions	msf	13	1			1					
ms with ferrous frags	msfe	6				2					
fs with ferrous frags	fsfe	1	2			1					
ms with grog	msg	6				1					
fs with grog	fsg	3	1				15	2			
ms with grog & ferrous	msgfe	2					2				
fs with grog & ferrous	fsgfe	1									
fs with grog and mica	fsgm			1			1				2
white-firing fs	wfs	1									
refined white earthenware	refw								1		
compressed grog?	comp					1					
Totals		62	5	1	94	6	18	2	1	1	3

Table 12. CBM by fabric and form (fragment count).

Roofing

Sixty-two fragments of plain roof tiles (RT) were collected in a wide variety of fabrics. Medium sandy red-firing tiles were the most common and, unusually for the city, there were no estuarine clay examples. By period: 27 fragments were probably post-medieval, 30 were probably medieval and the remaining five were uncertain. Nine tiles, all medieval, showed traces of brown or green lead glaze, one of them bright green and probably containing copper. Whilst it is likely that most tiles of this type had peg holes, as nibbed tiles are generally rare in the city, only six fragments with holes were collected; these were all round types. None of the fragments was complete enough to be sure whether the tiles had one or two holes. A few tile fragments had evidence for re-use in the form of mortar on the broken edges or thick mortar adhering to one surface, but compared to other assemblages this was rare.

Other roofing tiles included five pieces of ridge tile (RID), all medieval, and one valley tile (VAL), probably post-medieval. Three of the ridge tiles were glazed and two had knife-trimmed edges. No examples of pantiles were present in this group, despite there being several roofs of this type in the surrounding area.

Walls

Of the 100 brick fragments recovered, ninety-four were medieval estuarine types (EB) of 13th- to 15th-century date. No complete examples were found, but twenty-three width and forty thickness measurements could be recorded. Widths ranged from 99mm to 130mm with thicknesses from 30mm to 63mm. Of the 40 fragments which could be measured, twenty-five could be assigned to a single Drury form

type, nine were less certain, and three did not fit into his groupings; three were unassigned due to the base type being uncertain. Table 13 shows the spread of types in this assemblage.

Sanded form	No.	Strawed form	No.	Other (strawed)	No.
EB1	1	EB6	1	99 x 61	1
EB2	5	EB6/7	2	103 x 30	1
EB2/3	1	EB6/8	2	120 x 35	1
EB3	2	EB6/8/9	1		
EB4	5	EB6/9	1		
		EB7	3		
		EB7/10	2		
		EB8	6		
		EB9	2		
Totals	14		20		3

Table 13. Early brick forms

Drury dates the sanded forms to the later 13th to 14th centuries, and the strawed forms to the 14th/15th centuries, with EB8 possibly not appearing until the later 14th century. Strawed bases were slightly more frequent in the Duke Street assemblage.

A few bricks had traces of mortar which were probably related to their original use. The mortar contained coarse quartz sand inclusions and was generally buff in colour. However one EB2 brick from [18] had this type of mortar on both the stretcher face and a broken edge; either this brick was re-used in the medieval period or it had been cut down before the original use. Fragments from [10] were covered in a white medium sandy mortar.

The six 'late bricks' (LB) comprised two 'Tudor' types bricks from [118] with partial vitrification on one surface, a base fragment from a red-firing post-medieval brick from [95], a reduced grey/black brick with a rectangular frog from [183] (108 x 77mm; 19th-century or later), a machine-pressed brick of 19th-century or later date from [230], and a heavily vitrified fragment covered in a pale green glass-like deposit from [123].

Flooring

Two Flemish-type floor tiles (FFT) were collected from [99], both glazed in green/brown and both the larger type.

The majority of floor tiles (FT) recovered were post-medieval unglazed quarry tiles. Thirteen of the eighteen fragments were collected as sample <5> from a large group deposited in [219]. These showed signs of wear and varied in thickness from 21mm to 45mm. Several had chipped edges, presumably to make them fit in an existing floor, and some showed signs of sooting on the surface and edges. One had been cut diagonally prior to firing. Two other fragments of the same type were found in [118] also with burnt and blackened surfaces. The other three, from [99] and [118], were in different fabrics but were probably of similar size and date.

Miscellaneous

A large piece of sanitary ware (SW) in the form of a white earthenware toilet bowl was collected from [143]. It had a brown transfer-printed model name internally, 'THE CENTAUR', and externally another label with a royal crest and the type and maker: AFTER FLUSH CHAMBER/ TWYFORDS LTD, HANLEY. Twyfords became a limited company in 1896, so the fragment is likely to be of late 19th- or early 20th-century date.

One small fragment of Roman flanged tegula (FLT) was found in [178]. This was probably brought to the area in the Saxon period as it showed signs of burning. Roman tile was often re-used in hearths and, later, masonry structures. One other fragment [231], not certainly identified (UN), in an orange 'ms' fabric was covered in mortar but may be another piece of Roman tile.

Distribution

Much of the assemblage came from Trenches 5 and 6, as shown in Table 15.

form	T1	T2	T3	T4	T5	T6	U/S
RT			4		14	44	
RID	1				1	3	
VAL						1	
EB	8	3			27	54	2
LB		1			1	4	
FT						18	
FFT						2	
SW				1			
FLT					1		
UN					1	2	
Total	9	4	4	1	45	128	2

Table 15. Distribution of CBM forms by trench (fragment count).

The main structural contexts producing CBM in Trench 1 were a brick conduit [94] and a brick surface [101]. Both used early brick in their construction, but this material was often re-used at a later date. In Trench 2, the three early bricks came from a mortar lump [184] within the backfill of a modern drain ([371]) and the late brick from rubble layer [183]. The roof tile fragments from Trench 4 were all medieval and were from layer [399] and pit [439]. Trench 4 produced only the toilet fragment from make-up [143].

Most fragments in Trench 5 were recovered from pits, make-up and dump layers, but samples were also collected from wall foundations [10] and [231]. The former contained several early bricks, suggesting a 14th-century or later date. The latter contained fragments of medieval roof tile and a piece of possible Roman tile.

Trench 6 contained the largest assemblage, but most of this material had been used as hardcore in make-up and rubble layers. Structural features included flint walls [139] and [140] from which mortar samples and two half-bricks of late 13th–14th-century type were recovered; chalk surface [324] which contained fragments of medieval roof tile; soakaway [492] with two fragments of early brick; and brick drain [493] and its construction cut which produced nine early bricks, three medieval roof tiles and a ridge tile fragment.

Discussion

This assemblage contains a relatively high proportion of medieval CBM compared with many sites in Norwich. However, it lacks elements which occur elsewhere, most notably estuarine clay roof tiles and pantiles. The number of Flemish floor tiles is also unusually small, as is the 'late brick' assemblage. Those forms and fabrics which are present are typical of the city and were probably of local or regional origin.

A few structural features were identified, of which those sampled contained CBM of medieval date. Whilst it is possible that some of these could have been built from recycled materials, the lack of later material may suggest that the features were contemporary with the CBM, at least in the cases of the wall footings and drains. However, the majority of this material had been incorporated into make-up and rubble layers, or was found in the fill of pits. In some cases this may have been intentional, but small quantities within pits were probably deposited accidentally.

The quantity of early brick and roof tile recovered from a relatively small area suggests that there was a moderate to high status structure on the site in the 14th or 15th century, particularly as some of the fragments were incorporated into apparently contemporary walls. Most of the assemblage was recovered from two trenches at the east end of the site, close to the site of the Duke's Palace.

6.3 Mortar (Appendix 5)

By Sue Anderson

Introduction

Eleven fragments (3.481g) of mortar were collected from seven contexts. In addition, there were nine samples of mortar recovered from *in situ* structures. These are listed in Appendix 2. The mortars were divided into fabrics on the basis of macroscopic appearance, main inclusions and colour; any surface modifications were noted. Function was also interpreted where possible. Table 14 shows the main fabric groups and the contexts in which they were found.

Main inclusions	Colour	Contexts	CBM date
coarse sand, chalk and flint	buff	231 <4>, 344 <16>	med/lmed?
coarse sand, chalk and flint	grey	75	-
coarse sand, chalk and flint	white	178, 486	med
medium sand, chalk	cream	118	pmed
medium sand, chalk and flint	buff	406	lmed?
medium sand, chalk and flint	cream	10 <1>, 140 <23>, 178, 498, 572 <24>	med
medium sand, chalk and flint, red ?tile	grey-cream	139 <7>-<8>, 140 <6>	med
loose aggregate, uncertain	buff?	139 <22>	-

Table 14. Mortar types

Of the larger, dry fragments, two were identified as possible bedding for floor tiles, [118] and [178]. Fragments which were probably used in walling came from [178], [344] and [486], the latter two having impressions of flint cobbles and the former having traces of whitewash on one flat surface. A fragment from [406] consisted of a large lump with three smoothed flat faces making an irregular semi-hexagon in section. The central face was smooth and the other two were relatively rough, suggesting that the central face may have been visible, but the purpose of the piece is uncertain. Other fragments generally consisted of amorphous and undiagnostic lumps.

Of the samples, those which showed the greatest similarities were:

- sample <4> from wall footing [231] and sample <16> from mortar waste layer [344]
- samples <6>-<8> from walls [139] and [140].

Sample <23> from wall [140] appeared to be of different composition to <6>, as did sample <24> from the wall footings, but this would need to be tested by scientific analysis of the samples. The majority of fragments were associated with medieval or late medieval CBM, and similar mortar types were recorded adhering to medieval tiles. Only the fragment from [118] appears to be of post-medieval date.

6.4 Metal Working Debris (Appendix 6)

By Sarah Percival and Giles Emery

Eighty pieces of metal working debris weighing 1.962kg were recovered from sixteen contexts. The majority of metal working debris (1.429kg) from the site was recovered from Trench 1 as residual waste associated with early medieval dumping within a chalk quarry. Tapping slag, the residue from iron production, predominated and was found in thirteen contexts; including context 75 from Trench 1 which produced 44 pieces weighing 0.762kg. This material is marked with flow lines and was created during the tapping process of a bloomery furnace.

Residual waste from Late-Saxon and medieval metalworking has been recovered in large quantities from dumped make-up deposits along the edges of the River Wensum in the vicinity of the site, particularly off Oak Street and the site of the former Start Rite Factory (NHER 26525). Saxon structures relating to ironworking have also been recorded relatively close by at 50-54 Westwick Street (NHER 37379) and 12 Oak Street (NHER 26535) where intensive industrial activity of 11th to 12th century date, including industrial ironworking and smelting and smithing, was revealed.

A single piece of copper casting debris was found in context [379]. The debris is not closely datable.

6.5 Fired Clay (Appendix 7)

By Sarah Percival

Forty nine pieces of fired clay weighing 1.624kg were recovered from thirteen contexts as residual waste. Of these, 35 pieces were recovered from the fill of a Saxo-Norman quarry in Trench 1.

Two fabrics were identified:

- The first fabric, present in twenty four fragments (1.011 kg), comprises sub-rounded chalky pieces in a poorly mixed sandy clay matrix.
- The second fabric is dense and sandy with occasional flint or rounded quartz inclusions. Twenty five pieces weighing 0.613kg are of this sandy fabric.

Possible structural pieces with flat surfaces and withy impressions were recovered from contexts [73], [112] and [489]. The material from [489] is heavily burnt perhaps suggesting that the fired clay is from a hearth or oven.

6.6 Flint (Appendix 8)

By Sarah Bates

Introduction

Fifteen struck flints were recovered from the site. A total of forty-one fragments of burnt flint, weighing 1.412kg, were also found. They have been recorded and discarded as have a few large fragments of building flint.

Flint Type	Quantity
Flakes	9
Retouched blades	2
Scrapers	1
Building fragments	2
Struck fragments	1
Total	15
Burnt fragments	41

Table 16. Flints by type.

The assemblage

A total of nine flakes were found. One piece is slightly blade-like in form and is patinated white [282]. It came from the fill of a Saxo-Norman post-slot [281] in Trench 1. Several other flakes are quite sharp and fresh in appearance; some of which came from layers of sandy or clayey material deposited within Saxo-Norman Quarry activity in Trench 1.

Two retouched blades are present. One is an unstratified slightly irregular piece with cortex on its platform [200]. It has neat retouch at its distal end forming a blunt point. The other piece has slight retouch of part of its right edge. It came from a tip of chalky silt [280] in Trench 1; possibly the chalky context from which it came caused its white patina.

A thin smooth flake with a hinged fracture off its distal edge has slight reverse retouch along its proximal edge forming a straight, thin, scraper-like edge was found in fill [16] of pit [13]. The dorsal face of the flake appears to be slightly polished, perhaps due to wear of some kind.

Four pieces of flint from the site have been used as building material. All came from layers of make-up and flint rubble in Trench 6. The pieces have mortar adhering to them and have been 'dressed' to form flat faces on one side [99] and [406]. A large flint nodule [303], almost entirely cortical, but with some protrusions possibly having been deliberately removed, may represent the initial preparation of flint for use as building material.

The burnt flint from the site is undatable by form alone, it may have been accidentally burnt or, possibly, some of it may have been deliberately heated for use in heating water, cooking or other purposes before being incorporated into Saxo-Norman to Post-medieval deposits.

Discussion

Some of the flint from the site is likely to be of prehistoric date and represent activity in the vicinity of the site during that period. The two retouched blades are residual in later features but seem likely to be of Neolithic date. The flint adds to other lithic evidence from the banks of the Wensum River in this part of Norwich. For example, a few struck flakes of flint were recovered from the fill of Later Neolithic or Bronze Age pit at the site cut into fluvial sand at the site of the former Start-Rite factory (HER 40367). Other sites along the riverbank include Bussey's (HER 26442) to the east where most of the flint was consistent with a later Neolithic or Bronze Age date although a few pieces, struck by soft hammer and sometimes more heavily patinated, probably date to the earlier Neolithic period. Small numbers of struck flints, including a few blade-like pieces of possible earlier Neolithic date have also been found on Fishergate (HER 26521, 40497 and 26515), Duke Street (HER 40367) and Oak Street (Site 26503).

Some of the other material from the site is quite sharp or fresh in appearance and may represent debris from the knapping of medieval to post-medieval building flint. The several dressed pieces and fragments with mortar adhering to them were certainly used as building material and date to the later medieval period.

6.7 Faunal Remains (Appendix 9)

By Julie Curl

Summary

The remains of several mammals, birds and fish were recorded during the assessment of this faunal assemblage, including deer and at least one cetacean (sea mammal) bone. The range of species and butchering present strongly suggest high status food waste.

Methodology

All of the bone was examined to determine range of species and elements present. A note was also made of butchering and any indications of skinning, hornworking and other modifications. When possible a record was made of ages and any other relevant information, such as pathologies. Counts and weights were noted for each context that was examined in more detail. All information was recorded directly into a database for assessment. The assessment was carried out following a modified version of guidelines by English Heritage (Davis, 1992).

The assemblage

A total of 17.447kg of faunal mammal, bird and fish bones, consisting of 976 elements, were recovered from sixty-one contexts. Features producing faunal remains included pits, layers and post-holes, ranging in date from Saxo-Norman/Early Medieval to Post-Medieval. In terms of the number of bones, the majority (just over 60%) was produced from layers and make-up, with 36% of the assemblage recovered from pit fills. Table 17 shows a breakdown of the preliminary identification of the bones and feature types. The assemblage is in good condition. Many sufficiently complete elements are present which can provide identifications, measurements and some ageing and stature data. Fragmentation in the assemblage is primarily due to butchering and wear.

Feature	Species										Total
	<i>bird</i>	<i>bird - goose</i>	<i>cattle</i>	<i>cetacean</i>	<i>deer</i>	<i>fish</i>	<i>mammal</i>	<i>pig</i>	<i>Sheep /goat</i>	<i>small mammal</i>	
<i>?pit</i>							2				2
<i>layer</i>	10		45		6	10	138	5	22	1	237
<i>lens</i>			3				5				8
<i>make-up</i>	31		67	1	1	5	193	18	22	14	352
<i>Post-hole/pit</i>							2				2
<i>pit</i>	32	1	51			47	176	17	27	5	356
<i>post-hole</i>							1				1
<i>post-slot</i>							2				2
<i>tip</i>					3		6				9
Total	73	1	167	1	10	62	532	40	71	20	977

Table 17. Quantities of bones identified to species for each feature type.

Observations and discussion

The remains appear to be dominated by butchering and food waste from the main meat providing animals: cattle, sheep/goat and pig, although there are numerous bird, deer, fish and small mammal remains present.

Heavy butchering was noted on many of the bones in the assemblage, particularly in contexts [16] – fill of a 15th century waste pit, and [99] - a 15th to 16th century make-up. Cuts on a sheep metatarsal in [178] – fill of a medieval pit, suggest skinning. Butchering includes one scapula that may have been hung for smoking. The initial scan of the assemblages shows a dominance of the good quality meat bearing bones and few primary waste elements.

Some pathological conditions were noted during the assessment. A sheep metacarpal from deposit [75], a Saxo-Norman quarry tip, exhibited a pathology that may suggest tethering. A possible pathology was noted on a ?goose tibiotarsus in [16] that may be attributed to rickets and could suggest confined rearing of birds. The bird remains in [16] also included a smaller wild species of bird that needs further identification to species.

A juvenile cetacean vertebrae was recovered from [99], along with deer and a range of bird. The vertebrae is small, suggesting the probability of a porpoise or dolphin. The bone shows butchering, indicating the cetacean's use for food, these

animals are indicators of wealth alone and the association with remains of deer and birds is certainly indicative of high status eating.

Context [287], Saxo-Norman dated chalk waste in Trench 1, produced five fragments of antler tines. These are of a porous nature with smooth surfaces, unlike the normal rough textured surface of antler; these could be the first year antlers of a young male or the new year antler growth from antlers that are just emerging. Further fragments of a mature antler were recorded in chalk waste [280], also from Trench 1. No obvious working marks were observed, so it may be possible that this antler was not kept for craft use, but simply as a trophy.

Worked bone was noted in [171] from a medieval pit in Trench 5 in the form of a goose radius with an oblique cut at the distal end to form a pen (SF 1) ; the bone was also polished from use.

Conclusions

The cetacean bone and bird remains are of particular interest as they are indicative of high status food. The cetacean in particular is a relatively rare find in archaeological assemblages; similar remains were recorded at the Cathedral Refectory (Curl, 2006) where they were thought to be one of the most expensive medieval food items. Comparisons can be made with the assemblage at Norwich Cathedral and other local and national sites.

The pathologies in the assemblage are of interest, especially the possible rickets in the goose bone; this disease is an indication of intensive farming of birds and confinement in an enclosed space. This could suggest early 'battery farming' of geese in Norwich, of which there is little known evidence to date.

6.8 Molluscs (Appendix 10)

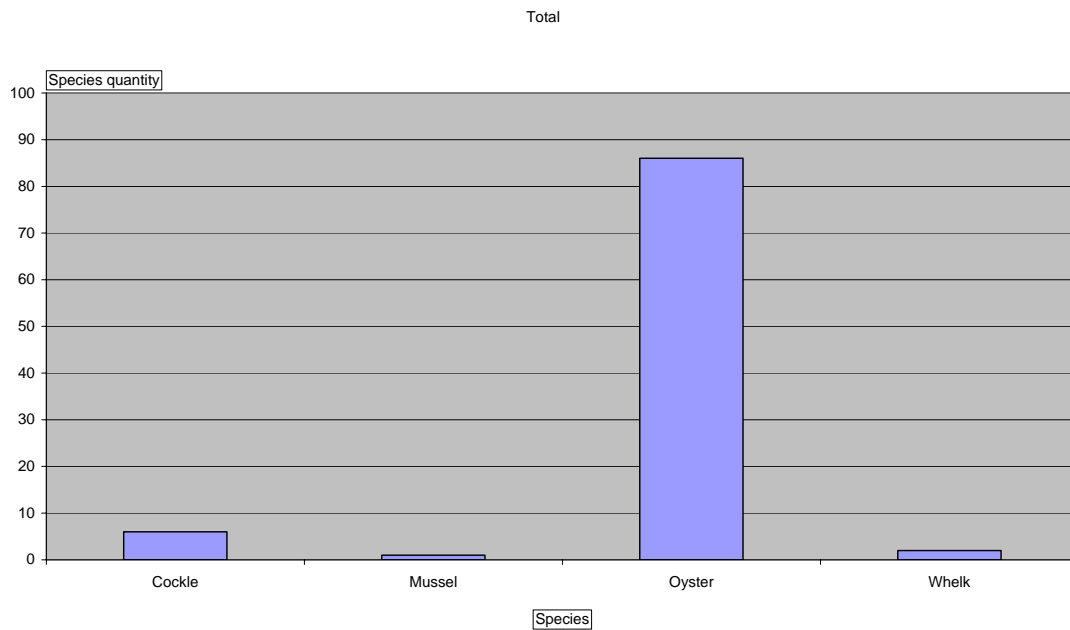
By Julie Curl

Methodology

For the purposes of the assessment, the molluscs were identified to groups (marine, freshwater and terrestrial molluscs) and identified to species. Shells are quantified (counts and weights) for each context and counts are made for each identifiable species. A catalogue of the assemblage is available with this report.

The mollusc assemblage and discussion

A total of 0.973kg of mollusc remains were recovered from twenty-six contexts. All of the remains in this assemblage were identified as marine molluscs, consisting of mostly oyster shells, with sparse remains of cockle, mussel and whelk. The dominance of oysters is shown in Graph 1.



Graph 1. Quantities of the four species of marine mollusc.

The remains are in reasonable condition. Numerous complete shells are present with the top and base shells of oysters in several contexts. The shell in [530] shows possible evidence of burning. These remains almost certainly represent marine molluscs used for food.

Conclusions

The four species of marine mollusc in this assemblage would have all been readily available around the Norfolk coast. The remains suggest that marine molluscs contributed to the Saxo-Norman, medieval and early post-medieval diet in the location of Duke Street as evidenced by the residual waste of shells across the site. Context 99, a 15th to 16th century make-up layer, included oyster and cockles alongside the bone of a marine mammal (cetacean - ?porpoise) and fish bones, all of which may have been part of a fairly high status diet which also included remains of deer and bird.

6.9 Clay Tobacco Pipe

By Giles Emery

The clay tobacco pipe assemblage consisted of three stem fragments and a single bowl fragment. All of these pieces were collected from the initial machine spoil of Trench 2 [198].

The assemblage represents a minimum of two pipes of a 19th century date (dating based on the London-type series of bowl forms [Oswald 1975] – no attempt was made to employ stem bore dating techniques). The bowl fragment shows no clear signs of having been smoked and exhibits a broken pedestal spur.

6.10 The Small Finds (Appendix 11)

By Julia Huddle with coin discussion by Andy Barnett (edited by Giles Emery)

Summary

A total of forty-six small finds were recovered on site:

- Trench 1: x4 Small Finds
- Trench 2: x3 Small Finds
- Trench 3: x4 Small Finds
- Trench 5: x13 Small Finds
- Trench 6: x22 Small Finds

They form a small but very interesting group and are from contexts dated from the Late Saxon through to the post-medieval period, although the vast majority are from contexts dated to the medieval and 15th-16th centuries. They mostly comprise objects of a domestic and personal nature. Small fragments of leather may have come from an item of clothing such as a leather jerkin and were recovered from waterlogged deposits of a likely *Saxo-Norman* date. Some of the ironwork is too fragmentary to be identified with certainty, but as with the nails most is likely to be from structural fittings.

Rare and interesting finds include a finely carved bone object thought to be associated with writing or manuscript production. A sealed copper alloy weight box was recovered from a late medieval context which may still contain a set of nested cup weights used to weigh coins, small objects and precious metals. The small finds are discussed by type below with further details listed in Appendix 11.

Bone Objects

Four bone objects were found on site:

- **Late Saxon pin-beater** (SF 25) of the type associated with the warp-weighted loom and recovered elsewhere from Late Saxon contexts; see for example those at Thetford (Rogerson 1984, 170) and Winchester, where an explanation is given as to how they might have been used with a two-beam loom for picking up a group of warp threads with the pointed end, the weft thread is passed behind them then the flatter end of the tool is used to push down the weft thread (Brown 1990, 227).
- Part of a **bone pin** (SF 5) is from a 15th-century context.
- A pen made from a goose radius (SF 1) from a probable 14th-century context may be compared to thirty-four similarly dated examples recovered from the fills of the barbican well at the excavations at Norwich castle where the ceramic assemblage indicates that infilling was concentrated in the mid to late 15th century (Popescu Shepherd forthcoming).
- An unusual **cylindrical object** (SF 22, Fig. 32), finely ornamented with one pointed and one bulbous end and a decorative band set almost in the middle, is an interesting find. Although no exact parallels for this object have so far been identified, stylistically it is similar to carved bone objects of the Late Saxon/early-

medieval period. It may have been associated with manuscript production, perhaps used as a burnisher or as an implement for ruling lines on parchment.

Ivory Comb

A small double-sided ivory comb (SF 21) with convex ends and fine teeth on one side and coarse teeth on the other is unstratified from Trench 6. A similarly-sized, but incomplete example was found in London from a mid to late 14th-century context. Ivory is extremely sensitive to soil conditions and it is generally only in anaerobic deposits that it is preserved in the ground.

Lava stone

Small pieces of lava quern stone with surviving worn flat grinding surfaces are invariably found from sites in Norwich, where they are recovered from Late Saxon through to post-medieval contexts. The two pieces recovered here, from Trench 3 (SF 28) and Trench 5 (SF 45), are from a 13th to 14th-century contexts. A variety of grinding purposes are possible for the querns, including the grinding of malt for brewing and for the production of flour (Smith 1993, 202).

Lead

A lead weight (SF 18), a stud (SF 17) and a neatly rolled strip (SF 20) are unstratified. The remaining two pieces (SF 19 & 31), both from medieval contexts, may have been used in or around buildings for example plumbing, roofing or guttering.

Leather

Thirty-nine small scraps of leather were recovered from anoxic conditions of a *Saxo-Norman* dated riverine deposit in Trench 3 (SF 46). All were characterised by extreme thinness. Most had at least one cut edge and some appear to have neatly folded edges. Two have slits and one small strip has stitching holes. All fragments were too featureless to ascertain whether this represents cobbling scrap or clothing fragments, the thinness of the leather would seem to suggest the latter is more likely. It is uncommon although not unknown to find leather in contexts dated to the 10-12th century, as for example those recovered at a waterfront excavation at St Martin-at-Palace Plain (Ayers 1987, 108). Leather recovered at a nearby evaluation at Westwick Street was predominantly from medieval deposits (Penn 2002).

Copper alloy

A total of thirteen copper alloy artefacts (SF 2, 3, 6-13, 24, 27 & 30) were recovered, over half of which are from Trench 6. Apart from an intrusive catch for a sliding bolt SF 27 [379], most are dated to the medieval or late medieval/early post-medieval period and comprise dress fittings of a type typically found elsewhere in Norwich from similarly-dated contexts. Two other objects are unusual: a domed hexagonal lid from a small vessel (SF 30) and a complete container with hinged lid and catch (SF11).

The hermetically sealed container is a weight box which may still contain a nested set of cup weights (Fig. 33). Cup weights sold in nested sets are known from the

mid 13th to 15th centuries and were used to weigh gold and silver coins, small objects and precious or scrap metals (Algar and Egan 2001, 125). A weight box with an original weight is known from West Dean, near Salisbury where others are listed including one from London from a context dated to 1235-80 (ibid. 125) and two dated to the 14th/15th century. The Norwich example is from a context with a likely 15th to 16th century date.

Iron

A total of seventeen small iron finds were recovered amounting to 22 pieces altogether, just over half of which comes from contexts with post-medieval ceramic building material. This assemblage comprises nails, strip and bar fragments, a ?tethering ring, a possible horseshoe fragment (of a type known from the 9th to 14th centuries), unidentified object fragments and three knife parts, one of which is unusual in that it has binding strips either side of the scale-tang handle (SF 32, Plate 21).

Worked stone objects

Part of a Norwegian Ragstone hone (SF 16) was collected from a medieval pit. Hones were used for sharpening bladed tools for trade, crafts and industries as well as knives for personal use. Norwegian Ragstone hones are typical of hones known from other excavations in Norwich.

An inverted conical-shaped piece of limestone with single central well is possibly part of a stone lamp (SF 34). Larger examples of conical-shaped stone lamps are known 13th-century contexts at York (Ottaway & Rogers 2002, 2859), although these have flat bases. If this object is correctly identified it may have been held in a bracket or hung in a loop from the ceiling.

Silver

Only one coin was recovered from the site (SF 4). This silver coin was found in Trench 6 in the fill of a pit containing post-medieval floor tiles. It is badly corroded to the point of being almost unidentifiable in its present condition, further x-rays and/or further cleaning might make it possible to pin down a more accurate identification.

The coins condition suggests that it is formed from debased silver. What can be discerned from looking at the flan is that obverse and reverse both have inner circles, demonstrating that the coin is hammered as opposed to milled. There appears to be the vestiges of drapery from the portrait on the obverse side and faint marks on the x-ray suggest a lateral arm of a long cross, with what appears to be a V-shaped end, bisecting the inner circle.

The coin is most likely to date between the 15th and 16th centuries but leaning more toward the 16th century and Henry VIII in particular. This is based on the visible terminal end of the long cross and the portrait drapery and is by no means conclusive. The use of debased silver could point to the third coinage of Henry VIII.

General Conclusions

Interesting and unusual finds were recovered on site, mostly of a personal and domestic nature. Evidence, particularly from Trench 1 of Saxo/Norman activity, is attested by a tool used with the two-beam loom and an unusual carved bone item, thought to be associated with writing. Leather found in Trench 3 from a rich organic Saxo-Norman dated deposit, indicates the potential for further recovery of leatherworking near or close to the river where favourable conditions for the preservation of organic materials exists. The leather was wet packed appropriately after recovery and has been sent to the Museum of London to be stabilised and conserved.

Trenches 5 and 6 provide clear evidence of occupation during the late medieval period including perhaps small scale industrial and mercantile activity perhaps testified by the recovery of a weight box. The box has been cleaned but remains sealed, standard x-ray was unable to ascertain if the box still contains its weights although the overall weight of the object may suggest this.

6.11 Worked Stone (Appendix 12)

By Sarah Percival

Four pieces of limestone and a granite cobble fragment were examined for closer identification and analysis. The piece of granite was from a rounded boulder or cobble and formed part of a flint cobble ?hearth arrangement of a possible 13th-century date [context 241]. Two pieces were of limestone which exhibited worked surfaces. The fragment from context [486] is from the fill of a 15th to 16th century soak-away. It has three surviving surfaces, one of which has scraps of mortar adhering whilst the opposing surface is weathered from exposure within an external structure. A fragment of fine Caen stone was recovered from the fabric of a Late medieval wall [10]. It has light diagonal fine-axe tooling on one face and may date to the 12th-century (Bernie Bartrum pers. comm.). Other pieces are not closely datable but all appear to have been used, or reused, as construction material.

7.0 The Sampled Evidence

7.1 Timber Samples

Scanned by Richard Darrah

Three small samples of timber were taken from three elements of a preserved timber structure discovered in anoxic conditions within Trench 3 (*Group context* 550). They have been subject to a preliminary scan to assess the quality of preservation and the potential of the remains, which remain *in-situ*.

The structure has been dated to the Saxo-Norman period, pottery sherds from deposits associated with the structure suggest an 11th century date. The timbers were partially exposed within the confines of an investigation sondage and may form the eastern edge of a timber walkway at the foreshore. The highest timber was encountered at 0.27m OD and the majority of the 'cross-boards' rested at c.0.00m OD. Several pieces of brushwood rested above the main elements. All timbers were context recorded and fairly unobtrusive timber samples taken from three of the twelve main elements which include planking, boards, stakes and an upright post.

All three samples demonstrated that preservation was excellent with no signs of insect or post-depositional damage. The two sampled boards and post were all of slow grown oak, consistent with a Late Saxon to early medieval date. Sample <19> was from a straight edged cleft plank [532] which exhibited very tight growth rings suggesting good potential for dendrochronological dating methods if the whole timber were to be lifted in any future intervention. Sample <20> was from a faster grown piece of oak in the form of a possibly reused board [533]. Sample <21> was taken from the outer part of slow grown oak post [534]. Outer sapwood and heartwood were both present which may allow for a felling date to be ascertained should the sample be submitted for C¹⁴ analysis.

7.2 Plant Macrofossil Samples and other remains (Appendix 13)

By Val Fryer

Introduction

Samples for the evaluation of the preservation and content of the plant macrofossil assemblages were taken from features within Trenches 2, 3, 5 and 6, and eight were submitted for assessment.

The samples were processed by manual water flotation/ washover and the flots were collected within a 500 mesh sieve. Four flots, which appeared to contain waterlogged macrofossils, were stored in water prior to sorting, but the remaining four were air-dried. All flots and wet retents were scanned under a binocular microscope at magnifications up to x 16, and the plant macrofossils and other remains noted are listed on Table 1. Nomenclature within the table follows Stace (1997). Both charred and waterlogged macrofossils were recorded, with the latter being suffixed in the table with a lower case 'w'.

Results

Cereal grains/chaff, seeds of common weeds and wetland plants, heathland plant remains and tree/shrub macrofossils were present at varying densities within all eight samples. Preservation of both the charred and waterlogged remains was moderately good, although most of the cereal grains were so severely puffed and distorted as a result of combustion at very high temperatures that a single oat (*Avena* sp.) grain was the only identifiable specimen recorded.

Rachis nodes of barley (*Hordeum* sp.), rye (*Secale cereale*), bread wheat (*Triticum aestivum/compactum*) and rivet wheat (*T. turgidum*) were recorded, most particularly within the fill of pit [212] (sample 3). Weed seeds were comparatively rare, with most of those recorded being of common segetal or grassland species.

Heathland plant remains, including ling (*Calluna vulgaris*) capsules, heather (*Ericaceae*) florets and stem fragments and bracken (*Pteridium aquilinum*) pinnules, were especially common with samples 3 (see above) and 11 (pit [472]). Charcoal fragments were present throughout along with pieces of charred root/stem, indeterminate culm fragments and culm nodes, moss fronds and small wood fragments.

Although other material types mostly occurred at a very low density, mineralised faecal concretions and fish bones were common within the small assemblage from sample 2 (pit 13]).

Conclusions

Sample 3 is from a fill within one of a series of pits of probable thirteenth century date, which were noted in trench 5. The assemblage contains a high density of cereal chaff, heather stem fragments and bracken fronds and is, perhaps, most consistent with a small deposit of spent fuel. Both heather and bracken were favoured as fuels for a number of domestic and light industrial purposes during the medieval period, as they ignited readily and rapidly reached a high temperature, which was maintained throughout the period of combustion. Cereal chaff was also commonly used as either kindling or an additional source of fuel.

Heather stem fragments are also abundant with the assemblage from thirteenth/fourteenth century pit [472] (Trench 3), a feature which has tentatively been ascribed an industrial function by the excavator.

The fragments of degraded bark/wood within sample 15 (layer [537]) are probably derived from the oak timber structures located at the base of the sequence within Trench 3.

The remaining assemblages contain insufficient material for conclusive interpretation, but do indicate that both charred and waterlogged macrofossils are well preserved within the archaeological horizons recorded during excavation.

8.0 Conclusions

The evaluation trenches 1 to 6 account for just over 1% of the total area of the site. Although the area has been subject to modern industrial development a good sequence of deep and well stratified archaeological deposits exists on the site. In general the trial trenches excavated to date have established that the observed deposit sequence begins with Late-Saxon activity sealed by medieval and post-medieval deposits. The industrial past of the Dukes Wharf site, although detrimental to some deposits through cellaring and foundation construction, has to some extent preserved a large area of land within the historic core of medieval Norwich which may otherwise have been subject to more piece-meal development. The Dukes Wharf site is one of a series of modern developments along the riverside which have been subject to archaeological excavation. Such recent sites include the Whitefriar's development, excavations at the site of the former Bussey's garage and Fishergate. The Dukes Wharf site offers a further opportunity to study the urban growth and economy of a sector of Norwich which has been subject to industrial activity and occupation for up to 1000 years.

A fairly large assemblage of finds was recovered which includes residual food waste associated with a high status diet; this includes an example of a porpoise/dolphin bone, one of the most expensive medieval food items. Several finds worthy of interest or comment were discovered, these include a sealed late medieval cup weight box which could still contain a set of nested weights and a late Saxon carved bone tool possibly for use as a writing implement. A large number of well preserved leather off-cuts were collected from a Saxo-Norman riverine deposit which may be cobbling or clothing waste.

Riverine deposits of Saxo-Norman to early medieval date were encountered by Trenches 2, 3 and 6 which suggest that much of the site consisted of marginal land until the medieval period. A well preserved timber structure resembling a walkway was found at the west of the site in Trench 2 which may be located at the

edge of the Late-Saxon foreshore. This structure was sealed below minor medieval consolidation suggesting that the medieval foreshore lay further north. The discovery of well preserved timbers suggests that the likelihood of further preserved timbers is fairly good.

The rear of the site appears to have been subject to Saxo-Norman chalk quarrying in the area of Trench 1. It is possible this activity extends along the east-west chalk scarp at the rear of the site. This activity is evidence for the initial growth of the post-conquest urban population and an increased demand for raw materials. Medieval quarry activity is encountered fairly regularly on urban sites within Norwich and the quarrying of chalk, sand and clay has been observed in many other parts of the city such as at Chapelfield and Ber Street, although this may be evidence of a particularly early phase of such activity.

Medieval activity was encountered in all but Trench 4 located closest to the upstanding buildings along the waterfront (which only exposed the former basement of the Electricity Works Depot). Documentary evidence suggests that from the 13th-century into the 1600s the site was well occupied by those involved with the textile industry and records suggest the presence of several medieval messuages across the site. The site forms part of an area of Norwich which was once the focus for a processing industry fundamental to the city's medieval textile industry. Evidence for some of the earliest processes and organisation of the medieval textile economy appear to be preserved on the site in the form of large numbers of processing pits of 13th to 14th century date. These pits were discovered in two locations on the site in Trenches 3 and 5 and appear to have served some form of industrial purpose, possibly associated with the Dying, Bleaching and Fulling processes

Two flint walls of a possible 15th century construction were revealed just below the modern make-up in Trench 6 which may have formed part of a stone building. These walls were impressive both in their depth and their state of preservation. Numerous surfaces and layers associated with the walls construction survived at their base. This building appeared to rest upon the clay sealed footings of an earlier medieval structure which may date to the 14th century. Demolition waste and recycled medieval building materials made use of in the new build may have been quarried out from buildings of this period. A wall constructed of finely sorted flints was revealed below the modern make-up in Trench 5 which also appears to have been constructed in the 15th century. Evidence of footings for a previous 14th century structure were also discovered in this trench.

These 15th or possibly 16th century walls are impressive in both their depth and preservation. It is possible that many of the flints and bricks used in their construction may have originated from the demolition of an earlier stone building located on the same site. Enrolled deeds indicate that this area of the site was well occupied from the late 13th to 14th century by medieval messuages which may well have included stone buildings or even timber buildings constructed upon stone foundations. The presence of a late to early post-medieval secular building perhaps constructed on the site of an earlier build is of particular interest as very few secular stone buildings survive from this period. From the 14th century, stone buildings were often replaced by timber framed constructions as stone became inconvenient and expensive to maintain (Rutledge 1999). These buildings may have their origins in the medieval period and offer the opportunity to study the

social organisation and development of medieval messuages in the city. Although medieval footings and plots have been excavated elsewhere in Norwich, such good preservation tied in with the significance of the site to a fairly high status occupation/ownership along with ties to a particular industry (such as the textile industry) marks out these features as particularly significant

Brick foundations and preserved rail-lines which once formed part of the Bullard's Anchor Brewery were revealed in the western area of the site. Although the development of the Bullard's Brewery is fairly well documented, the preserved rail lines and inverted arch foundations offer some potential to illustrate upon the workings of the one of Norwich's leading former Breweries, an industry now removed from the Norwich landscape.

The potential remains for evidence of further 19th-century industry in the north-eastern area of the site on the site of the Duke's Palace Ironworks. This factory once formed part of a group of contemporary iron works along the river in this location. Surviving products from the factory are of academic importance and the site itself was at the forefront of Victorian technological development. Any footings relating to this site will have been subject to several ground work projects from its demolition for the original Light Works in c.1900 through to the modern buildings which now occupy the site. Building work in the 1970s may have uncovered foundations of a steam hammer relating to the ironworks which may have been left in place due to its sheer scale.

The Dukes Palace was one of the grandest post-medieval buildings in the country and any remains of the Palace complex are potentially of national importance. The lost medieval lane of Bleckstershole appears to demarcate the western extent of the Duke of Norfolk's Palace complex. This lane is believed to have once run from south-north on the eastern side of the former Eastern electricity Board Social Club building. Any foundations or deposits associated with the Duke's Palace are likely to be situated along the eastern limit of the Duke's Wharf site, the majority of which is currently occupied by the Dukes Street frontage. This may include the north-western corner of the 17th century palace which would consist of large foundations as observed on the eastern side of Duke Street.

Recommendations for future work based upon this report will be made by Norfolk Landscape Archaeology.

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Appendix 1a: Context Summary

Type	C	Cut	M	Masonry	G	Group	MD	Metal detected Finds
	D	Deposit	T	Timber	U/S	Unstratified Finds	RF	Recorded Finds

Context	Type	Description	SSD	Period
1	D	Make-up (sandy hoggin)	T5	Modern
2	D	Make-up (rubble)	T5	Modern
3	D	Make-up (crushed brick)	T5	Modern
4	D	Make-up (chalky silty-clay)	T5	Modern
5	D	Make-up (chalky)	T5	Late Medieval
6	D	Make-up (silty-clay)	T5	Late Medieval
7	D	Infill (rubble)	T5	Modern
8	M	Wall Foundation (red-brick)	T5	Modern
9	M	Well (brick)	T5	Modern
10	M	Wall Foundation (flint & mortar)	T5	Late Medieval
11	M	Wall (brick)	T5	Modern
12	D	Backfill against [08]	T5	Modern
13	C	Pit (lozenge shaped)	T5	Late Medieval
14	C	Pit (sub-circular)	T5	Late Medieval
15	D	Fill of [13] (chalk)	T5	Late Medieval
16	D	Fill of [13] (clay-sand)	T5	Late Medieval
17	D	Fill of [13] (ashy silt)	T5	Late Medieval
18	D	Fill of [13] (silty-clay)	T5	Late Medieval
19	D	Fill of [13] (ashy mix)	T5	Late Medieval
20	VOID		T5	Late Medieval
21	D	Current Surface (asphalt over concrete)	T3	Modern
22	D	Make-up (rubble)	T3	Modern
23	D	Make-up (l rubble)	T3	Modern
24	D	Concrete surface (buried)	T3	Modern
25	D	Make-up (chalk)	T3	Modern
26	D	Layer (rubble)	T3	Modern
27	C	Construction trench (containing 30 + 31)	T3	Modern (L.19th +)
28	D	Layer (peat-ash rich)	T3	Medieval
29	D	Layer (silty-clay)	T3	Medieval
30	M	Foundation pad (brick)	T3	Modern (L.19th +)
31	M	Foundation pad (brick)	T3	Modern (L.19th +)
32	D	Make-up (clay + rubble mix)	T3	Modern (L.19th +)
33	D	Make-up (same as 32)	T3	Modern (L.19th +)
34	D	Fill of [81] (chalk)	T3	Medieval
35	D	Fill of [27] (rubble)	T3	Modern (L.19th +)
36	D	Layer (chalk)	T3	Medieval
37	D	Make-up (ashy-rubble)	T3	Modern
38	M	Wall Foundation (brick & flint)	T1	Modern (19th +)
39	M	Cellar walls (brick)	T1	Modern (19th +)
40	D	Infill of cellar 39 (rubble)	T1	Modern
41	D	Make-up (demolition rubble)	T1	Modern
42	C	Pit	T1	Medieval
43	D	Fill of [42] (mortar waste)	T1	Medieval
44	D	Fill of [42] (soil)	T1	Medieval
45	D	Fill of [42] (mortar waste)	T1	Medieval
46	D	Fill of [42] (soil)	T1	Medieval
47	D	Fill of [42] (mortar waste)	T1	Medieval
48	D	Fill of [42] (soil)	T1	Medieval

Context	Type	Description	SSD	Period
49	D	Fill of [42] (mortar waste)	T1	Medieval
50	D	Layer (v.sandy clay)	T1	Medieval
51	D	Layer (sandy-silt)	T1	Medieval
52	D	Layer (peat ashy)	T1	Medieval
53	D	Layer (chalky silty-clay)	T1	Medieval
54	D	Layer (peat ashy)	T1	Medieval
55	D	Layer (clay-silt)	T1	Medieval
56	D	Layer (chalky silty-clay)	T1	Medieval
57	D	Layer (peat ashy)	T1	Medieval
58	C	Pit	T1	Saxo-Norman
59	D	Fill of [58]	T1	Saxo-Norman
60	D	Layer (chalky)	T1	Saxo-Norman
61	D	Chalk natural	T1	-
62	C	Pit	T1	Saxo-Norman
63	D	Fill of [62] (tertiary fill)	T1	Saxo-Norman
64	D	Fill of [62] (secondary fill)	T1	Saxo-Norman
65	D	Fill of [62] (primary fill)	T1	Saxo-Norman
66	D	Layer (peat ashy)	T1	Medieval
67	D	Layer (ashy)	T1	Medieval
68	D	Layer (peat ashy)	T1	Medieval
69	D	Make-up (shallow tips)	T1	Medieval
70	D	Make-up (v.chalky)	T1	Medieval
71	D	Make-up (chalky)	T1	Medieval
72	D	Make-up (v.chalky) [?92]	T1	Saxo-Norman
73	D	Make-up (v.chalky clay-silt)	T1	Saxo-Norman
74	D	Make-up (v.chalky)	T1	Saxo-Norman
75	D	Make-up (charcoal rich clay-silt)	T1	Saxo-Norman
76	C	Pit	T1	Medieval
77	D	Fill of [76]	T1	Medieval
78	D	Fill of [14]	T5	Late Medieval
79	D	Fill of [14]	T5	Late Medieval
80	D	Fill of [14]	T5	Late Medieval
81	C	Pit	T3	Medieval
82	D	Fill of [81] (mineralised peat-ash)	T3	Medieval
83	D	Fill of [81] (sily-clay)	T3	Medieval
84	D	Make-up (stony sand)	T1	Late Medieval
85	D	Layer (chalky spread)	T1	Late Medieval
86	D	Lens (silt/clay mix)	T1	Medieval
87	D	Layer (chalky spread)	T1	Medieval
88	D	Layer (clay sand)	T1	Medieval
89	D	Layer (silty)	T1	Medieval
90	D	Same as (92)	T1	Saxo-Norman
91	VOID		T1	
92	D	Layer (chalky tip)	T1	Saxo-Norman
93	M	Conduit (brick)	T1	Late Medieval
94	C	Construction cut for 93	T1	Late Medieval
95	D	Fill of [100] (silty-sand)	T6	Modern
96	D	Fill of [98] (mortar debris)	T5	Late Medieval
97	D	Fill of [98] (mortar debris)	T5	Late Medieval
98	C	Construction cut for 10	T5	Late Medieval
99	D	Make-up (clay-silt)	T6	Late Medieval
100	C	Pit	T6	Post-medieval
101	M	?brick floor components	T1	Late Medieval
102	C	Same as [94]	T1	Late Medieval

Context	Type	Description	SSD	Period
103	D	Fill of [94] (chalky clay-sand)	T1	Late Medieval
104	D	Make-up/demolition layer (chalky)	T1	Modern
105	D	Infill of 93 (silty-sand)	T1	Late Medieval
106	D	Asphalt surface	T5	Modern
107	C	Disturbance/cut (v-shaped)	T5	Modern
108	D	Layer (ashy)	T1	Medieval
109	C	Pit/post-hole	T1	Medieval
110	D	Fill of [109] (clay-silt)	T1	Medieval
111	C	Pit	T1	Medieval
112	D	Fill of [111] (chalky clay-silt)	T1	Medieval
113	C	Construction cut for 114	T6	Modern
114	M	?Soak-away (modern brick structure)	T6	Modern
115	C	Post-hole	T6	Late med./E.p.med.
116	D	Fill of [115] (silty-sand)	T6	Late med./E.p.med.
117	C	Post-hole	T6	Late med./E.p.med.
118	D	Fill of [117] (sandy-clay)	T6	Late med./E.p.med.
119	D	Tip (silty-clay)	T6	Late Medieval
120	C	Construction cut for 08	T5	Modern
121	C	Construction cut for 11	T5	Modern
122	D	Backfill of [121] (chalk)	T5	Modern
123	D	Layer (mortar waste)	T6	Late Medieval
124	D	Layer (peat-ash/silty-clay)	T6	Late Medieval
125	D	Layer (silty-clay)	T6	Late Medieval
126	D	Layer (mortar waste)	T6	Late Medieval
127	D	Make-up (silty-sand)	T6	Late Medieval
128	D	Layer (mortar waste)	T6	Late Medieval
129	D	Layer (?=491)	T6	Late Medieval
130	D	Upper fill of [120] (rubble)	T5	Modern
131	C	Pit	T5	Post-medieval
132	D	Fill of [131] (chalky silty-clay)	T5	Post-medieval
133	D	Layer (chalk)	T5	Late medieval
134	D	Same as (06)	T5	Late Medieval
135	D	Same as (06)	T5	Late Medieval
136	C	Construction cut for 09	T5	Modern
137	D	Backfill of [136] (clay/sand)	T5	Modern
138	D	Same as (04)	T5	Modern
139	M	Wall (flint)	T6	Late Medieval
140	M	Wall (flint)	T6	Late Medieval
141	D	Asphalt surface	T4	Modern
142	D	Layer (sand hoggin)	T4	Modern
143	D	Make-up (rubble)	T4	Modern
144	C	Levelling activity	T4	Modern
145	D	Layer (rubble)	T4	Modern
146	M	Concrete Surface	T4	Modern
147	D	Layer (soot/charcoal)	T4	Modern
148	M	Wall (brick)	T4	Modern
149	M	Concrete Basement Wall	T4	Modern
150	M	Concrete Basement Wall	T4	Modern
151	D	Same as (05)	T5	Late medieval
152	C	Edge of (153)	T5	Late Medieval
153	D	Layer (chalk)	T5	Late Medieval
154	D	Layer (mortar/clay/flint rubble)	T5	Late Medieval
155	D	Same as (06)	T5	Late Medieval
156	D	Fill of [14] (clay)	T5	Late Medieval

Context	Type	Description	SSD	Period
157	D	Fill of [14] (ashy)	T5	Late Medieval
158	D	Infill of [11] (rubble)	T5	Modern
159	D	Layer (rubble)	T4	Modern
160	D	Fill of [161]	T4	Modern
161	C	Pit	T4	Modern
162	D	Levelling deposit (silt)	T6	Modern
163	D	Levelling deposit (mortar debris/rubble)	T6	Modern
164	D	Make-up (silty loam)	T6	E.Post-medieval
165	D	Make-up (sandy-silt)	T6	E.Post-medieval
166	C	Pit	T6	Modern
167	D	Fill of [166] (demolition waste)	T6	Modern
168	M	Same as 231	T5	Medieval
169	C	Pit	T5	Medieval
170	D	Fill of [169] (sandy-clay)	T5	Medieval
171	D	Fill of [169] (clay-silt)	T5	Medieval
172	D	Make-up (chalky silty-clay)	T5	Medieval
173	D	Same as (210)	T5	Medieval
174	D	Same as (204)	T5	Late Medieval
175	D	Same as (208)	T5	Late Medieval
176	D	Fill of [269] (chalk)	T5	Late Medieval
177	D	Fill of [269] (clay-silt)	T5	Late Medieval
178	D	Fill of [169] (organic/clay-silt)	T5	Medieval
179	M	Pad (brick)	T2	Modern (C19th+)
180	M	Pad (brick)	T2	Modern (C19th+)
181	M	Pad (brick)	T2	Modern (C19th+)
182	G	Rail lines	T2	Modern (C19th+)
183	D	Layer (rubble inserted below 182)	T2	Modern (C19th+)
184	D	Mortar lump within (370)	T2	Modern (C19th+)
185	D	Asphalt surface	T2	Modern
186	D	Concrete surface	T2	Modern
187	D	Layer (stony silty-sand)	T2	Modern
188	D	Make-up (sand)	T2	Modern
189	D	Make-up (rubble)	T2	Modern
190	D	Concrete slab	T2	Modern
191	D	Concrete surface associated with 182	T2	Modern (C19th+)
192	D	Rubble	T2	Modern (C19th+)
193	D	Layer (chalk)	T2	Modern (C19th+)
194	D	Layer (thin ashy)	T2	Modern (C19th+)
195	D	Layer (rubble)	T2	Modern (C19th+)
196	D	Same as (172)	T5	Medieval
197	D	Same as (172)	T5	Medieval
198	U/S	Finds from spoil	T2	-
199	U/S	Finds from spoil	T3	-
200	U/S	Finds from spoil	T5	-
201	U/S	Finds from spoil	T6	-
202	D	?Fill of [98]	T5	Late Medieval
203	D	Fill of [14] (chalky sandy-clay)	T5	Late Medieval
204	D	Fill of [14] (sandy-clay)	T5	Late Medieval
205	D	Fill of [14] (mixed)	T5	Late Medieval
206	D	?Same as (154)	T5	Late Medieval
207	D	Layer (clay levelling deposit)	T5	Late Medieval
208	D	Fill of [269] (clay)	T5	Late Medieval
209	D	Layer (clay)	T5	Medieval
210	D	Layer (sandy-clay)	T5	Medieval

Context	Type	Description	SSD	Period
211	D	Layer (sandy-clay)	T5	Medieval
212	C	Pit/hearth	T5	Medieval
213	D	Residue (black/ashy) in base of Pit [212]	T5	Medieval
214	D	Oxidised edges of (237)	T5	Medieval
215	D	Oxidised sides of [212]	T5	Medieval
216	D	Layer (clay + mortar debris)	T5	Late Medieval
217	D	Layer (sandy-clay)	T5	Late Medieval
218	D	Layer (clay + mortar debris)	T5	Late Medieval
219	D	Fill of [100] (brick rubble)	T6	Modern
220	D	Fill of [100] (clay-silt/demolition waste)	T6	Modern
221	D	Fill of [100] (rubble/clay-silt)	T6	Modern
222	D	Layer (demolition rubble)	T6	Modern
223	M	Brick structure	T6	Modern
224	D	Concrete	T6	Modern
225	D	Make-up (sand)	T6	Modern
226	M	Mortar surface (associated with 223)	T6	Modern
227	D	Make-up (sandy-clay)	T5	Medieval
228	D	Fill of [271] (mixed)	T5	Medieval
229	D	Layer (organic rich)	T5	Medieval
230	D	Layer (clay-silt)	T5	Medieval
231	M	Wall footing (flint & mortar)	T5	Medieval
232	D	Layer (sandy-clay)	T5	Medieval
233	D	Fill of [270] (ashy lenses)	T5	Medieval
234	D	Layer (silty-clay)	T5	Medieval
235	D	Layer (chalky silty-clay)	T5	Medieval
236	D	Layer (chalky silty-clay)	T5	Medieval
237	D	Layer (sandy-clay dump)	T5	Medieval
238	D	Fill of [265] (clay above thin charcoal lens)	T5	Medieval
239	D	Layer (silty-clay)	T5	Medieval
240	D	Fill of [265] (mixed infill)	T5	Medieval
241	D	?Hearth stones	T5	Medieval
242	D	Fill of [251] (charcoal/organic residue)	T5	Medieval
243	D	Fill of [251] (mixed infill)	T5	Medieval
244	D	Fill of [251] (silty-clay)	T5	Medieval
245	C	Pit	T5	Medieval
246	D	Fill of [245] (silty-clay)	T5	Medieval
247	C	Pit	T5	Medieval
248	D	Fill of [247] (silty-clay)	T5	Medieval
249	D	Layer (v. chalky)	T5	Medieval
250	D	Layer (clay-silt)	T5	Medieval
251	C	Pit/hearth	T5	Medieval
252	D	Infill of [212]	T5	Medieval
253	D	Clay basal lining (vitrified) of [212]	T5	Medieval
254	D	Ashy residue within [212]	T5	Medieval
255	D	Clay basal lining of [212]	T5	Medieval
256	D	Fill of [257] (clay-silt)	T5	Medieval
257	C	Pit/hearth	T5	Medieval
258	D	Clay basal lining of [257]	T5	Medieval
259	D	Fill of [257] (ashy residue)	T5	Medieval
260	D	Fill of [257] (clay ?lining)	T5	Medieval
261	D	Fill of [257] (mixed infill)	T5	Medieval
262	D	Layer (ashy/organic silt)	T5	Medieval
263	D	Layer (sandy-clay dump)	T5	Medieval
264	D	Basal lining of [265]	T5	Medieval

Context	Type	Description	SSD	Period
265	C	Shallow cut - ? Pit/hearth	T5	Medieval
266	D	Fill of [269] (silty-clay)	T5	Late Medieval
267	D	Fill of [269] (sandy-clay)	T5	Late Medieval
268	D	Layer/lens (silty-clay)	T5	Medieval
269	C	?Large Pit	T5	Late Medieval
270	C	? Pit/hearth	T5	Medieval
271	C	Pit	T5	Medieval
272	D	Fill of [265] (clay-silt)	T5	Medieval
273	D	Layer (chalky clay-silt)	T5	Medieval
274	D	Fill of [247] (mix with oxidised clay lumps)	T5	Medieval
275	D	Fill of [247]] (ashy/organic)	T5	Medieval
276	D	Fill of [274] (silty-clay)	T5	Medieval
277	D	Augured deposit	T5	Medieval
278	D	Layer (clay-silt)	T5	Medieval
279	D	Lens (sandy-clay lumps)	T5	Medieval
280	D	Tip (chalky silt)	T1	Saxo-Norman
281	C	Post-slot	T1	Saxo-Norman
282	D	Fill of [281] (clay-silt)	T1	Saxo-Norman
283	C	Post-hole	T1	Saxo-Norman
284	D	Fill of [283] (clay-silt)	T1	Saxo-Norman
285	M	Wall (brick)	T6	Modern
286	M	Foundation (brick with curved buttresses)	T2	Modern (C19th+)
287	D	Layer (Chalk waste/silty-clay)	T1	Saxo-Norman
288	D	Layer (clay-silt)	T1	Saxo-Norman
289	D	Layer (chalk-silt)	T1	Saxo-Norman
290	D	Layer (clay)	T1	Saxo-Norman
291	C	Pit (containing chalk quarry-waste)	T1	Saxo-Norman
292	D	Fill of [291] (chalk waste)	T1	Saxo-Norman
293	D	Fill of [291] (sand)	T1	Saxo-Norman
294	D	Tip (fine chalk waste)	T1	Saxo-Norman
295	D	Slumping (sandy)	T1	Saxo-Norman
296	D	Slumped chalk layer	T1	Saxo-Norman
297	D	Fill of [309] (silty-clay)	T1	Saxo-Norman
298	D	Fill of [309] (chalk/silty-clay mix)	T1	Saxo-Norman
299	D	Fill of [309] (sand)	T1	Saxo-Norman
300	D	Fill of [309] (chalk)	T1	Saxo-Norman
301	D	Fill of [309] (sand)	T1	Saxo-Norman
302	D	Fill of [309] (chalky silty-clay)	T1	Saxo-Norman
303	D	Layer/tip (sand)	T1	Saxo-Norman
304	D	Layer/tip (sand)	T1	Saxo-Norman
305	D	Layer (gritty sandy-clay)	T1	Saxo-Norman
306	D	Same as (303)	T1	Saxo-Norman
307	D	Chalk waste	T1	Saxo-Norman
308	D	Same as (305)	T1	Saxo-Norman
309	C	Pit	T1	Saxo-Norman
310	C	Quarry Activity	T1	Saxo-Norman
311	D	Layer (chalk)	T2	Modern (C19th+)
312	D	Layer (sandy-silt)	T2	Modern (C19th+)
313	D	Layer (sandy-silt)	T2	Modern (C19th+)
314	D	Layer (v.chalky sandy-silt)	T2	Modern (C19th+)
315	D	Layer (silty-clay)	T2	Modern (C19th+)
316	D	Layer (sandy-silt)	T2	Modern (C19th+)
317	D	Lens (mortar)	T2	Modern (C19th+)
318	D	Layer (silty-clay)	T2	Medieval

Context	Type	Description	SSD	Period
319	D	Layer (sandy-silt)	T2	Medieval
320	D	Layer (chalky sandy-silt)	T2	Medieval
321	C	Pipe trench	T2	Modern
322	D	Fill of [321]	T2	Modern
323	D	Layer (silty-clay)	T1	Saxo-Norman
324	D	Chalky surface	T6	Late Medieval
325	C	Post-hole	T6	Late Medieval
326	C	Post-hole	T6	Late Medieval
327	D	Fill of [309] (sand)	T1	Saxo-Norman
328	D	Layer (peat ash rich)	T6	Late Medieval
329	C	Construction cut for 226	T6	Modern
330	D	Fill of [325]	T6	Late Medieval
331	D	Fill of [326]	T6	Late Medieval
332	D	Fill of [291] (chalk)	T1	Saxo-Norman
333	D	Fill of [291] (v.sandy loam)	T1	Saxo-Norman
334	D	Fill of [291] (chalk)	T1	Saxo-Norman
335	D	Fill of [291] (v.sandy loam)	T1	Saxo-Norman
336	D	Layer (charcoal)	T6	Late Medieval
337	D	Layer (silt)	T2	?Early medieval
338	D	Layer (silty-sand)	T2	?Early medieval
339	D	Layer (alluvial silt)	T2	?Early medieval
340	D	Layer (organic detritus)	T2	?Early medieval
341	D	Layer (chalk)	T2	?Early medieval
342	D	Layer (sand)	T2	?Early medieval
343	D	Layer (peat)	T2	?Early medieval
344	D	Layer (mortar waste)	T6	Late Medieval
345	D	Mortar/flint metalled surface	T6	Late Medieval
346	M	Brick structure	T4	Modern
347	D	Layer/temporary surface (stony silty-clay)	T6	Late Medieval
348	D	VOID	T6	
349	C	Construction cut for 286	T2	Modern (C19th+)
350	D	Fill of [351] (rubble)	T2	Modern (C19th+)
351	C	Footprint for rail sleepers	T2	Modern (C19th+)
352	D	Lens (within 353)	T2	Modern (C19th+)
353	D	Same as (193)	T2	Modern (C19th+)
354	D	Lens (within 353)	T2	Modern (C19th+)
355	D	Layer (mortar)	T2	Modern (C19th+)
356	D	Lens (within 353)	T2	Modern (C19th+)
357	D	Same as (194)	T2	Modern (C19th+)
358	D	Layer (silty-clay)	T2	Modern (C19th+)
359	D	Layer (silty-clay, within 354)	T2	Medieval
360	D	Layer (silty-clay, within 354)	T2	Medieval
361	D	Layer (silty-clay, within 354)	T2	Medieval
362	D	Layer (silty-clay, within 354)	T2	Medieval
363	D	Layer (silty-clay, within 354)	T2	Medieval
364	D	Layer (silty-clay, within 354)	T2	Medieval
365	D	Layer (silty)	T2	Medieval
366	D	Fill of [368] (sand)	T2	Medieval
367	D	Fill of [368] (peat-ash)	T2	Medieval
368	C	?Pit base	T2	Medieval
369	D	Layer (silty-clay, within 354)	T2	Medieval
370	D	Fill of [371]	T2	Modern (C19th+)
371	C	Pipe trench	T2	Modern (C19th+)
372	M	Basement wall (concrete)	T4	Modern

Context	Type	Description	SSD	Period
373	D	Layer (silty-clay, within 354)	T2	Medieval
374	D	Layer (silty-clay)	T2	Medieval
375	D	Layer (gritty clay-silt)	T6	Late Medieval
376	D	Same as (195)	T2	Modern (C19th+)
377	M	Brick foundation	T3	Modern (C19th+)
378	U/S	Metal detected finds from spoil	T2	-
379	U/S	Finds recovered from reduction of (324)	T6	Late medieval
380	C	Pit	T6	Medieval
381	D	Fill of [380] (organic silt)	T6	Medieval
382	D	Layer (clay-silt) [?=506]	T3	Medieval
383	D	Layer (clay-silt)	T3	Medieval
384	D	Layer (clay-silt)	T3	Medieval
385	D	Layer (clay-silt)	T3	Medieval
386	C	Pit	T3	Medieval
387	D	Fill of [386] (ashy-silt)	T3	Medieval
388	D	Fill of [386] (ashy-silt)	T3	Medieval
389	D	Fill of [386] (ashy-silt)	T3	Medieval
390	D	Layer (clay-silt)	T3	Medieval
391	D	Layer (v. chalky clay-silt)	T3	Medieval
392	C	Pit	T3	Medieval
393	D	Fill of [392] (ashy-silt)	T3	Medieval
394	D	Fill of [392] (ashy-silt)	T3	Medieval
395	D	Fill of [392] (ashy-silt)	T3	Medieval
396	D	Fill of [392] (ashy-silt)	T3	Medieval
397	D	Fill of [392] (ashy-silt)	T3	Medieval
398	D	Layer (clay-silt)	T3	Medieval
399	D	Layer (peat-ashy)	T3	Medieval
400	D	Layer (clay-silt)	T3	Medieval
401	D	Layer (chalk)	T3	Medieval
402	D	Layer (silt)	T3	Medieval
403	D	Same as (36)	T3	Medieval
404	D	Same as (32)	T3	Modern (L. 19th +)
405	D	Layer (chalky clay-silt)	T3	Medieval
406	D	Layer (flint rich rubble)	T6	Late Medieval
407	D	Fill of [513] (clay-silt)	T3	Medieval
408	D	Fill of [414] (oxidised clay)	T3	Medieval
409	D	Fill of [414] (silt)	T3	Medieval
410	D	Fill of [414] (silt)	T3	Medieval
411	D	Fill of [414] (oxidised clay)	T3	Medieval
412	D	Layer (clay-silt)	T3	Medieval
413	D	Same as (29)	T3	Medieval
414	C	Pit	T3	Medieval
415	D	Fill of [438] (dense greenish clay)	T3	Medieval
416	D	Fill of [438] (silt-clay)	T3	Medieval
417	D	Fill of [438] (peat-ashy)	T3	Medieval
418	D	Fill of [438] (silt)	T3	Medieval
419	D	Fill of [438] (chalk)	T3	Medieval
420	D	Fill of [438] (silt)	T3	Medieval
421	D	Fill of [438] (silt)	T3	Medieval
422	D	Fill of [439] (silt)	T3	Medieval
423	C	Pit	T3	Medieval
424	D	Fill of [429] (silt)	T3	Medieval
425	D	Fill of [429] (gritty sand)	T3	Medieval
426	C	Pit	T3	Medieval

Context	Type	Description	SSD	Period
427	D	Fill of [429] (silt)	T3	Medieval
428	D	Fill of [429] (silt)	T3	Medieval
429	D	Fill of [423] (peat-ash/clay mix)	T3	Medieval
430	D	Fill of [423] (silt)	T3	Medieval
431	D	Fill of [423] (silt)	T3	Medieval
432	D	Same as (29)	T3	Medieval
433	D	Same as (32)	T3	Modern (L.19th +)
434	D	Fill of [438] (black residue)	T3	Medieval
435	D	Fill of [438] (dense clay basal fill)	T3	Medieval
436	D	Fill of [439] (silt)	T3	Medieval
437	D	Fill of [438] (orange/yellow silts)	T3	Medieval
438	C	Pit	T3	Medieval
439	C	Pit	T3	Medieval
440	C	Pit	T3	Medieval
441	D	Fill of [440] (silty-sand)	T3	Medieval
442	D	Fill of [440] (sandy-silt)	T3	Medieval
443	D	Fill of [440] (silty-sand)	T3	Medieval
444	C	Pit	T3	Medieval
445	D	Fill of [444] (greenish sandy-silt)	T3	Medieval
446	D	Fill of [444] (black sandy-silt)	T3	Medieval
447	C	Pit	T3	Medieval
448	D	Fill of [447] (sandy-silt)	T3	Medieval
449	D	Fill of [447] (chalky sandy-silt)	T3	Medieval
450	C	Pit	T3	Medieval
451	D	Fill of [450] (ashy/organic silts)	T3	Medieval
452	D	Fill of [450] (blue/yellow/grey organic silts)	T3	Medieval
453	D	Fill of [450] (ashy/organic silts)	T3	Medieval
454	D	Fill of [450] (brown/yellow organic silts)	T3	Medieval
455	D	Fill of [450] (ashy/organic silts)	T3	Medieval
456	D	Fill of [450] (blue-grey organic silts)	T3	Medieval
457	D	Fill of [450] (ashy/organic silts)	T3	Medieval
458	D	Fill of [450] (ashy/organic silts)	T3	Medieval
459	D	Fill of [450] (sandy-silt)	T3	Medieval
460	D	Fill of [450] (chalk)	T3	Medieval
461	D	Fill of [450] (clay silt/organic silts)	T3	Medieval
462	D	Fill of [450] (ashy silt)	T3	Medieval
463	D	Fill of [450] (greenish silt)	T3	Medieval
464	D	Fill of [450] (sandy-silt)	T3	Medieval
465	C	Pit	T3	Medieval
466	D	Fill of [465] (organic/sandy-silts)	T3	Medieval
467	D	Fill of [465] (organic/sandy-silts)	T3	Medieval
468	D	Fill of [465] (black ?ashy residue)	T3	Medieval
469	D	Fill of [465] (pale yellow silt)	T3	Medieval
470	D	Fill of [465] (sandy-silt)	T3	Medieval
471	D	Fill of [465] (pale yellow silt)	T3	Medieval
472	D	Fill of [465] (pink, orange + brown sandy-silts)	T3	Medieval
473	D	Fill of [465] (laminated ?ashy/organic silts)	T3	Medieval
474	D	Fill of [465] (ashy sandy-silt)	T3	Medieval
475	D	Fill of [465] (orange sandy-silt)	T3	Medieval
476	D	Fill of [465] (orange clay-sit)	T3	Medieval
477	D	Fill of [465] (?charcoal residue)	T3	Medieval
478	D	Fill of [465] (?oxidised lenses)	T3	Medieval
479	D	Fill of [465] (organic silts)	T3	Medieval
480	C	Pit	T3	Medieval

Context	Type	Description	SSD	Period
481	D	Fill of [480] (blue/black sandy-silt)	T3	Medieval
482	D	Fill of [480] (chalk)	T3	Medieval
483	D	Fill of [480] (ashy residue)	T3	Medieval
484	D	Fill of [480] (sandy-silt)	T3	Medieval
485	Void			
486	D	Fill of [492] (flint cobbles)	T6	Late Medieval
487	D	Layer (thin clay-silt)	T6	Late Medieval
488	D	Fill of [494] (firm chalk)	T6	Late Medieval
489	D	Make-up (peat-ashy)	T6	Late Medieval
490	D	Layer (clay-silt)	T6	Late Medieval
491	D	?Trample Layer (clay-silt)	T6	Late Medieval
492	C	Soak-away – 'French-drain style'	T6	Late Medieval
493	M	Remnants of ?robbed brick drain	T6	Late Medieval
494	C	Const. trench for 493	T6	Late Medieval
495	D	Make-up (peat-ashy)	T6	Late Medieval
496	D	Layer/temporary surface (silty-clay)	T6	Late Medieval
497	D	Layer/dump (mortar/silty-clay)	T6	Late Medieval
498	D	Layer (flint + mortar debris)	T6	Late Medieval
499	D	Layer (sandy-silt)	T3	Medieval
500	D	Layer (sandy-silt)	T3	Medieval
501	D	Fill of [519] (silt)	T3	Medieval
502	D	Fill of [519] (peat-ash)	T3	Medieval
503	D	Fill of [519] (peat-ash)	T3	Medieval
504	D	Layer (sandy-silt)	T3	Medieval
505	D	Layer (silt)	T3	Medieval
506	D	Same as (382)	T3	Medieval
507	C	Stake-hole	T6	Late Medieval
508	D	Fill of [507]	T6	Late Medieval
509	C	Stake-hole	T6	Late Medieval
510	D	Fill of [509]	T6	Late Medieval
511	C	Stake-hole	T6	Late Medieval
512	D	Fill of [511]	T6	Late Medieval
513	C	?Pit	T3	Medieval
514	D	Layer (clay-silt)	T6	Late Medieval
515	D	Layer (thin mortar)	T6	Late Medieval
516	D	Layer (thin mortar/sand)	T6	Late Medieval
517	D	Layer (chalk)	T6	Late Medieval
518	D	Layer (silt/charcoal)	T6	Medieval
519	C	Pit	T6	Medieval
520	D	Layer (silt)	T3	Saxo-Norman
521	D	Lens (organic rich silt)	T3	Medieval
522	D	Lens (organic rich silt)	T3	Medieval
523	D	Layer (silt)	T3	Medieval
524	D	Layer (silt)	T3	Medieval
525	D	Layer (silt)	T3	Medieval
526	D	Layer (silt)	T3	Medieval
527	D	Layer (silt)	T3	Medieval
528	D	Layer (clay-silt)	T3	Medieval
529	D	Layer (silt)	T3	Medieval
530	D	Layer (chalky-silt)	T3	Saxo-Norman
531	D	Layer (peaty-silt)	T3	Saxo-Norman
532	T	Plank (part of 550)	T3	Saxo-Norman
533	T	Plank (part of 550)	T3	Saxo-Norman
534	T	Post (part of 550)	T3	Saxo-Norman

Context	Type	Description	SSD	Period
535	D	Layer (peaty-silt)	T3	Saxo-Norman
536	D	Layer (v.chalky silt)	T3	Saxo-Norman
537	D	Layer (silt)	T3	Saxo-Norman
538	D	Lens (silty-sand)	T3	Saxo-Norman
539	T	Wood fragment	T3	Saxo-Norman
540	T	Structural timber(part of 550)	T3	Saxo-Norman
541	T	Wood (?branch)	T3	Saxo-Norman
542	T	Plank (part of 550)	T3	Saxo-Norman
543	T	Wood fragment (?part of 550)	T3	Saxo-Norman
544	T	Stake (part of 550)	T3	Saxo-Norman
545	T	Wood (part of 550)	T3	Saxo-Norman
546	T	Wood (part of 550)	T3	Saxo-Norman
547	T	Wood (part of 550)	T3	Saxo-Norman
548	T	Wood (branch)	T3	Saxo-Norman
549	T	Plank (part of 550)	T3	Saxo-Norman
550	G	Timber Structure (riverine)	T3	Saxo-Norman
551	D	Layer (clay-silt)	T3	Medieval
552	D	Layer (silty-peat)	T3	Saxo-Norman
553	T	Plank (part of 550)	T3	Saxo-Norman
554	D	Layer (peat-ash)	T3	Medieval
555	D	Layer (peat-ash)	T3	Medieval
556	D	Layer (peat-ash)	T3	Medieval
557	D	Layer (silt)	T3	Medieval
558	D	Layer (chalky-silt)	T3	Medieval
559	D	Layer (clay-silt)	T3	Medieval
560	D	Same as (382)	T3	Medieval
561	D	Layer (chalk + silt laminations)	T3	Saxo-Norman
562	D	Layer (peat)	T3	Saxo-Norman
563	D	Layer (silty-sand)	T3	Saxo-Norman
564	D	Layer (silt)	T3	Saxo-Norman
565	C	Pit	T6	Medieval
566	M	Footings below wall 139 (flint + mortar)	T6	Medieval
567	D	Fill of [565] (oxidised silt)	T6	Medieval
568	D	Fill of [565] (charcoal/silt)	T6	Medieval
569	D	Fill of [565] (clay-silt)	T6	Medieval
570	D	Layer (silty-clay)	T6	?Late Medieval
571	D	Layer (chalk)	T3	Medieval
572	M	Footings below wall 140 (flint + mortar)	T6	Medieval
573	D	Layer (chalk)	T6	Medieval
574	D	Fill of [565] (clay-silt)	T6	Medieval
575	D	Fill of [565] (clay)	T6	Medieval
576	D	Layer (silty-clay)	T6	Medieval
577	D	?Trample (clay-silt)	T6	Medieval
578	D	Layer (clay-silt)	T6	Medieval
579	D	Layer (clay-silt)	T6	Medieval
580	D	Layer (chalk)	T6	Medieval
581	D	Augured deposit: clay-silt	T6	Medieval
582	D	Augured deposit: sandy-silt	T6	Medieval
583	D	Augured deposit: clay-silt	T6	Medieval
584	D	Augured deposit: silt	T6	Medieval
585	D	Augured deposit: silt	T6	Medieval
586	D	Augured deposit: silty-clay	T6	Medieval
587	D	Augured deposit: silt	T6	Medieval
588	D	Augured deposit: silt	T6	Medieval

Context	Type	Description	SSD	Period
589	u/s	General unstratified finds	T1-6	-
590		unassigned		
591		unassigned		
592		unassigned		
593		unassigned		
594		unassigned		
595		unassigned		
596		unassigned		
597		unassigned		
598		unassigned		
599		unassigned		
600		unassigned		
601	RF	Finds recovered during Window Sample Phase	WS	
602	RF	Finds recovered during Window Sample Phase	WS	
603	RF	Finds recovered during Window Sample Phase	WS	
604	RF	Finds recovered during Window Sample Phase	WS	
605	RF	Finds recovered during Window Sample Phase	WS	
606	RF	Finds recovered during Window Sample Phase	WS	

Appendix 1b: OASIS feature summary table

Period	Feature type	Quantity
Unknown		
Late Saxon (851 to 1065AD)	Quarry	1
	Timber Structure (?walkway)	1
	Pit	4
	Post-hole	2
Medieval (1066 to 1539AD)	Pit	34
	Wall	4
	Soak-away	2
	Conduit	1
Post-medieval (1540 to 1900AD)	Pit	2
Modern (1900 to 2050 AD)	Basement	1
	Cellar	1
	Brewery site	1
World War One (1914-1918)		

World War Two (1939-1945)		
Cold War (1945-1992)		

Appendix 2a: Bulk Finds Catalogue

Context	Material	Quantity	Weight (kg)
5	Pottery	1	0.008
10	Ceramic Building Material	4	1.066
10	Stone	1	0.763
16	Pottery	12	0.138
16	Ceramic Building Material	4	0.148
16	Metal Working Debris	1	0.014
16	Flint - worked	1	-
16	Animal bone	-	2.417
16	Shell – oyster/ cockle/ mussel	-	0.041
18	Pottery	4	0.022
18	Ceramic Building Material	9	1.784
18	Stone	1	0.029
18	Animal bone	-	1.464
18	Shell - oyster	-	0.015
28	Pottery	1	0.080
29	Pottery	2	0.020
35	Pottery	1	0.004
35	Animal bone	-	0.016
35	Shell - oyster	-	0.026
43	Ceramic Building Material	4	0.326
46	Pottery	1	0.004
46	Animal bone	-	0.011
46	Shell – oyster/ whelk	-	0.012
51	Animal bone	-	0.001
51	Shell - oyster	-	0.019
52	Pottery	1	0.006
53	Pottery	1	0.004
54	Pottery	1	0.001
54	Animal bone	-	0.019
54	Shell - oyster	-	0.004

Context	Material	Quantity	Weight (kg)
64	Pottery	3	0.022
65	Pottery	15	0.124
65	Ceramic Building Material	1	0.012
65	Metal Working Debris	1	0.108
65	Animal bone	-	0.211
65	Shell - oyster	-	0.025
67	Pottery	1	0.024
67	Animal bone	-	0.006
68	Pottery	1	0.004
69	Pottery	3	0.008
69	Animal bone	-	0.029
69	Shell - oyster	-	0.027
70	Pottery	1	0.008
73	Pottery	32	0.354
73	Fired clay	6	0.277
73	Metal Working Debris	4	0.036
73	Flint - burnt	7	0.339
73	Animal bone	-	0.186
74	Pottery	10	0.084
74	Fired clay	4	0.081
74	Metal Working Debris	1	0.037
74	Flint - burnt	1	0.045
74	Animal bone	-	0.145
74	Shell - oyster	-	0.011
75	Pottery	174	1.412
75	Mortar	1	0.022
75	Fired clay	20	0.61
75	Metal Working Debris	44	0.762
75	Flint - burnt	10	0.199
75	Animal bone	-	0.667
75	Shell - oyster	-	0.014
77	Pottery	25	0.184
77	Metal Working Debris	1	0.012
77	Flint - worked	1	-
77	Animal bone	-	0.113
77	Shell - oyster	-	0.03
89	Pottery	12	0.160
89	Ceramic Building Material	1	0.084
92	Pottery	4	0.046
92	Fired clay	1	0.027
92	Animal bone	-	0.028
93	Ceramic Building Material	1	0.874
95	Pottery	1	0.004
95	Ceramic Building Material	6	0.364

Context	Material	Quantity	Weight (kg)
95	Iron Nail	2	-
99	Pottery	55	1.526
99	Ceramic Building Material	44	4.162
99	Fired clay	1	0.019
99	Flint - worked	1	-
99	Animal bone	-	6.22
99	Shell – oyster/ cockle	-	0.14
101	Ceramic Building Material	2	0.232
108	Fired clay	4	0.059
110	Pottery	6	0.035
110	Fired clay	2	0.078
110	Animal bone	-	0.005
112	Pottery	26	0.240
112	Fired clay	2	0.237
112	Metal Working Debris	6	0.137
112	Flint - burnt	1	0.006
112	Animal bone	-	0.113
112	Shell - oyster	-	0.012
116	Ceramic Building Material	2	0.400
116	Animal bone	-	0.021
118	Ceramic Building Material	5	0.934
118	Mortar	1	0.053
118	Shell - oyster	-	0.01
119	Ceramic Building Material	1	0.050
123	Pottery	4	0.084
123	Ceramic Building Material	1	0.130
123	Animal bone	-	0.179
124	Ceramic Building Material	3	0.290
124	Animal bone	-	0.114
126	Ceramic Building Material	2	1.260
126	Animal bone	-	0.162
129	Ceramic Building Material	1	0.366
132	Pottery	2	0.012
132	Ceramic Building Material	4	0.248
132	Shell - oyster	-	0.011
140	Ceramic Building Material	6	1.504
143	Ceramic Building Material	1	2.810
154	Pottery	1	0.006
157	Ceramic Building Material	2	0.114
157	Animal bone	-	0.039
171	Pottery	4	0.014
171	Animal bone	-	0.05
172	Pottery	1	0.008
172	Ceramic Building Material	1	0.050

Context	Material	Quantity	Weight (kg)
172	Flint - burnt	4	0.171
172	Shell - oyster	-	0.006
178	Pottery	2	0.034
178	Ceramic Building Material	5	0.260
178	Mortar	2	0.244
178	Animal bone	-	0.137
183	Ceramic Building Material	1	1.922
184	Ceramic Building Material	3	0.652
197	Pottery	6	0.306
197	Animal bone	-	0.023
198	Clay Pipe	4	0.008
199	Pottery	4	0.014
200	Pottery	8	0.054
200	Flint - worked	1	-
205	Ceramic Building Material	1	0.040
213	Pottery	2	0.008
215	Fired clay	3	0.086
216	Ceramic Building Material	1	0.042
217	Ceramic Building Material	2	0.030
218	Ceramic Building Material	2	0.052
227	Pottery	1	0.008
227	Ceramic Building Material	2	0.092
227	Animal bone	-	0.039
227	Shell - oyster	-	0.001
228	Pottery	1	0.004
228	Animal bone	-	0.074
229	Pottery	4	0.030
230	Pottery	37	0.311
230	Ceramic Building Material	1	0.016
230	Metal Working Debris	1	0.02
230	Flint - worked	3	-
230	Flint - burnt	13	0.539
230	Animal bone	-	1.311
230	Shell - oyster	-	0.049
231	Ceramic Building Material	3	0.838
234	Pottery	3	0.054
234	Shell - oyster	-	0.012
237	Pottery	3	0.028
237	Ceramic Building Material	1	0.074
237	Metal Working Debris	1	0.016
237	Animal bone	-	0.049
240	Pottery	1	0.010
240	Fired clay	1	0.007
241	Stone	1	1.951

Context	Material	Quantity	Weight (kg)
246	Pottery	2	0.016
248	Pottery	4	0.020
248	Flint - burnt	1	0.016
248	Animal bone	-	0.093
266	Pottery	2	0.028
266	Ceramic Building Material	3	0.046
273	Pottery	2	0.054
273	Animal bone	-	0.026
274	Pottery	1	0.006
274	Metal Working Debris	1	0.018
277	Fired clay	1	0.013
278	Pottery	6	0.086
278	Stone	1	0.118
278	Animal bone	-	0.026
278	Shell - oyster	-	0.011
280	Pottery	8	0.042
280	Metal Working Debris	8	0.224
280	Flint - worked	1	-
280	Animal bone	-	0.098
282	Pottery	43	0.784
282	Fired clay	1	0.019
282	Metal Working Debris	5	0.113
282	Flint - worked	1	-
282	Animal bone	-	0.041
284	Pottery	1	0.016
287	Animal bone	-	0.071
288	Pottery	1	0.008
303	Stone	1	5
305	Flint - worked	2	-
306	Flint - worked	1	-
320	Pottery	9	0.098
320	Animal bone	-	0.199
320	Shell - oyster	-	0.139
328	Ceramic Building Material	3	0.442
328	Animal bone	-	0.022
340	Flint - burnt	3	0.004
340	Animal bone		0.009
344	Pottery	1	0.036
344	Ceramic Building Material	13	6.398
344	Iron Nail	2	-
344	Animal bone	-	0.03
347	Pottery	5	0.028
347	Animal bone	-	0.017
367	Pottery	1	0.006

Context	Material	Quantity	Weight (kg)
367	Animal bone	-	0.008
369	Pottery	1	0.002
369	Animal bone	-	0.014
369	Shell - oyster	-	0.024
373	Pottery	1	0.010
374	Animal bone	-	0.009
379	Pottery	17	0.762
379	Ceramic Building Material	2	0.044
381	Animal bone	-	0.027
381	Shell - oyster	-	0.116
390	Pottery	10	0.122
390	Animal bone	-	0.116
396	Pottery	8	0.070
396	Shell - oyster	-	0.027
398	Pottery	6	0.036
398	Metal Working Debris	1	0.033
399	Pottery	15	0.212
399	Flint - burnt	1	0.016
399	Animal bone	-	0.297
399	Shell - oyster	-	0.04
406	Ceramic Building Material	6	0.792
406	Mortar	3	2.14
406	Stone	4	2.972
407	Pottery	1	0.010
421	Pottery	1	0.060
422	Ceramic Building Material	1	0.012
431	Pottery	2	0.060
431	Flint - worked	1	-
431	Animal bone	-	0.038
479	Animal bone	-	0.068
486	Ceramic Building Material	2	0.612
486	Mortar	1	0.658
486	Stone	1	1.783
488	Pottery	1	0.012
488	Ceramic Building Material	2	0.086
489	Pottery	1	0.006
489	Fired clay	3	0.111
489	Animal bone	-	0.018
490	Pottery	4	0.062
493	Ceramic Building Material	11	9.258
497	Pottery	1	0.006
497	Ceramic Building Material	2	0.444
497	Animal bone	-	0.035
498	Mortar	2	0.041

Context	Material	Quantity	Weight (kg)
500	Pottery	1	0.004
520	Pottery	5	0.100
520	Flint - burnt	1	0.095
520	Animal bone	-	0.358
528	Pottery	4	0.160
528	Animal bone	-	0.17
530	Pottery	25	0.474
530	Metal Working Debris	3	0.247
530	Flint - burnt	1	0.027
530	Animal bone	-	1.041
530	Shell - oyster	-	0.078
535	Pottery	2	0.006
535	Animal bone	-	0.015
536	Animal bone	-	0.038
538	Animal bone	-	0.16
570	Pottery	3	0.012
570	Ceramic Building Material	2	0.472
570	Iron Nail	1	-
570	Animal bone	-	0.057
574	Pottery	1	0.002
579	Pottery	5	0.078
579	Metal Working Debris	1	0.128
579	Animal bone	-	0.097
580	Pottery	1	0.014
580	Animal bone	-	0.026
585	Animal bone	-	0.005
586	Animal bone	-	0.002
587	Pottery	1	0.004
589	Pottery	2	0.008
589	Ceramic Building Material	2	0.172
589	Animal bone	-	0.44
589	Shell – oyster/ cockle	-	0.009

Appendix 2b: NHER finds summary table

Period	Material	Quantity
Neolithic (4000 to 2201BC)		
	Flint	2
Roman (42 to 409AD)		
	Ceramic Building Material	2
Late Saxon (851 to 1065AD)		
	Pottery	358
	Metal Working Debris	66
	Fired Clay	37
	Animal Bone	201
	Shell	9
Medieval (1066 to 1539AD)		
	Leather	39
	Pottery	226
	Metal Working Debris	12
	Fired Clay	12
	Animal Bone	728
	Shell	81
	Ceramic Building Material	124
	Worked Stone	5
	Mortar	11
Post-medieval (1540 to 1900AD)		
	Pottery	95
	Shell	1
	Ceramic Building Material	51
	Clay Tobacco Pipe	4
Modern (1900 to 2050 AD)		
	Sanitary ware	1
	Ceramic Building Material	1

Appendix 3: Pottery Catalogue

Context	Fabric	No	Wt/kg	Spotdate
5	ANDN	1	0.008	12th-13th c.
16	GRIL	6	0.072	14th-15th c.?
16	GSW3	1	0.006	L.14th-E.16th c.
16	LMT	5	0.060	15th-L.16th c.
18	GRIL	1	0.006	14th-15th c.?
18	LMT	1	0.006	15th-L.16th c.
18	UNID	2	0.010	15th-16th c.
28	EMW	1	0.080	12th-13th c.?
29	GRIM	2	0.020	L.12th-14th c.
35	EMW	1	0.004	11th-12th c.
46	LMU	1	0.004	11th-14th c.
52	LMU	1	0.006	11th-14th c.
53	LMU	1	0.004	11th-14th c.
54	EMW	1	0.001	11th-12th c.
64	THET	2	0.006	10th-11th c.
64	THETG	1	0.016	10th-11th c.
65	STNE	2	0.012	850-1150

Context	Fabric	No	Wt/kg	Spotdate
65	THET	10	0.084	10th-11th c.
65	THETG	3	0.028	10th-11th c.
67	GRIM	1	0.024	L.12th-14th c.
68	LMU	1	0.004	13th c.?
69	LMU	1	0.006	11th-14th c.
69	THET	2	0.002	10th-11th c.
70	LMU	1	0.008	11th-14th c.
73	EMSW	2	0.008	11th-12th c.
73	EMWSS	1	0.010	11th-12th c.
73	LMU	1	0.004	11th-12th c.?
73	STNE	2	0.014	11th c.+
73	THET	23	0.202	10th-11th c.
73	THETG	3	0.116	10th-11th c.
74	EMSW	1	0.010	11th-12th c.
74	EMW	1	0.010	11th-12th c.
74	THET	8	0.064	10th-11th c.
75	EMSW	4	0.034	11th-12th c.
75	EMW	2	0.008	11th-12th c.
75	LMU	3	0.012	11th-14th c.
75	STAMA	1	0.006	M.10th-L.11th c.
75	STNE	6	0.054	850-1150
75	SXNO	1	0.010	850-1150
75	THET	150	1.208	10th-11th c.
75	THETG	5	0.064	10th-11th c.
75	YAR	2	0.016	11th-12th c.
77	EMW	2	0.008	11th-12th c.
77	GRIM	2	0.010	L.12th-14th c.
77	LMU	12	0.090	11th-14th c.
77	LMU	1	0.004	11th-12th c.
77	LMU	2	0.036	13th c.?
77	LMU	1	0.010	13th-14th c.
77	THET	3	0.010	10th-11th c.
77	YAR	2	0.016	11th-12th c.
89	LMU	12	0.160	11th-14th c.
92	EMW	1	0.004	11th-12th c.
92	THET	3	0.042	10th-11th c.
95	GRCW	1	0.004	11th-M.13th c.
99	DUTR	9	0.190	15th-17th c.
99	GRIL	1	0.024	14th-15th c.?
99	GSW2	1	0.044	L.14th-15th c.
99	GSW3	7	0.166	L.14th-E.16th c.
99	LEPM	2	0.010	16th c.
99	LMT	30	0.984	15th-L.16th c.
99	LMTE	1	0.026	15th-16th c.
99	SWWT	1	0.002	15th-16th c.
99	THET	2	0.020	10th-11th c.

Context	Fabric	No	Wt/kg	Spotdate
99	THETG	1	0.060	10th-11th c.
110	EMW	1	0.001	11th-12th c.
110	LMU	1	0.008	11th-14th c.
110	THET	1	0.006	10th-11th c.
110	UPG	1	0.006	L.12th-14th c.
110	YAR	2	0.014	11th-12th c.
112	PING	1	0.018	10th-13th c.
112	THET	24	0.216	10th-11th c.
112	YAR	1	0.006	11th-12th c.
123	GSW3	1	0.006	L.14th-E.16th c.
123	LMT	3	0.078	15th-L.16th c.
132	DUTR	2	0.012	16th-17th c.?
154	GRIM	1	0.006	L.12th-14th c.
171	EMW	4	0.014	11th-12th c.
172	THET	1	0.008	10th-11th c.
178	EMW	2	0.034	11th-12th c.
197	GRIM	4	0.292	L.12th-14th c.
197	LMU	1	0.008	11th-14th c.
197	YAR	1	0.006	11th-12th c.
199	GRIM	1	0.002	L.12th-14th c.
199	LMU	3	0.012	11th-14th c.
200	EMSW	1	0.004	11th-12th c.
200	GRCW	1	0.006	11th-M.13th c.
200	GRIM	2	0.018	L.12th-14th c.
200	LMU	4	0.026	11th-14th c.
213	LMU	1	0.004	11th-14th c.
213	THET	1	0.004	10th-11th c.
227	GRIM	1	0.008	L.12th-14th c.
228	UNID	1	0.004	
229	LMU	4	0.030	11th-12th c.
230	AARD	1	0.004	L.12th-14th c.
230	EMW	6	0.024	11th-12th c.
230	GRIM	2	0.026	L.12th-14th c.
230	LMU	16	0.152	11th-14th c.
230	STAMB	1	0.001	M.11th-M.13th c.
230	THET	9	0.072	10th-11th c.
230	YAR	2	0.032	11th-12th c.
234	LMU	2	0.044	11th-14th c.
234	THET	1	0.010	10th-11th c.
237	LMU	1	0.012	11th-14th c.
237	LMU	1	0.006	13th c.?
237	THET	1	0.010	10th-11th c.
240	EMW	1	0.010	11th-12th c.
246	THET	2	0.016	10th-11th c.
248	LMU	3	0.016	11th-14th c.
248	THET	1	0.004	10th-11th c.

Context	Fabric	No	Wt/kg	Spotdate
266	ANDN	1	0.002	12th-13th c.
266	LMT	1	0.026	15th-L.16th c.
273	THET	1	0.008	10th-11th c.
273	THETG	1	0.046	10th-11th c.
274	LMU	1	0.006	11th-14th c.
278	LMU	4	0.064	11th-14th c.
278	THET	2	0.022	10th-11th c.
280	THET	8	0.042	10th-11th c.
282	THET	18	0.166	10th-11th c.
282	THETG	25	0.618	10th-11th c.
284	THET	1	0.016	10th-11th c.
288	THET	1	0.008	10th-11th c.
320	GRCW	2	0.032	11th-M.13th c.
320	GRIM	1	0.006	L.12th-14th c.
320	LMU	3	0.024	11th-14th c.
320	LMU	1	0.006	12th-13th c.
320	LMU	1	0.008	13th-14th c.
320	THET	1	0.022	10th-11th c.
344	LMT	1	0.036	15th-L.16th c.
347	GRIM	1	0.008	L.12th-14th c.
347	LMU	3	0.018	11th-14th c.
347	THET	1	0.002	10th-11th c.
367	DUTR	1	0.006	15th-16th c.
369	STAMA	1	0.002	M.10th-L.11th c.
373	LMU	1	0.010	11th-14th c.
379	DUTR	1	0.006	15th-17th c.
379	GRIL	1	0.002	14th-15th c.?
379	GRIM	1	0.008	L.12th-14th c.
379	GSW3	5	0.442	L.14th-E.16th c.
379	LMT	9	0.304	15th-L.16th c.
390	GRIM	8	0.110	L.12th-14th c.
390	LMU	2	0.012	11th-14th c.
396	GRIM	4	0.022	L.12th-14th c.
396	LMU	4	0.048	11th-14th c.
398	GRIM	4	0.026	L.12th-14th c.
398	LMU	1	0.002	11th-14th c.
398	THET	1	0.008	10th-11th c.
399	GRIM	8	0.098	L.12th-14th c.
399	LMU	6	0.108	11th-14th c.
399	LMU	1	0.006	13th-14th c.
407	LMT	1	0.010	15th-L.16th c.
421	LMU	1	0.060	11th-14th c.
431	LMU	2	0.060	11th-14th c.
488	LMT	1	0.012	15th-L.16th c.
489	GRIM	1	0.006	L.12th-14th c.
490	GRIM	1	0.014	L.12th-14th c.

Context	Fabric	No	Wt/kg	Spotdate
490	LMU	2	0.030	11th-14th c.
490	THET	1	0.018	10th-11th c.
497	GRIM	1	0.006	L.12th-14th c.
500	GRIM	1	0.004	L.12th-14th c.
520	EMW	4	0.090	11th-12th c.
520	THET	1	0.010	10th-11th c.
528	LMU	2	0.078	11th-14th c.
528	THET	1	0.076	10th-11th c.
528	UPG	1	0.006	L.12th-14th c.
530	EMW	4	0.052	11th-12th c.
530	GRCW	1	0.014	11th-M.13th c.
530	PING	3	0.084	10th-13th c.
530	THET	15	0.272	10th-11th c.
530	YAR	2	0.052	11th-12th c.
535	THET	1	0.004	10th-11th c.
535	UNID	1	0.002	
570	GSW1	1	0.006	E.14th-17th c.
570	LMU	1	0.002	11th-14th c.
570	THET	1	0.004	10th-11th c.
574	GRIM	1	0.002	L.12th-14th c.
579	GRIM	3	0.052	L.12th-14th c.
579	LMU	2	0.026	11th-14th c.
580	GRIM	1	0.014	L.12th-14th c.
587	ANDN	1	0.004	12th-13th c.
589	ANDN	1	0.004	12th-13th c.
589	GRIL	1	0.004	14th-15th c.?

Appendix 4: Ceramic Building Material

context	fabric	form	no	wt/kg	W	T	peg	mortar	glaze	abr	comments	date
10	est	EB7/ 10	1	0.402		55		white ms all over			strawed base	14-15?
10	est	EB7	1	0.364		52		white ms all over			strawed base	14-15?
10	est	EB1	1	0.224		63		white ms all over			sanded base	L.13-14
10	est	EB	1	0.076							yellow	13-15
16	est	EB	3	0.100								13-15
16	ms	RT	1	0.048					B			med
18	est	EB	6	0.274						+		13-15
18	est	EB2	1	1.464	112	50		buff cs on stretcher & breaks			sanded base	L.13-14
18	ms	RT	1	0.010						+		med?
18	fsfe	RT	1	0.036					spot C			med?

context	fabric	form	no	wt/kg	W	T	peg	mortar	glaze	abr	comments	date
43	est	EB	4	0.326				1 buff cs on breaks		+		13-15
65	est	EB	1	0.012							overfired frag	13-15
89	msc	RID	1	0.084						+		med
93	est	EB4	1	0.874	125	53		buff cs on sides			sanded base, yellow	L.13-14
95	est	EB	1	0.048						+		13-15
95	msfe	RT	1	0.024								pmed
95	msf	LB	1	0.176							base frag	pmed
95	msgfe	FT	1	0.094		42					quarry	pmed
95	fsgm	UN	2	0.022							flakes, LB/RT/FT?	pmed?
99	wfs	RT	1	0.018								pmed
99	fsgm	VAL	1	0.392								pmed
99	msfe	RT	5	0.240						+		pmed
99	msg	RT	5	0.254			1 x R					pmed
99	ms	RT	1	0.108				thin all over				med?
99	ms	RT	1	0.104				thick ms				pmed
99	fsg	RT	1	0.034							flake	pmed
99	msf	RT	6	0.230								pmed
99	fsg	FFT	1	0.068		28			G			14-15
99	cs	RT	2	0.178								med?
99	est	EB6/ 7	1	0.648	122	50					strawed base	14-15?
99	fsg	FFT	1	0.220		34			DG			14-15
99	est	EB2/ 3	1	0.442		46					sanded base, overfired	L.13-14
99	est	EB	11	0.460						+		13-15
99	est	EB3	1	0.176		38		thin all over			sanded base	L.13-14
99	est	EB2?	1	0.180		51					sanded base	L.13-14
99	est	EB7/ 10	1	0.134		55				+	strawed base	14-15?
99	ms	RT	1	0.030								med?
99	est	EB2	1	0.052		49					sanded base	L.13-14
99	msgfe	FT	1	0.194							quarry	pmed
101	est	EB	1	0.110							surface worn?	13-15
101	est	EB	1	0.122							black deposit on base and sides	13-15
116	est	EB	1	0.174		52		ms			yellow, could be a pmed wsg	14-15?
116	est	EB	1	0.226							coarse, overfired	13-15
118	fsg	FT	2	0.710		39					upper surfaces burnt & blackened	pmed
118	fsgm	FT?	1	0.048		14					edges KT but not right-angle	pmed

context	fabric	form	no	wt/kg	W	T	peg	mortar	glaze	abr	comments	date
118	msfe	LB	1	0.124		55				+	surfaces part vit	15-16
118	msfe	LB	1	0.052						+		lmed/ pmed
119	msf	RT	1	0.050			1 x R					pmed
123	fsfe	LB	1	0.130							surfaces heavily vit to green glass-like crazed	lmed?
124	msf	RT	1	0.060								pmed?
124	msg	RT	1	0.116			1 x R	ms on breaks				pmed
124	est	EB	1	0.114				ms on breaks		+		13-15
126	est	EB	1	0.534	99	61					strawed base, v overfired	14-15?
126	est	EB3	1	0.726	101+	45		ms on base			sanded base	L.13-14
129	est	EB	1	0.366		58		ms buff				14-15?
132	ms	RT	1	0.024					B			med
132	fsgfe	RT	1	0.088			1 x R					pmed
132	msgfe	RT	2	0.136								pmed
140	est	EB4	4	0.956	115	54					=1 brick, sanded base	L.13-14
140	est	EB4	2	0.548	110	55					=1 brick, sanded base	L.13-14
143	refw	SW	1	2.810					white		toilet, brown TP int 'THE CENTAUR', ext AFTER FLUSH CHAMBER/ TWYFORDS LTD, HANLEY, Royal crest	1896+
157	est	EB	1	0.092		50				+	yellow	14-15?
157	ms	RT	1	0.022							overfired, vit surface	med
172	est	EB	1	0.050							strawed base	13-15
178	est	EB	1	0.154							sanded base	13-14
178	est	EB	2	0.064							strawed base	13-15
178	msc	FLT	1	0.018							reduced, burnt?	Rom
178	msf	RID	1	0.024		12			G/B			med
183	msg	LB	1	1.922	108	77		cs buff			reduced, black vit surfaces, rect frog, engineering/fire brick?	19+
184	est	EB2	1	0.600	106	47					sanded base	L.13-14
184	est	EB	2	0.052							=1 brick	13-15
205	ms	RT	1	0.040					B			med
216	est	EB	1	0.042								13-15
217	est	EB	2	0.030						+		13-15

context	fabric	form	no	wt/kg	W	T	peg	mortar	glaze	abr	comments	date
218	est	EB	1	0.010				thick cs buff				13-15
218	ms	RT	1	0.042					B			med
219	fsg	FT	1	1.427		45					sooted surface	pmed
219	fsg	FT	1	0.694		44					?sooted surface	pmed
219	fsg	FT	1	0.693		33					worn	pmed
219	fsg	FT	1	0.539		35					worn	pmed
219	fsg	FT	1	0.545		33					worn	pmed
219	fsg	FT	1	1.026		36					fingermarks in base	pmed
219	fsg	FT	1	0.766		32					sooted surface & edges	pmed
219	fsg	FT	1	0.305		24					worn	pmed
219	fsg	FT	1	0.901		34					worn	pmed
219	fsg	FT	1	0.118		26					cut diagonally	pmed
219	fsg	FT	1	0.248		21					worn	pmed
219	fsg	FT	1	0.237		28						pmed
219	fsg	FT	1	0.333		21					yellow	pmed
227	ms	RT	1	0.030								med
227	est	EB	1	0.062						+		13-15
230	comp	LB	1	0.016							compressed grog? Not shale	19th c.+
231	ms	UN	1	0.538		30		ms buff all over			orange fabric, could be RBT?	
231	ms	RT	2	0.300				ms buff all over				med
237	ms	RT	1	0.074								med
266	est	EB	3	0.046						+	=2 bricks	13-15
328	ms	RT	1	0.096			1 x R					med?
328	est	EB6/7	1	0.236		50		ms buff			yellow with Fe, strawed base	14-15?
328	est	EB	1	0.110						+	sanded base	13-14
344	fsg	RT	1	0.244					B/G		KT edge, poss RID but glaze is on one half only	med
344	est	EB8	1	0.770	112	45					strawed base	L.14-15
344	est	EB6/8	1	0.200		45					strawed base	14-15?
344	ms	RT	1	0.094				thin	B		occ Fe	med
344	msf	RT	1	0.154								med
344	est	EB7	1	0.988	124	52					strawed base	14-15?
344	fsfe	RID?	2	0.096				ms	G		KT edge	med
344	ms	RT	1	0.076				thin			overfired	med
344	est	EB8	1	1.116	110	40					overfired, warped, strawed base	L.14-15
344	est	EB	1	0.552	103	30					overfired, strawed base	14-15?
344	est	EB4	1	2.040	125	60					sanded base	L.13-14

Appendix 5: Mortar Catalogue

context	fabric	colour	type	no	wt/kg	description
10	mscf	cream				sample <1>, small lumps in loose aggregate
75	cscf	grey		1	0.021	amorphous lump, contains some flint
118	msc	cream	bedding?	1	0.050	1 flat surface, 25mm thick, abundant sand, burnt at one end
139	?	buff?				sample <22>, loose aggregate only
139	mscf	grey-cream				sample <7>, small lumps in loose aggregate, occasional red ?tile inclusions, same as <8>
139	mscf	grey-cream				sample <8>, small lumps in loose aggregate, occasional red ?tile inclusions, same as <6>
140	mscf	grey-cream				sample <6>, small lumps in loose aggregate, occasional red ?tile inclusions, same as <7>-<8>
140	mscf	cream				sample <23>, small lumps in loose aggregate
178	cscf	white	wall	1	0.060	thick fragment, white limewash/plaster with brushmarks on one surface
178	mscf	cream	bedding?	1	0.165	abr, 1 surface poss flat? 22-35mm thick
231	cscf	buff				sample <4>, small lumps in loose aggregate
344	cscf	buff	wall?	1	0.649	part of sample <16> 50+mm thick, 1 flat and 1 concave face, probably flint impression? Rest of sample consists of loose aggregate.
406	mscf	buff		2	0.205	two lumps, one with a small area of flat surface
406	mscf	cream-buff		1	1.718	large lump with three smoothed surfaces forming a rough semi-hexagon in section. 1 smooth face complete width - 77mm; rougher faces both 55+mm wide. Contains large flint.
486	cscf	white	wall?	1	0.576	amorphous lump, 1 face roughly smoothed, impression of spherical object (?flint) in opposite side
498	mscf	cream		2	0.037	small amorphous lumps
572	mscf	cream				sample <24>, small lumps in loose aggregate

Appendix 6: Metal Working Debris Catalogue

Context	Trench	Context Type	Period	Quantity	Weight (kg)	Type
16	5	Fill of Pit [13]	Late Med.	1	0.014	Tapping slag
65	1	Fill of Pit [62]	Saxo-Norman	1	0.108	Tapping slag
73	1	Quarry infill	Saxo-Norman	4	0.036	Tapping slag
74	1	Quarry infill	Saxo-Norman	1	0.037	Tapping slag
75	1	Quarry infill (charcoal rich)	Saxo-Norman	44	0.762	Tapping slag
77	1	Fill of Pit [76]	Saxo-Norman	1	0.012	Tapping slag
112	1	Fill of Pit [111]	Medieval	6	0.137	Tapping slag
230	5	Make-up	?Early med.	1	0.020	Tapping slag
237	5	Clay dump of [212]	Medieval	1	0.016	Tapping slag
274	5	Fill of Pit [247]	Medieval	1	0.018	Tapping slag
280	1	Quarry infill (chalk waste)	Saxo-Norman	8	0.224	Tapping slag
282	1	Fill of Post-slot [281]	Saxo-Norman	5	0.113	Tapping slag
379	6	Unstratified	-	1	0.057	Copper alloy casting debris
398	3	Layer	Medieval	1	0.033	Tapping slag
530	3	Layer	Saxo-Norman	3	0.247	Hearth base
579	6	Make-up	Medieval	1	0.128	Hearth base
Totals				80	1.962	

Appendix 7: Fired Clay Catalogue

Context	Trench	Quantity	Context Type	Context Period	Weight (kg)	Comment
73	1	6	Quarry Infill	Saxo-Norman	0.277	Five pieces 0.252kg, in sandy fabric with numerous rounded chalk inclusions. One large fragment with remains of single withy impression and opposing flat surface. One piece 0.025kg in sandy fabric
74	1	4	Quarry Infill	Saxo-Norman	0.081	Two rounded pieces 0.020kg in chalky fabric. Two in sandy fabric one with two opposing surfaces.
75	1	20	Quarry Infill	Saxo-Norman	0.610	Nine pieces 0.449kg in chalk fabric including one large piece with one flat surface. Eleven pieces in sandy fabric 0.161kg
92	1	1	Quarry Infill	Saxo-Norman	0.027	Chalk fabric one surface
99	6	1	Make-up	Late-medieval	0.019	Chalk fabric no surfaces
108	1	4	Quarry Infill	Saxo-Norman	0.059	Irregularly shaped chalky pieces
110	1	2	PH/Pit	Medieval	0.078	Chalky no surfaces
112	1	2	Pit	Medieval	0.237	One chalky piece with one flat surface burnt 0.094kg. one dense sandy piece with withy impression also burnt 0.143kg.
215	5	3	Pit	Medieval	0.086	Irregular sandy burnt
240	5	1	Pit	Medieval	0.007	Sandy one flat surface
277	5	1	Augured deposit	?Early Medieval	0.013	Chalky no surviving surfaces.
282	1	1	Post-slot	Saxo-Norman	0.019	Sandy one flat surface
489	6	3	Make-up (peat-ash)	Medieval	0.111	All heavily burnt in sandy fabric. One large piece with possible withy impression
Total		49			1.624	

Appendix 8: Flint Catalogue

Context	Flint Type	Quantity
16	scraper	1
73	burnt fragment	7
74	struck fragment	1
75	burnt fragment	9
75	non-struck fragment	0
77	flake	1
99	building fragment	1
112	burnt fragment	1
172	burnt fragment	4
200	retouched blade	1
230	burnt fragment	13
230	flake	3
248	burnt fragment	1
280	retouched blade	1
282	flake	1
303	non-struck fragment	1
305	flake	2
306	flake	1
340	burnt fragment	3
399	burnt fragment	1
406	building fragment	3
431	flake	1
520	burnt fragment	1
530	burnt fragment	1

Appendix 9: Faunal Remains

Context	Total Qty	Wt (kg)	Species	Species Quantity	Measure	Count	Age	Butchering
16	231	2.417	cattle	25	2	5	range	
16			Sheep /goat	13	4	7	range	butchered
16			pig	12	3	5	Juvenile	butchered
16			small mammal	4		2	Adult	butchered
16			bird	23	16	16	Range	butchered
16			fish	44		5		?
16			mammal	110				butchered
18	33	1.464	cattle	10	2	3	Adult	butchered
18			Sheep /goat	1	1	1	Adult	butchered
18			mammal	22				butchered
35	2	0.016	Sheep goat	1			Adult	butchered
35			mammal	1				
46	1	0.011	mammal	1				
51	1	0.001	mammal	1				
54	17	0.019	Sheep	1			Juvenile	

Context	Total Qty	Wt (kg)	Species	Species Quantity	Measure	Count	Age	Butchering
			goat					
54			mammal	8				
54			fish	8				
65	16	0.211	cattle	2		1	Adult	butchered
65			pig	1		1	Sub adult	butchered
65			bird	1	1	1	Adult	?cut
65			fish	1			Adult	?butchered
65			mammal	11				butchered
67	1	0.006	mammal	1				
69	3	0.029	Bird	1		1	Adult	
69			mammal	2				
73	13	0.186	cattle	2	1	1.5	Adult	butchered
73			bird	3	2	2	Adult	butchered
73			mammal	8				butchered
74	10	0.145	cattle	2		1.5	Adult	knife cuts
74			mammal	8				butchered
75	70	0.667	cattle	15		5	Range	butchered
75			Sheep /goat	5	1	2	Adult	butchered
75			pig	3	1	1	Range	
75			bird	2	1	1	Adult	
75			mammal	45				
77	10	0.113	pig	3		1	Juvenile	butchered
77			bird	1	1	1	Adult	?butchered
77			mammal	6				butchered
92	3	0.028	cattle	1		0.5	Adult	
92			mammal	2				
99	201	6.22	cattle	48	13	22	Range	butchered
99			Sheep /goat	15	6	8	Range	butchered
99			pig	14	4	5	Juvenile	butchered
99			deer	1		1	Adult	?butchered
99			small mammal	14	2	3	Adult	?butchered
99			bird	25	14	14	Range	butchered
99			cetacean	1			Juvenile	?butchered
99			mammal	127				
99			fish	5				
110	2	0.005	mammal	2				
112	9	0.113	cattle	2		0.5	Adult	butchered
112			Sheep /goat	2	1	1	Adult	butchered
112			mammal	5				butchered
116	1	0.021	mammal	1				
123	2	0.179	cattle	2	1	1	Adult	butchered
124	2	0.114	cattle	1	1	1	Adult	butchered
124			mammal	1				
126	1	0.162	cattle	1	1	1	Adult	chopped
157	3	0.039	cattle	1		1	Adult	

Context	Total Qty	Wt (kg)	Species	Species Quantity	Measure	Count	Age	Butchering
157			mammal	2				
171	9	0.05	cattle	1			Juvenile	
171			sheep/goat	1	1	1	Adult	
171			bird - goose	1		1	Adult	worked
171			bird	3	1	1	Adult	
171			mammal	3				
178	22	0.137	cattle	2		1	Juvenile	butchered
178			sheep/goat	8	1	4.5		
178			bird	3	1	2	Adult	butchered
178			mammal	9				
197	2	0.023	sheep/goat	1		0.5	Adult	
197			mammal	1				
227	3	0.039	sheep/goat	1		1	Adult	butchered
227			mammal	2				
228	4	0.074	cattle	1				butchered
228			sheep/goat	1		1	Neo-natal	
228			mammal	2				
230	99	1.311	cattle	21	3	8.5	Range	butchered
230			sheep/goat	4		2	Adult	butchered
230			pig	1		0.5	Juvenile	
230			small mammal	1	1	1	Juvenile	
230			bird	2	1	1	Adult	butchered
230			mammal	70				
237	3	0.049	cattle	1	1	1	Adult	chopped
237			sheep/goat	1		1	Adult	chopped
237			fish	1				
248	2	0.093	cattle	1	1		Adult	chopped
248			sheep/goat	1				butchered
273	1	0.026	mammal	1				
278	2	0.026	sheep/goat	2		1	Adult	chopped
280	9	0.098	deer	3			Adult	none
280			mammal	6				
282	2	0.041	mammal	2				
287	5	0.071	deer	5			?juvenile	none
290			bird	1				butchered
320	4	0.199	cattle	1		1	Adult	
320			sheep/goat	1	1		Adult	
320			mammal	2				
328	1	0.022	sheep/goat	1	1	1	Adult	butchered

Context	Total Qty	Wt (kg)	Species	Species Quantity	Measure	Count	Age	Butchering
			t					
340	2	0.009	mammal	2				
344	1	0.03	cattle	1		0.5		
347	2	0.017	bird	1	1	1	Adult	
347			mammal	1				
367	2	0.008	mammal	2				
369	4	0.014	mammal	4				
374	1	0.009	mammal	1				
381	1	0.027	mammal	1				
390	9	0.116	cattle	5	1	2.5	Range	butchered
390			mammal	3				
399	10	0.297	cattle	5		1	Juvenile	butchered
399			pig	1		1	Juvenile	butchered
399			bird	1		1	Adult	butchered
399			fish	2				
399			mammal	1				
431	3		mammal	3				butchered
479	3	0.068	mammal	1				
479			cattle	1			Juvenile	
479			small mammal	1				
489	1	0.018	pig	1		1	Juvenile	butchered
520	12	0.358	cattle	4	1	2.5	Adult	butchered
520			sheep/goat	3	1	2	Juvenile	butchered
520			bird	2				butchered
520			mammal	3				
528	5	0.17	pig	1		1	Juvenile	butchered
528			deer	1	1	1	Adult	butchered
528			mammal					
530	47	1.041	cattle	7	3	1	Adult	butchered
530			sheep/goat	6	2	2	Sub-adult	butchered
530			pig	3	2	2	Juvenile	butchered
530			bird	3	1	2	Adult	butchered
530			mammal	28				butchered
535	7	0.015	sheep/goat	1	1		Juvenile	
535			mammal	5				
535			fish	1				
536	3	0.038	mammal	3				
538	4	0.16	cattle	3	1	1	Adult	butchered
538			mammal	1				
570	6	0.057	sheep/goat	1		1	Juvenile	butchered
570			bird	1	1	1	Juvenile	
570			mammal	4				
579	3	0.097	mammal	3				
580	1	0.026	cattle	1		0.5	Adult	

Context	Total Qty	Wt (kg)	Species	Species Quantity	Measure	Count	Age	Butchering
585	1	0.005	mammal	1				
586	3	0.002	mammal	3				
589	45	0.44	range				Range	butchered

Appendix 10: Mollusc Catalogue

Context	M/F/Land	Context Quantity	Wt (Kg)	Species	Qty	Comments
16	m	17	0.041	Oyster	13	
	m		-	Cockle	3	
	m		-	Mussel	1	
18	m	3	0.015	Oyster	3	base and top shells
35	m	2	0.026	Oyster	2	
46	m	2	0.012	Oyster	1	
46	m		-	Whelk	1	small
51	m	1	0.019	Oyster	1	
54	m	1	0.004	Whelk	1	
65	m	2	0.025	Oyster	2	base and top shells
69	m	2	0.027	Oyster	2	base and top shells
74	m	1	0.011	Oyster	1	
75	m	3	0.014	Oyster	3	
77	m	4	0.113	Oyster	4	
99	m	10	0.141	Oyster	9	base and top shells
99	m		-	Cockle	1	
112	m	1	0.012	Oyster	1	
118	m	1	0.011	Oyster	1	
132	m	1	0.011	Oyster	1	
172	m	1	0.006	Oyster	1	
227	m	1	0.001	Oyster	1	
230	m	4	0.049	Oyster	4	
234	m	1	0.012	Oyster	1	
320	m	9	0.139	Oyster	9	base and top shells
369	m	3	0.014	Oyster	3	base and top shells
381	m	13	0.116	Oyster	13	base and top shells
396	m	2	0.027	Oyster	2	
399	m	4	0.04	Oyster	4	

530	m	3	0.078	Oyster	3	base and top shells Possibly Burnt
589	m	3	0.009	Oyster	1	
			-	Cockle	2	

Appendix 11: Small Finds Catalogue

SF	Context	Category	Object Name	Object date	Context Date	Material	Quantity
TRENCH 1							
15	112	Unclassified	Strip	Undated	Medieval	Iron	1
Description: Badly corroded strip fragment, with one rounded tapering end. Mineralised wood on one face.							
22	73	Unclassified	Artefact	Saxo-Norman	Saxo-Norman	Bone	1
Description: Cylindrical object with carved expanded pointed tip; broken at opposite expanded and nicked bulbous end; circumferential band towards middle decorated with a central and vertical grooves forming two rows of small raised squares. Entire surface is lightly scored with single, almost continuous, spiralling line.							
25	280	Textile manufacture	Pin beater	Late Saxon	Saxo-Norman	Bone	1
Description: Incomplete spatulate-shaped with shallow groove on one broad face and gently curving profile on opposite.							
34	110	Unclassified	Worked stone	Medieval	12th - 14th c	Limestone	1
Description: Fragment; inverted conical-shape, with single central well.							
TRENCH 2							
20	378	Unclassified	Strip	Undated	U/S	Lead	1
Description: Neatly folded for re-use?							
29	369	Buildings: stonework	Nail	Undated	Early medieval	Iron	1
38	369	Unclassified	Artefact	Undated	Early medieval	Iron	1
Description: ?Knife blade fragment							
TRENCH 3							
2	399	Unclassified	Strip	Undated	Medieval (?13 th)	Copper alloy	1
Description: ?Buckle pin, of rectangular section							
16	407	Ind misc tools whetstones	Whetstone	Undated	Medieval (?13 th)	Stone	1
Description: all faces smooth through use; ends? broken.							
28	398	Furnishings and household equipment: querns	Quern stone	Medieval	Medieval (?13 th)	Lava	1

SF	Context	Category	Object Name	Object date	Context Date	Material	Quantity
Description: Fragment, in two pieces with flat worn grinding surface and opposite 'pecked' face. 329g							
46	535	Industrial leather-working	Off-cut		Saxo-Norman	Leather	39
Description: Small pieces, including triangular-shaped offcuts/miscellaneous shaped pieces and strips - one of which has holes for rivets with impression of square mounts? Many fragments retain neatly folded edges. Some of the larger pieces, of varying shape and sizes have curved and or straight edges and one, possibly two pieces, have been cut forming a slit. All pieces are of thin leather (?calf leather).							
TRENCH 5							
1	171	Diversions writing equipment	Pen	Medieval	Medieval (?14 th)	Bone	1
Description: Made from a goose radius with oblique cuts at distal end forming a pointed tip							
5	16	Unclassified	Pin	Undated	Late Med. (15th c)	Bone	1
Description: Top ?broken and perhaps originally perforated, pointed tip.							
7	18	Dress: fittings	Lacetag	Medieval	Late Med. (15th c)	Copper alloy	2
Description: x 2 each with rivet to hold lace in situ.							
8	18	Dress: pins	Pin	Medieval	Late Med. (15th c)	Copper alloy	1
Description: Wire-wound spherical head							
12	200	Unclassified	Plate	Undated	Unstratified	Copper alloy	1
Description: Uneven thickness – perhaps metalworking debris.							
13	200	Dress: belt – fittings	Strap end	Medieval	Unstratified	Copper alloy	1
Description: Made of three plates; cast front and back plate with lobed terminals and spacer plate. Remains of mineralised leather or textile in situ.							
14	18	Furnishings and household equipment knives and spoons	Knife	Undated	Late Med. (15th c)	Iron	1
Description: Blade, in two pieces with incomplete whittle tang.							
18	200	Furnishings and household equipment: weights	Weight	Undated	Unstratified	Lead	1
Description: Discoidal unofficial weight. 118g 4 1/8 oz							
19	230	Unclassified	Plate	Undated	Medieval (L12-13 th)	Lead	1
Description: Pierced, roughly lozenge-shaped plate, of uneven thickness.							
31	230	Buildings: lead work	Sheet	Undated	Medieval (L12-13 th)	Lead	1
Description: Perforated lead sheet fragment							
32	18	Furnishings and household equipment: knives and spoons	Knife	15th -16th c	Late Med. (15th c)	Iron	1
Description: Scale-tang knife handle with mineralised wooden scales; iron or copper alloy strips at both top and lower sides and end cap with pointed terminal; blade missing..							
33	18	Unclassified	Strip	Undated	Late Med. (15th c)	Iron	1
Description: Fragment							
45	171	Furnishings and household equipment: querns	Quern stone	Late Saxon +	Medieval (?14 th)	Lava	1
Description: Fragment with faint radial grooves on flat grinding surface. Opposite face 'pecked'. 425g							
TRENCH 6							
3	99	Dress: decoration	Mount	15th c	Late Med. (15-16th c)	Copper alloy	1
Description: Hexagonal mount, folded in two, with repoussé decoration of two cusped and segmented motifs at each perforated pointed end and lozenge at centre; single rivet visible at one (folded) end.							
4	95	Commercial activities coins	Coin	Medieval or post-medieval.	E.Post-med. (?16th c)	Silver	1
Description: Medieval or post-medieval coin. To be seen by Andy Barnett once x-rayed. Badly corroded.							
6	201	Dress: belt – fittings	Buckle	Late medieval – early post-medieval	Unstratified	Copper alloy	1

SF	Context	Category	Object Name	Object date	Context Date	Material	Quantity
Description: Small annular frame with central pin bar and iron pin.							
9	99	Furnishings and household equipment: miscellaneous fittings	Ring	LMT	Late Med. (15-16th c)	Copper alloy	1
Description: Suspension ring or simple buckle frame, of hexagonal section							
10	99	Dress: fittings	Lacetag	LMT	Late Med. (15-16th c)	Copper alloy	1
11	99	Furnishings and household equipment: vessels	Vessel		Late Med. (15-16th c)	Copper alloy	1
Description: Small cast container with sloping sides and circumferential grooves set in pairs one around central depression the other around edge, hinged lid and fastener.							
17	201	Furnishings and household equipment: miscellaneous fittings	Stud		Unstratified	Lead	1
Description: Cast with ?decorative head.							
21	201	Dress: personal possessions	Comb	Medieval	Unstratified	Ivory	1
Description: Double-sided with convex ends; stubs of fine teeth remain and 12 of 16 coarse teeth; 5 coarse and 9 fine teeth per 10mm. Flaking (to be sent to conservation for stabilising).							
23	95	Unclassified	Artefact	Undated	E.Post-med. (?16th c)	Iron	4
Description: x 4; incomplete and badly corroded.							
24	379	Unclassified	Strip	Undated	Unstratified	Copper alloy	1
Description: Curved section with copper alloy ?rivet. ?Binding strip.							
26	379	Unclassified	Ring	Undated	Unstratified	Iron	1
Description: Tethering ring or similar							
27	379	Buildings: door & window fittings	Fitting	Late post-medieval	Unstratified	Copper alloy	1
Description: Catch for sliding bolt.							
30	379	Furnishings and household equipment vessels	Artefact	15th – 16th c	Unstratified	Copper alloy	1
Description: Cast six-sided lid with domed pointed top. Remains of black lacquer on surfaces and ?iron rivet on one side.							
35	570	Buildings: structural ironwork	Nail	Undated	Late Med. (14-15 th)	Iron	1
36	95	Buildings: structural ironwork	Nail	Undated	E.Post-med. (?16th c)	Iron	2
Description: One very large example (112mm long) to be x-rayed. The other is 75mm long.							
37	344	Buildings: structural ironwork	Nail	Undated	Late Med. (15-16th c)	Iron	2
39	344	Unclassified	Artefact	Undated	Late Med. (15-16th c)	Iron	1
Description: Sub-rectangular-shaped bar; in three pieces.							
40	99	Furnishings and household equipment knives and spoons	Knife blade	Undated	Late Med. (15-16th c)	Iron	1
Description: Large knife, with incomplete blade and broken whittle-tang							
41	99	Unclassified	Artefact	Undated	Late Med. (15-16th c)	Iron	1
Description: ?Horseshoe fragment							
42	99	Unclassified	Artefact	Undated	Late Med. (15-16th c)	PM Iron	1
43	99	Unclassified	Bar	Undated	Late Med. (15-16th c)	Iron	1
Description: Long bar. ?Structural fitting.							
44	124	Unclassified	Artefact	Undated	Late Med. (15-16th c)	Iron	1
Description: Rod/tube of semi-circular section. ?Pipe fragment							

Appendix 12: Worked Stone Catalogue

Worked Stone					
Context	Trench	Context Type	Quantity	Weight (kg)	Comment
10	5	Flint Wall	1	0.763	Limestone block of Caen stone. One flat fine-axe tooled surface: c.12 th -century
18	5	Pit fill	1	0.029	Heavily burnt limestone fragment from the fill of a 15 th -century waste pit
241	5	Hearth stones	1	1.951	Incomplete granite cobble, perhaps kerb stone
278	5	Layer	1	0.118	Small piece of limestone with two worked surfaces forming an angle
486	6	Fill of 'French Drain' [492]	1	1.783	Large incomplete limestone block with three smooth worked surfaces, one with traces of mortar adhering and opposing surface weathered.
Total			5	4.644	

Appendix 13: Environmental Evidence Catalogue

Sample No.	2	3	9	11	12	13	15	25
Context No.	18	213	340	473	446	535	537	568
Feature No.	13	212		472	445			565
Feature type	Pit	Pit	AS	Pit	Pit	Layer	Layer	Feature
Cereals								
<i>Avena</i> sp. (grains)							x	
<i>Hordeum</i> sp. (rachis nodes)		x						
<i>Hordeum/Secale cereale</i> type (rachis nodes)		xx						x
<i>Secale cereale</i> L. (rachis nodes)		xcf						
<i>Triticum</i> sp. (grains)								
<i>T. aestivum/compactum</i> type (rachis nodes)		x						
<i>T. turgidum</i> type (rachis node)		xcf						
Cereal indet. (grains)	x	x			x			x
(basal rachis nodes)		x						
(rachis node frag.)						xw		
Herbs								
<i>Agrostemma githago</i> L.		xcftf						
<i>Anthemis cotula</i> L.						xw		
Apiaceae indet.		x						
<i>Atriplex</i> sp.						xcfw		
<i>Bromus</i> sp.		xcf						
<i>Chenopodium album</i> L.						xw		
Fabaceae indet.		x						
<i>Fallopia convolvulus</i> L.(A.Love)								x
<i>Persicaria maculosa/lapathifolia</i>							xw	
Polygonaceae indet.						xw		
<i>Rumex</i> sp.		x				xw		
<i>Sherardia arvensis</i> L.				x				
<i>Urtica dioica</i> L.							xw	
<i>U. urens</i> L.						xw		

<i>Vicia/Lathyrus</i> sp.		x		x				
Wetland plants								
<i>Carex</i> sp.				x				
<i>Juncus</i> sp.						xw		
Heathland plants								
<i>Calluna vulgaris</i> L. (capsules)		xx						
<i>Erica tetralix</i> L. (leaf)						xcfw		
Ericaceae indet. (stem)		xxx		xxx				
(florets)		xx			x			
<i>Pteridium aquilinum</i> (L.)Kuhn (pinnule frags.)		xxx				xw		x
Tree/shrub macrofossils								
<i>Corylus avellana</i> L.			xw					
<i>Ilex aquifolium</i> L. (leaf)						xw		
<i>Sambucus nigra</i> L.						xw		
Other plant macrofossils								
Charcoal <2mm	xxx	x	xx	xxxx	xx	x	x	xx
Charcoal >2mm	xx		x	xx	x		x	x
Charred root/stem	x	xxxx		xxxx	x			xxxx
Waterlogged root/stem			x			xxxx	xx	
Mineral replaced root/stem	x							
Mineralised root channels				x				
Indet.culm nodes/culm frags.		xx						xxx
Indet.florets		xx						
Indet.inflorescence frags.		xx						
Indet.moss						xw	xw	
Indet.seeds	xm	x		x				
Wood frags.>5mm						xw	xw	
Degraded wood/bark							xxx	
Mollusc shells								
Open country species								
<i>Vallonia</i> sp.		xb						
Catholic species								
<i>Cochlicopa</i> sp.	x							
<i>Trichia hispida</i> group	x	x						
Other materials								
Black porous 'cokey' material	x			x	x			
Bone	x							
Burnt/fired clay				x				
Burnt stone		x						
Compacted organic concretions							xxx	
Eggshell			x					
Fish bone	xxx						x	x
Mineralised/faecal concretions	xxxx			x	x			
Mortar/plaster/daub	x							
Small coal frags.	x							
Vitrified material	x							
Charred arthropod remains								x
Waterlogged arthropod remains						x		
Sample volume (litres)	8	4	0.5	10ss	10	10ss	1	16
Volume of flot (litres)	<0.1	0.2	<0.1	0.1	<0.1	0.4	<0.1	0.2
% flot sorted	100%	50%	100%	100%	100%	25%	100%	50%

Key to Table

x = 1 – 10 specimens xx = 10 – 50 specimens xxx = 50 – 100 specimens xxxx = 100+ specimens

cf = compare tf = testa fragment w = waterlogged b = burnt ss = sub-sample

AS = augur sample

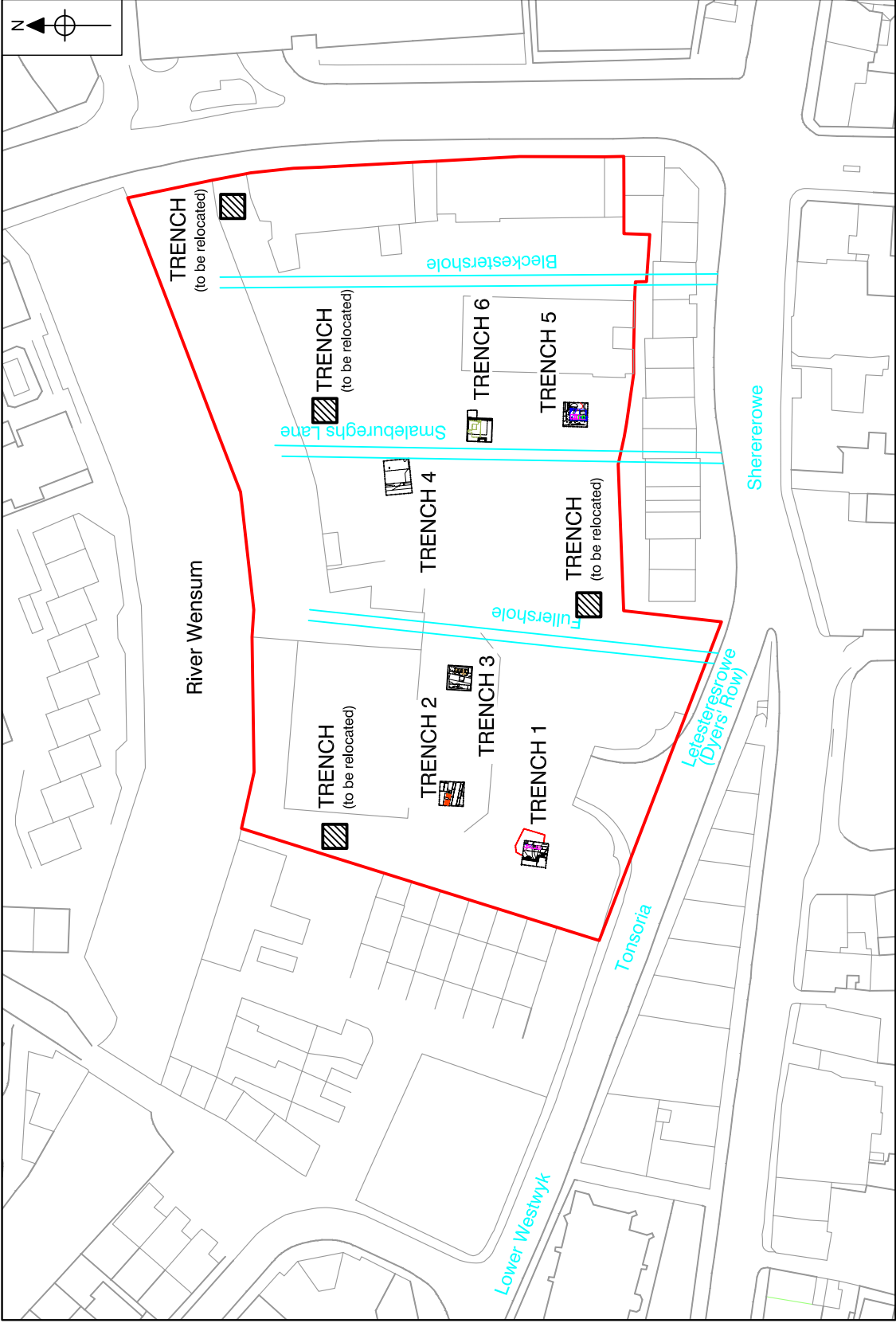


Figure 2. Trench location with approximate location of lost medieval lanes. Scale 1:1000

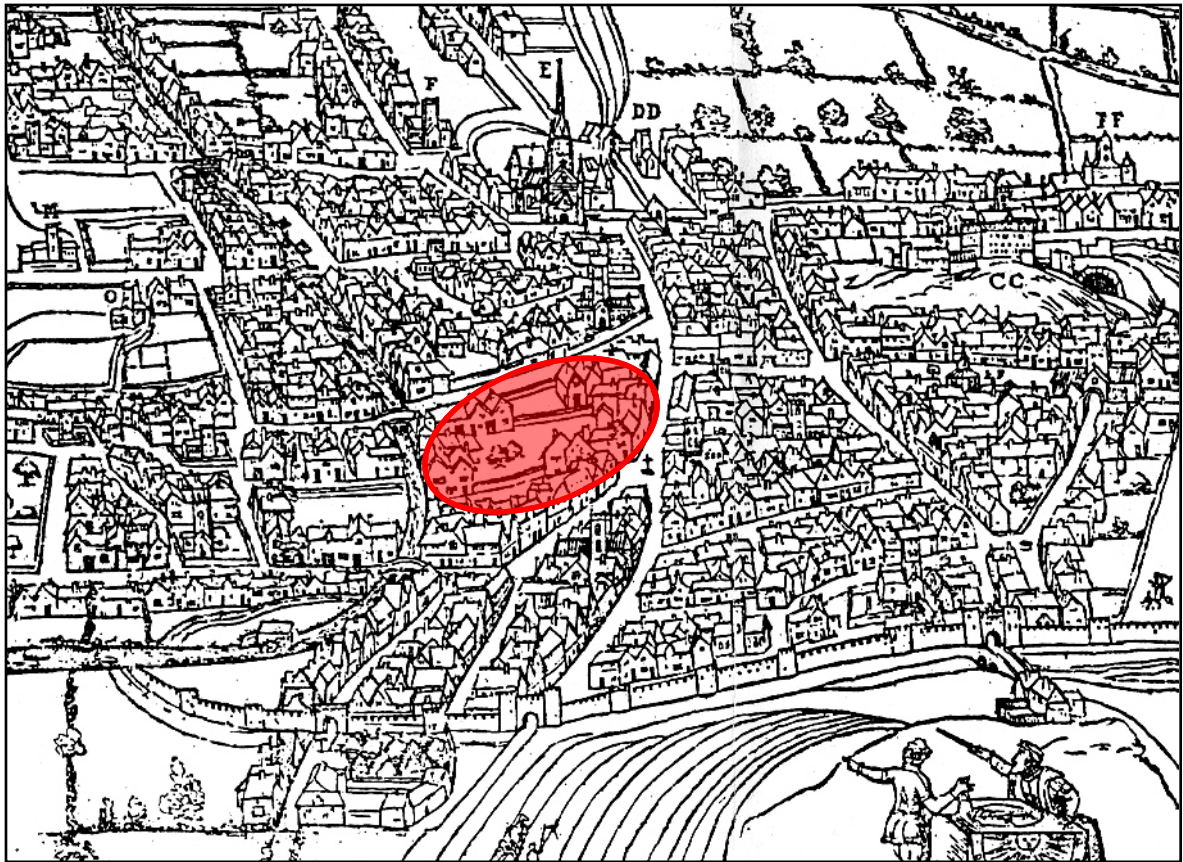


Figure 3. Cuningham's Plan of Norwich 1558, showing the area of the site

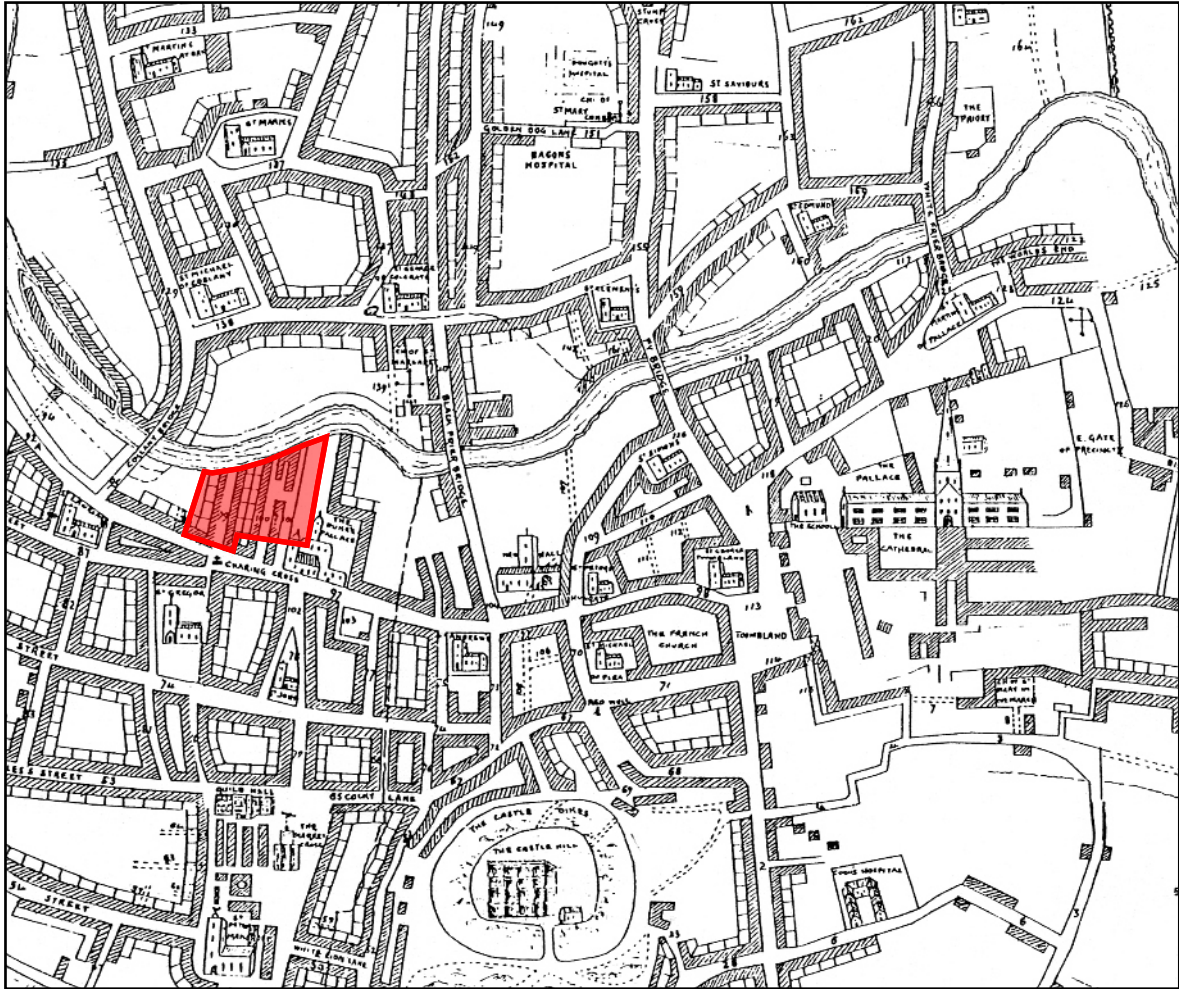


Figure 4. Henry Cleer's 1696 map of Norwich

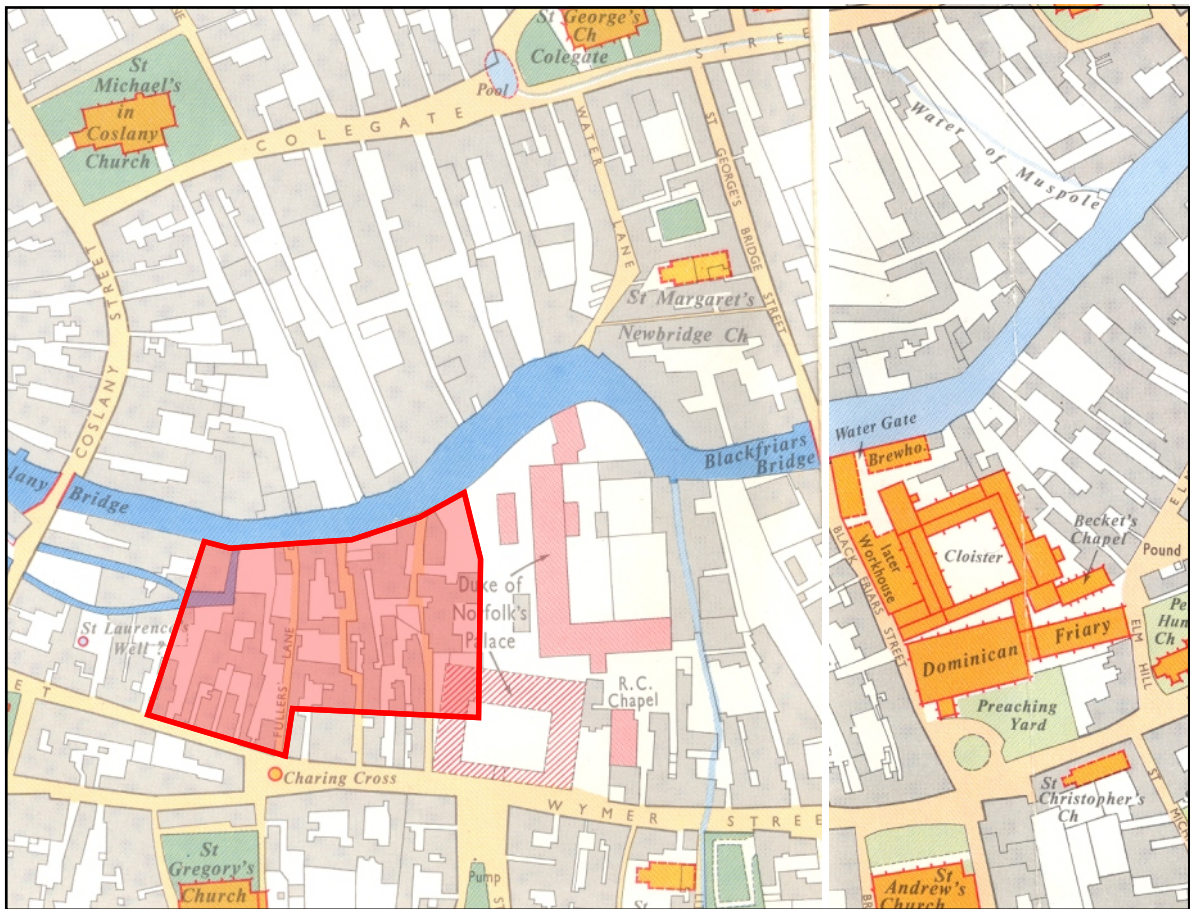


Figure 5. Hochstetter's 1789 plan of Norwich, redrawn in Campbell, 1975

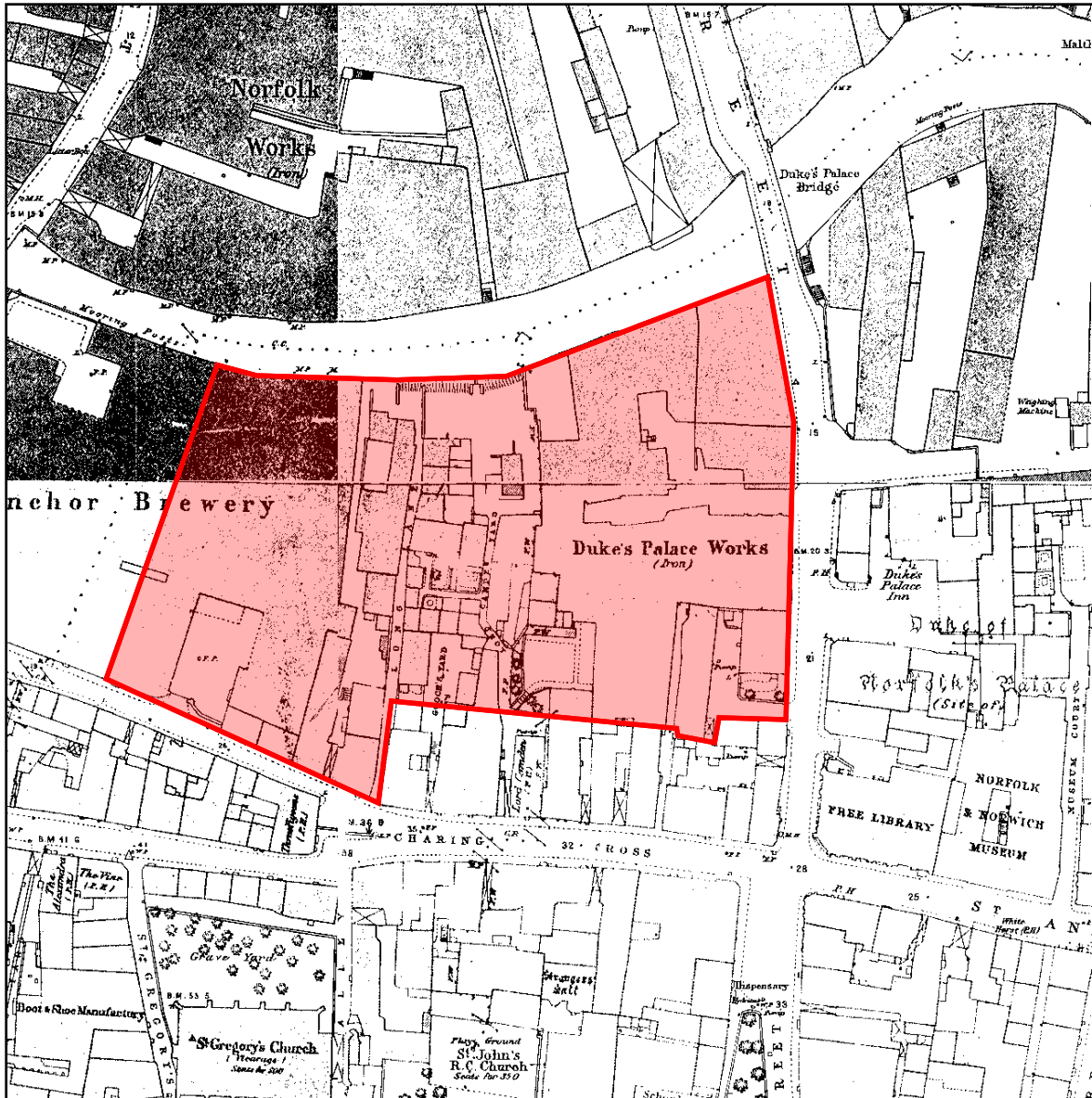


Figure 7. OS 25" map of Norwich 1st Edition 1885

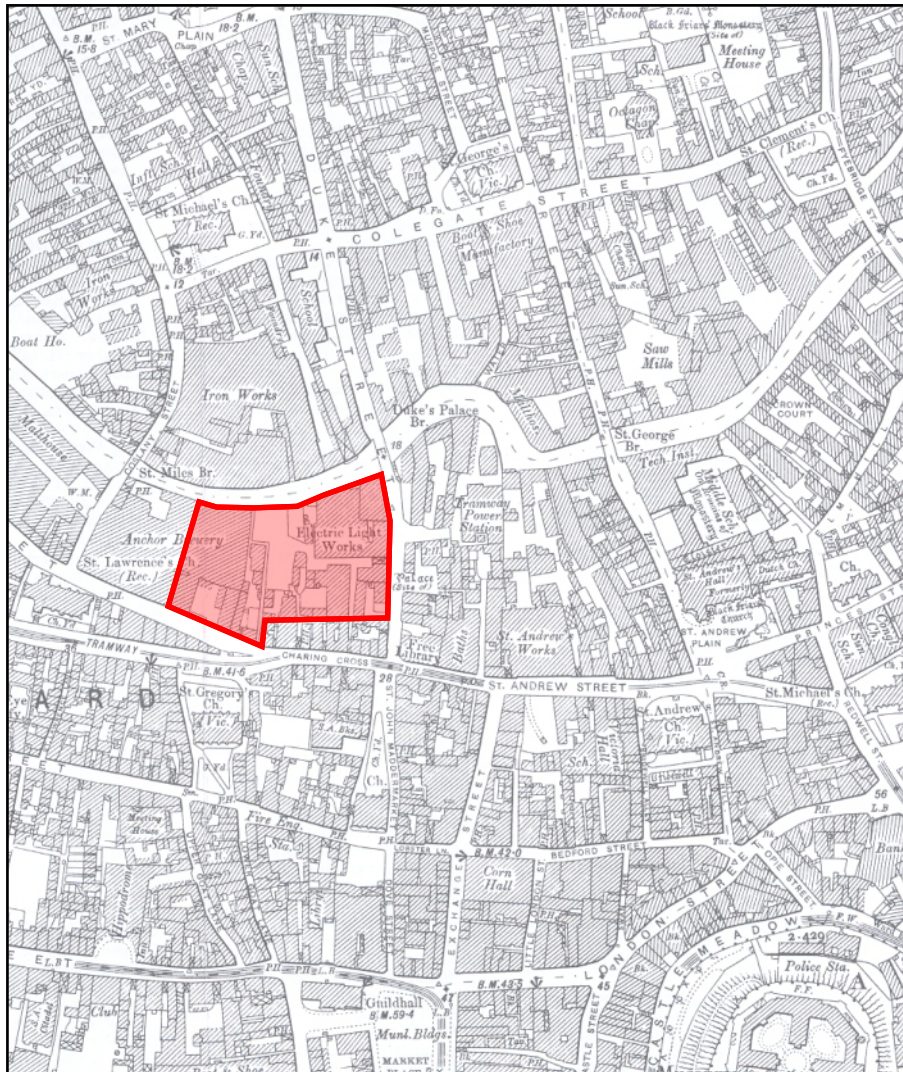


Figure 8. OS 25" 1905 map of Norwich

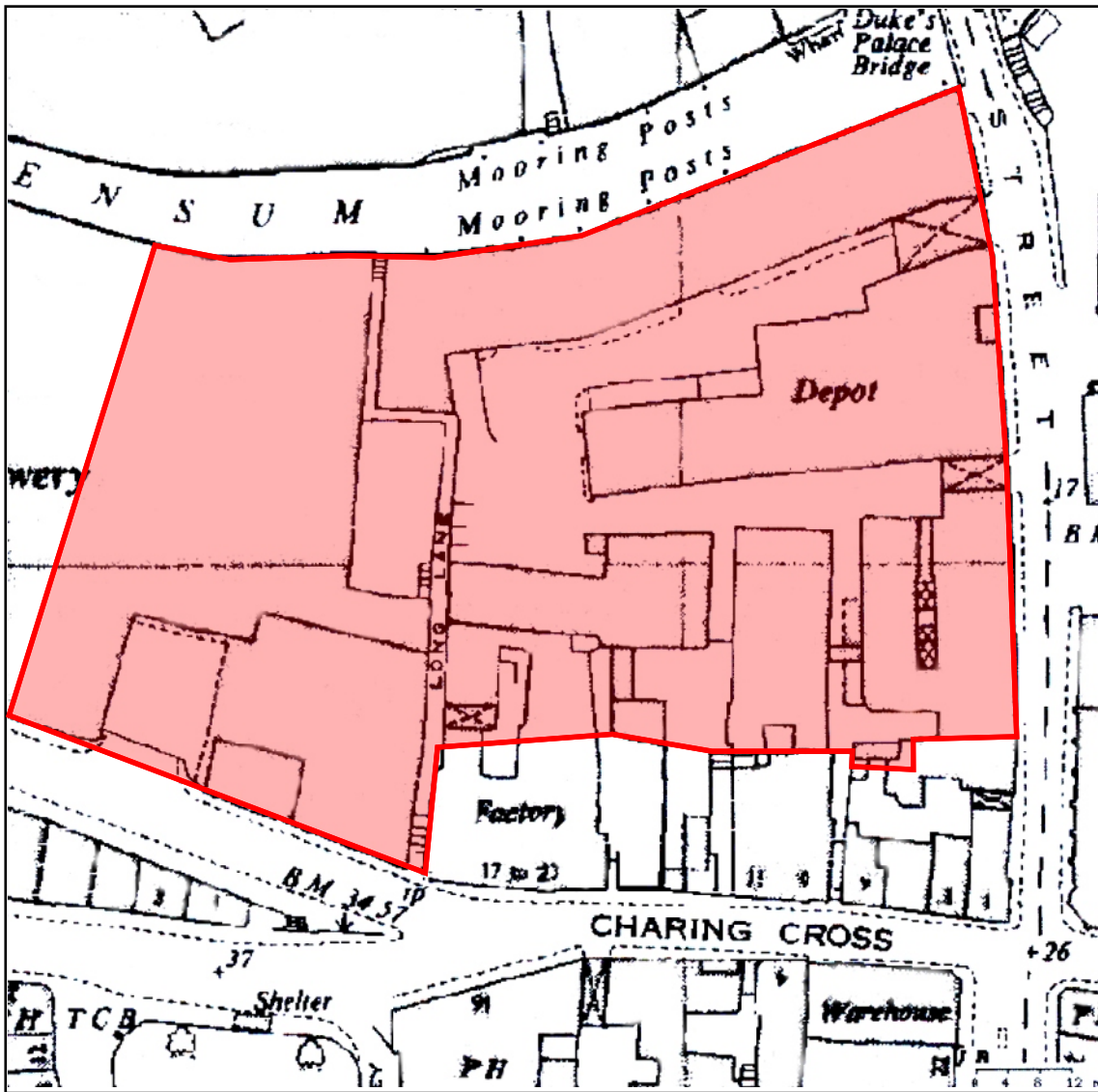


Figure 9. OS 1:2500 1965 map of Norwich

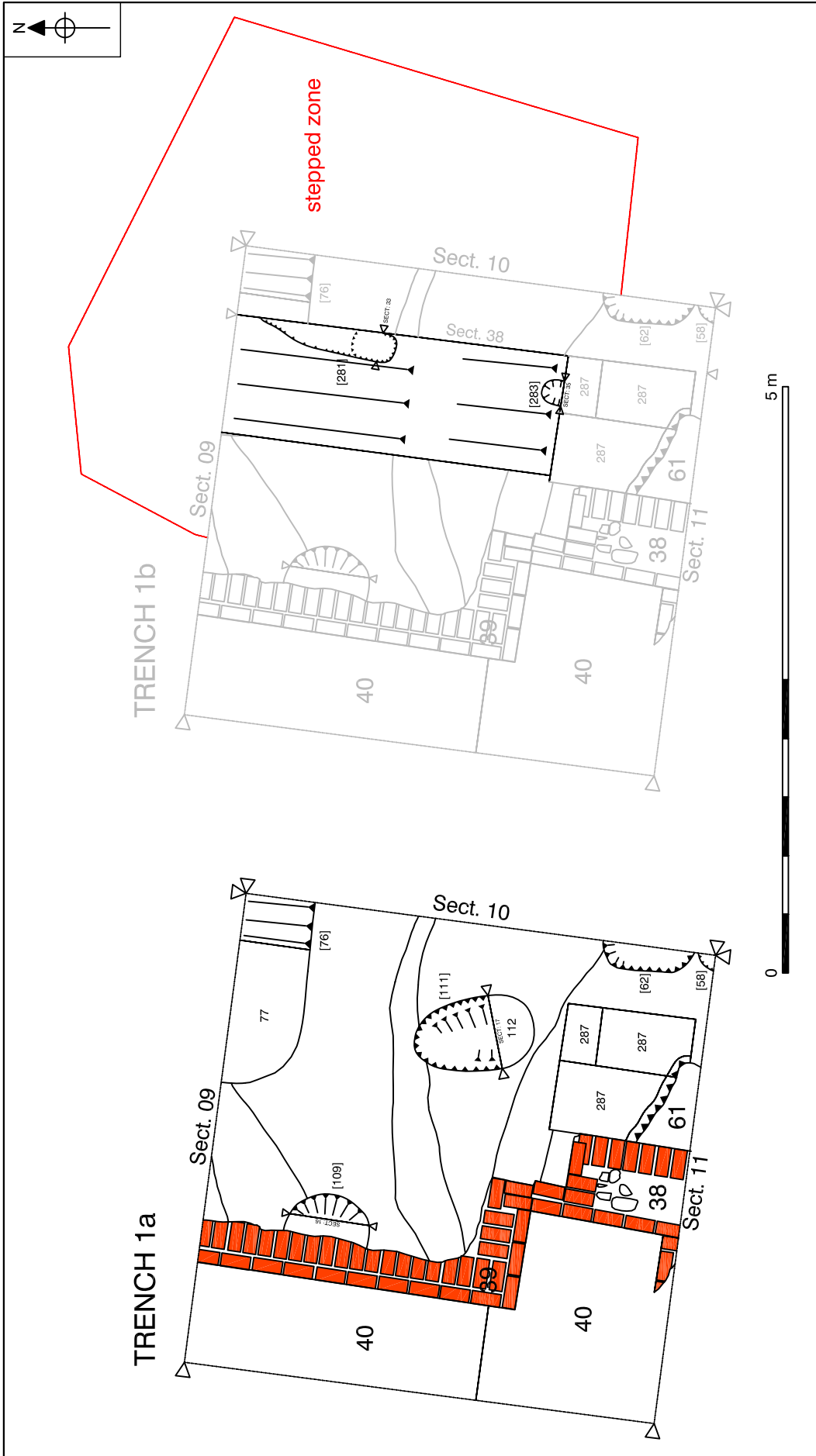


Figure 10. Trench 1, plans. Scale 1:50 (1a and 1b)

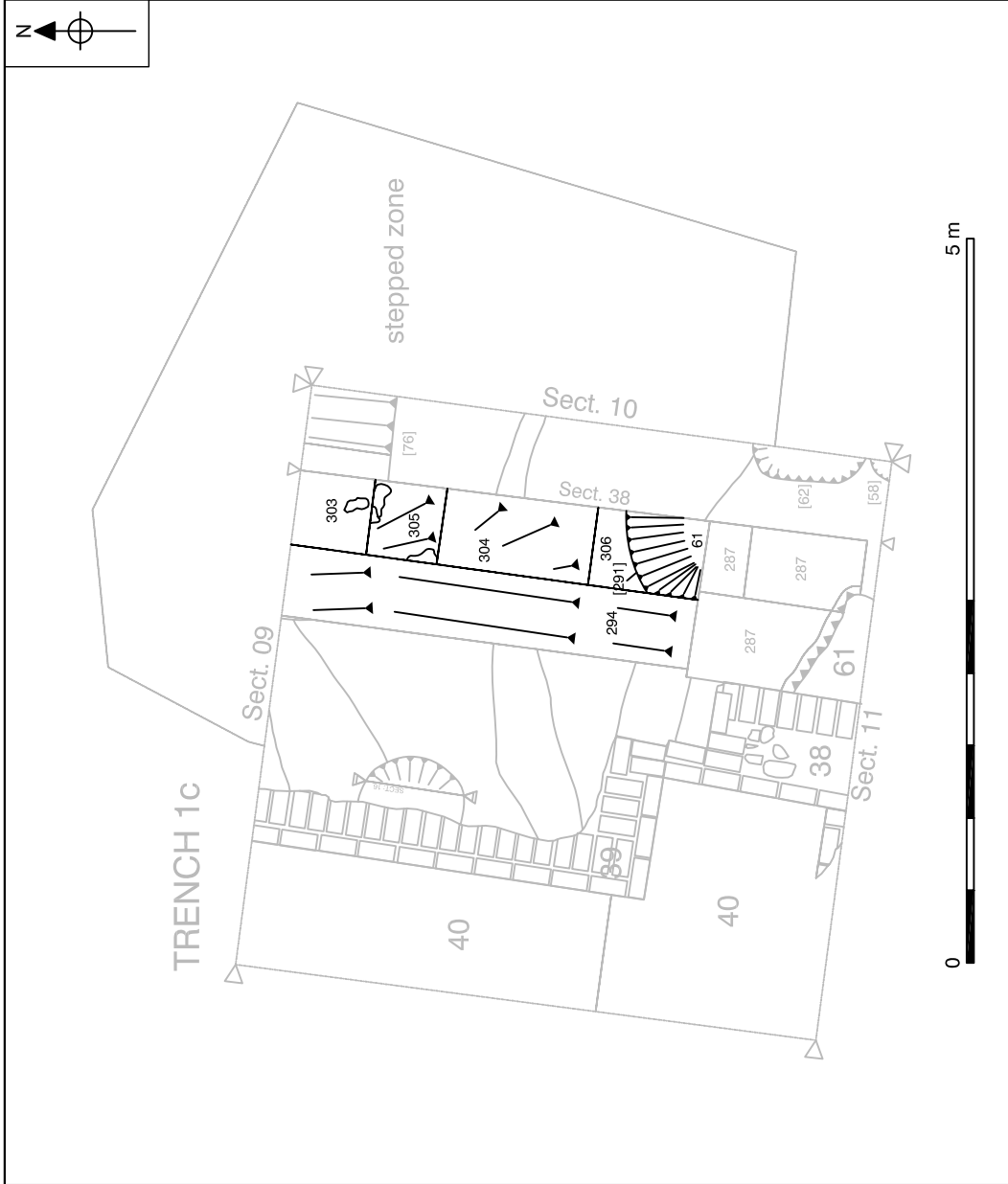


Figure 11. Trench 1, plan. Scale 1:50 (1c)

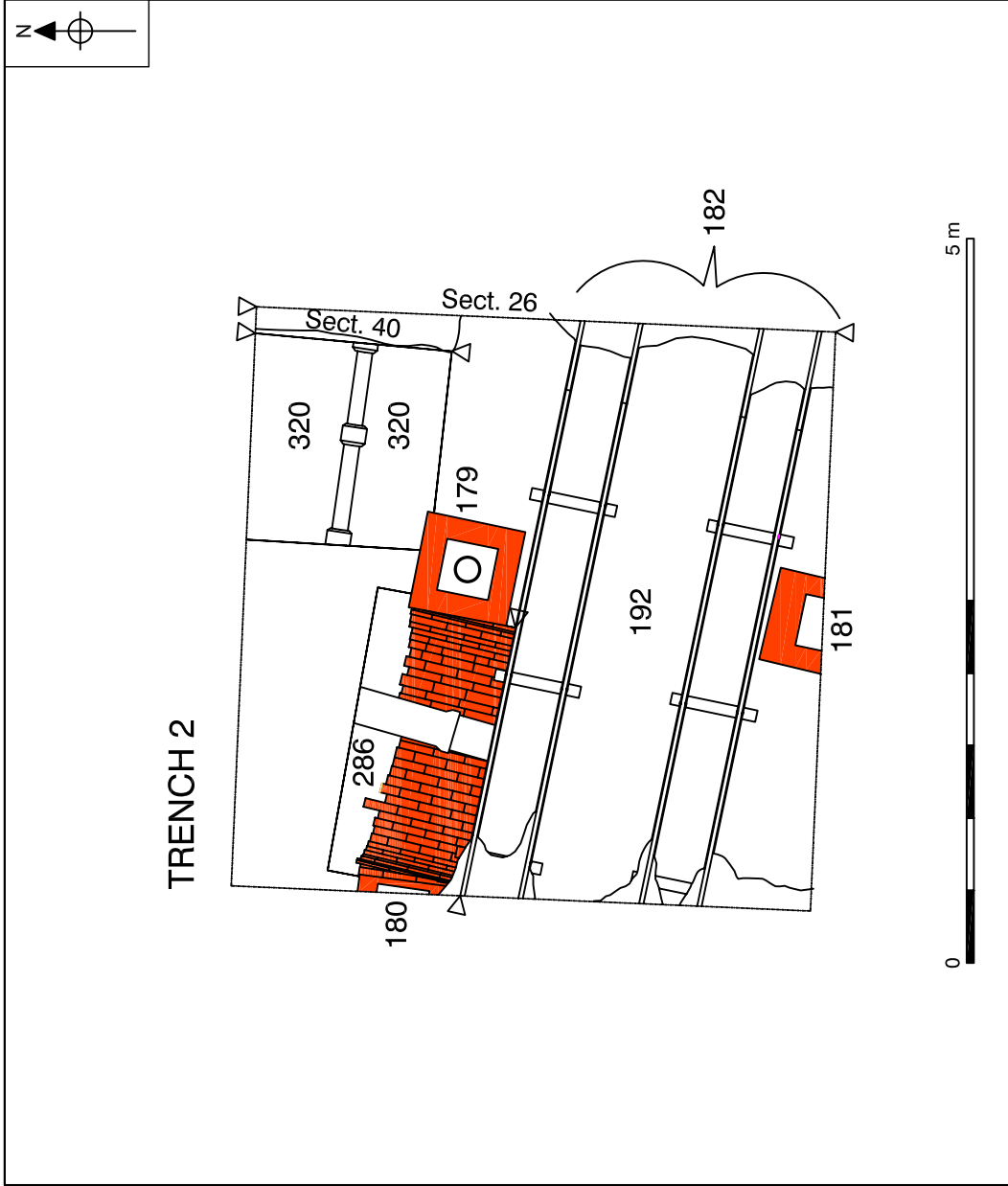


Figure 12. Trench 2, plan. Scale 1:50



Figure 13. Trench 3, plan. Scale 1:50 (3a)



Figure 14. Trench 3, plan. Scale 1:50, detail at 1:20. (3b)

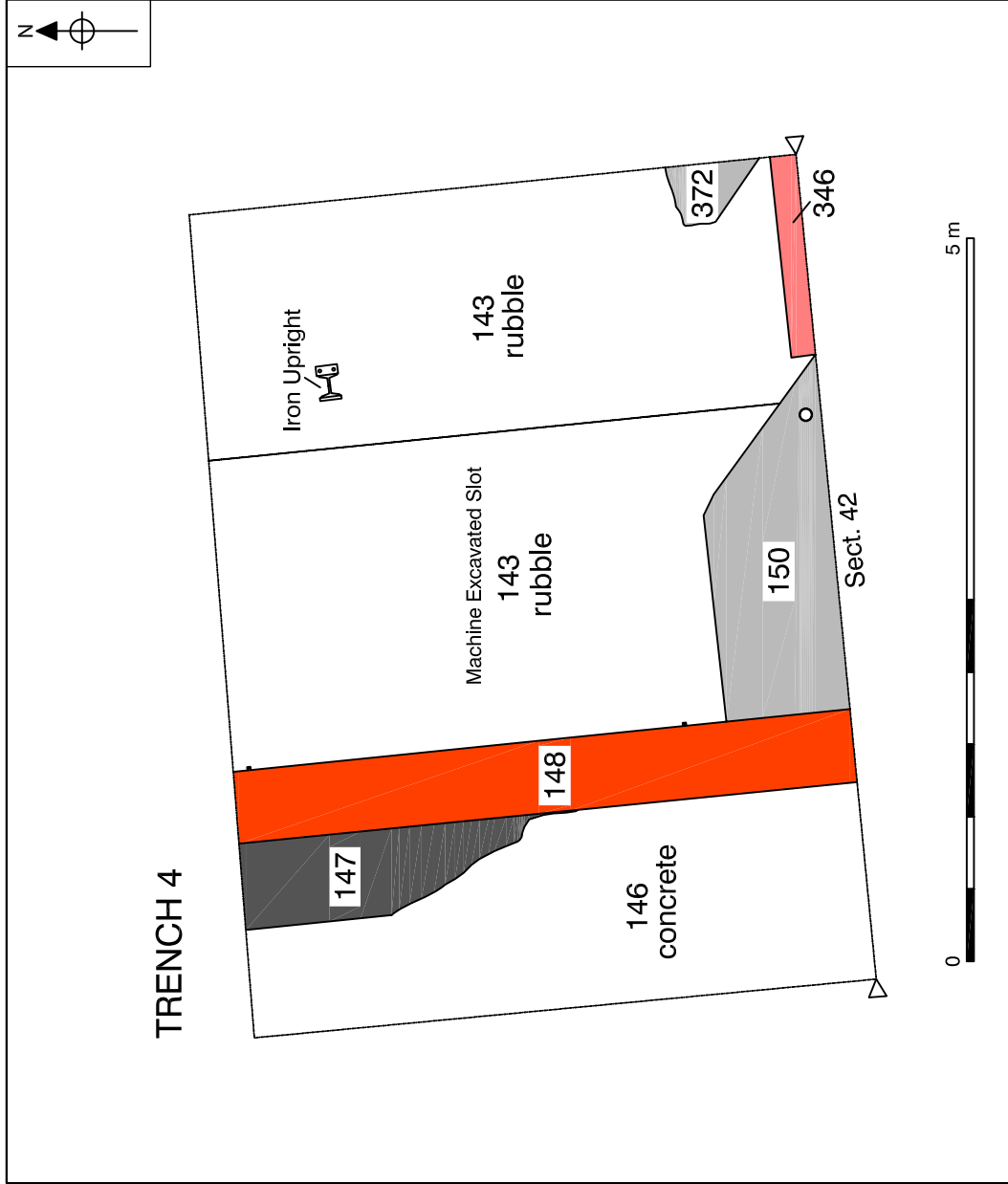


Figure 15. Trench 4, plan. Scale 1:50

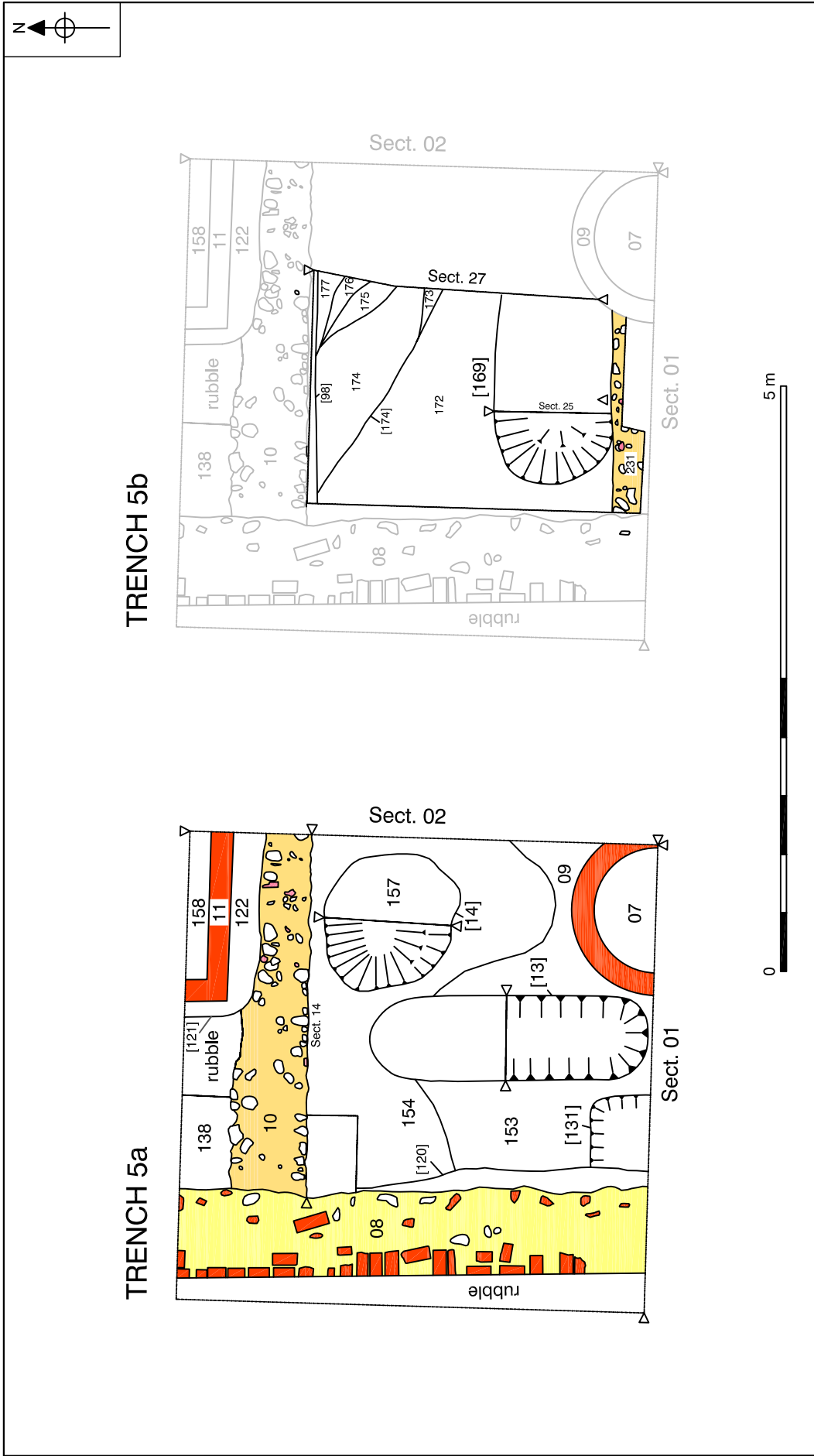


Figure 16. Trench 5, plans. Scale 1:50 5a and 5b)

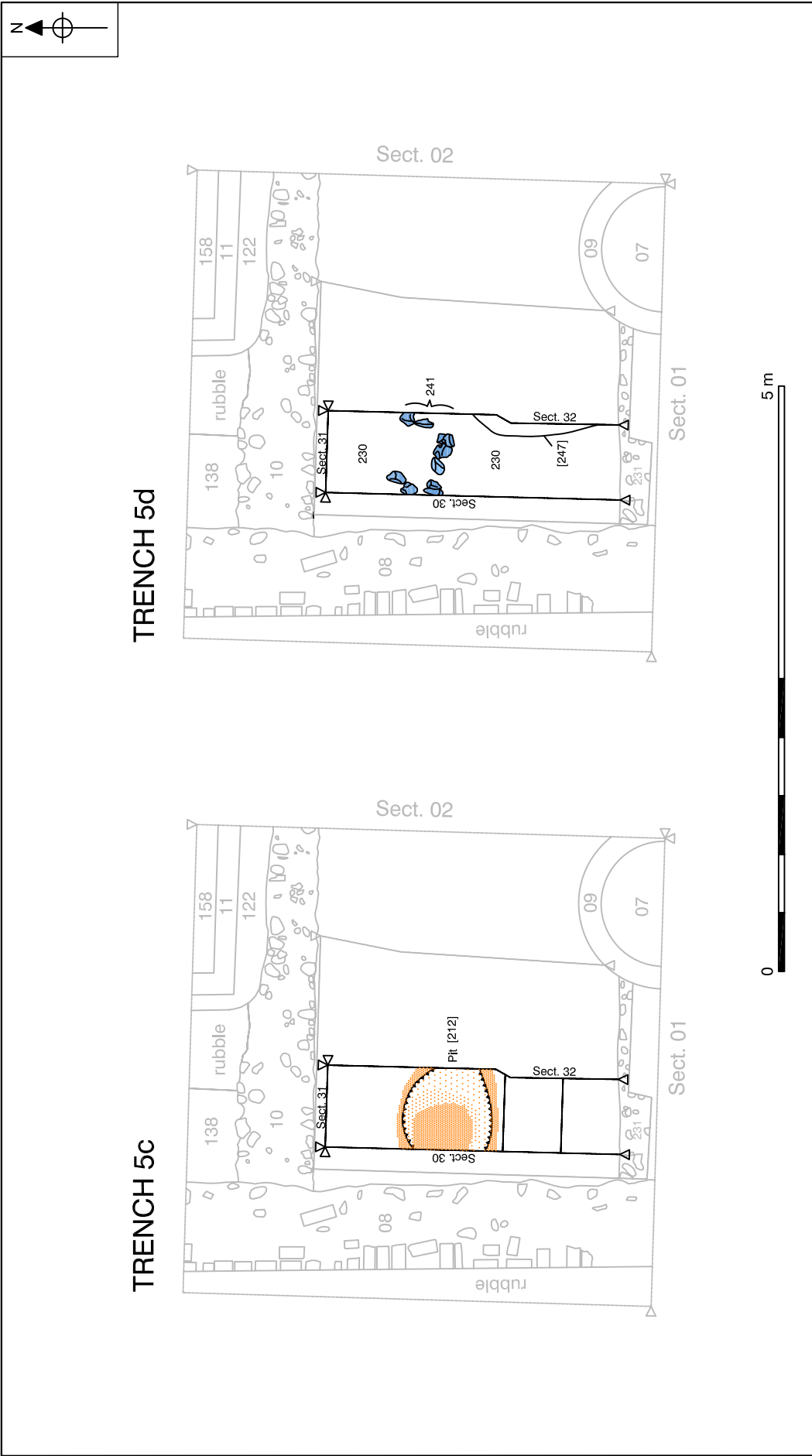


Figure 17. Trench 5, plan. Scale 1:50 (5c and 5d)

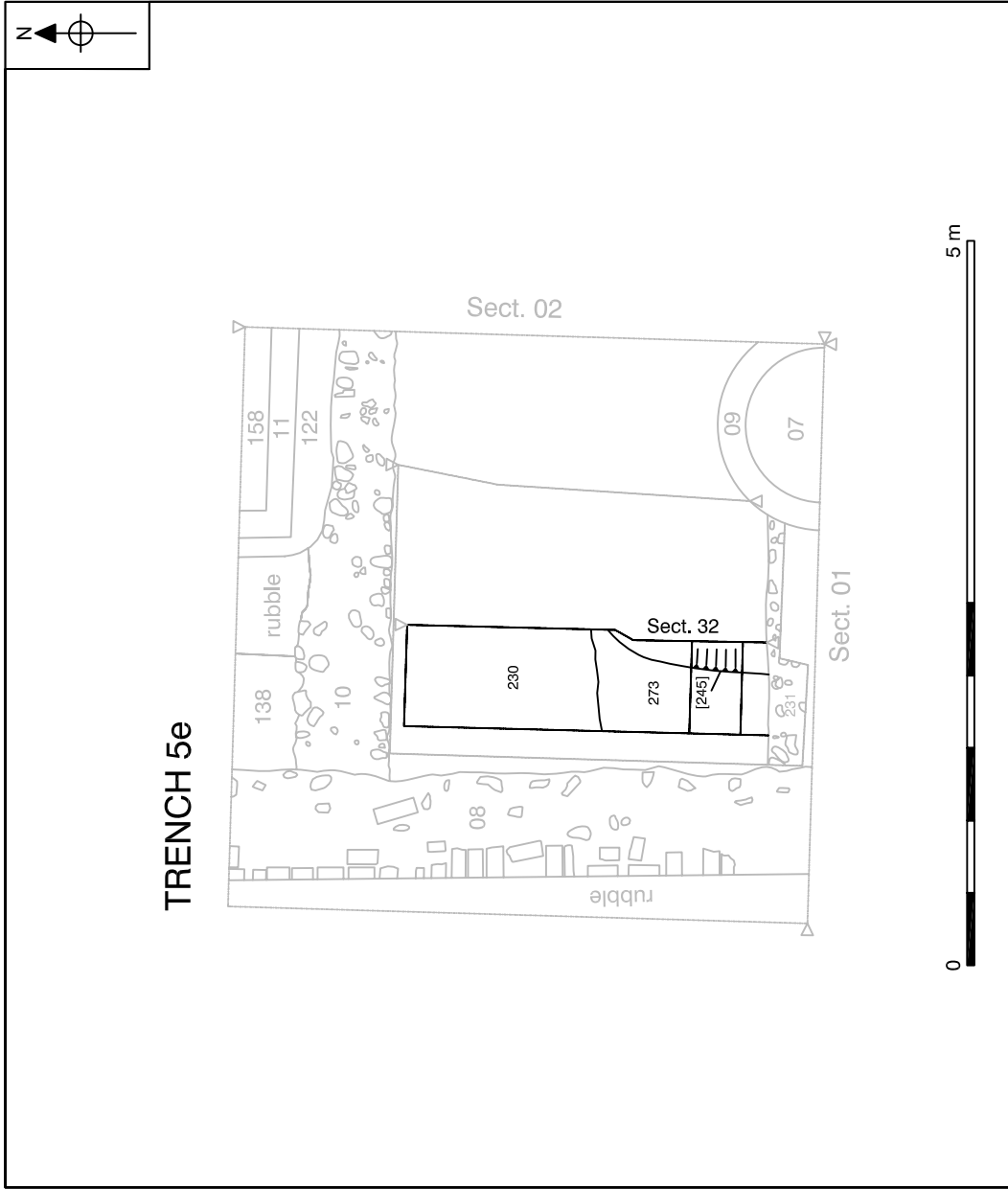


Figure 18. Trench 5, plan. Scale 1:50 (5e)

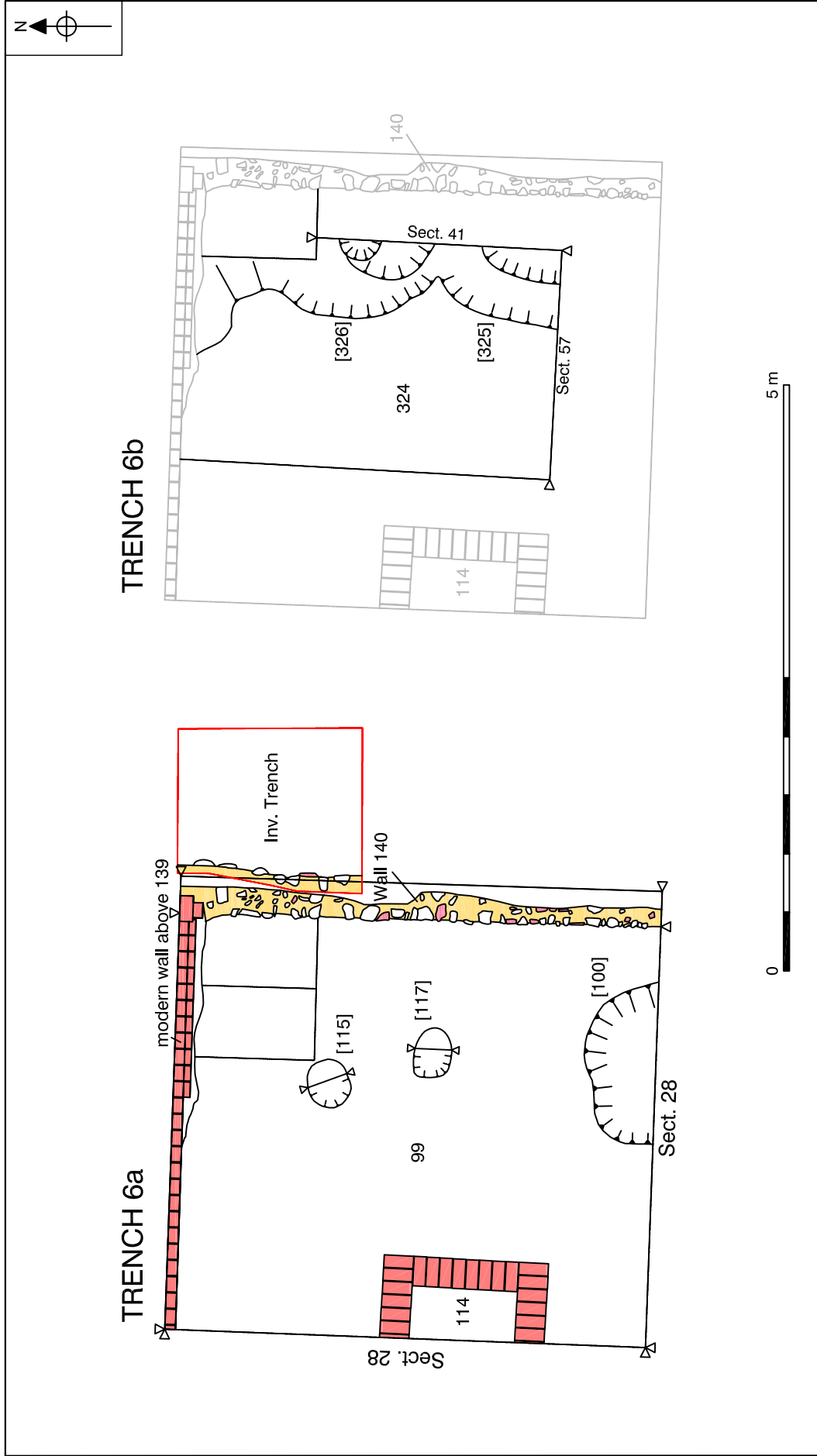


Figure 19. Trench 6, plans. Scale 1:50 (6a and 6b)



Figure 20. Trench 6, plans. Scale 1:50 (6c and 6d)

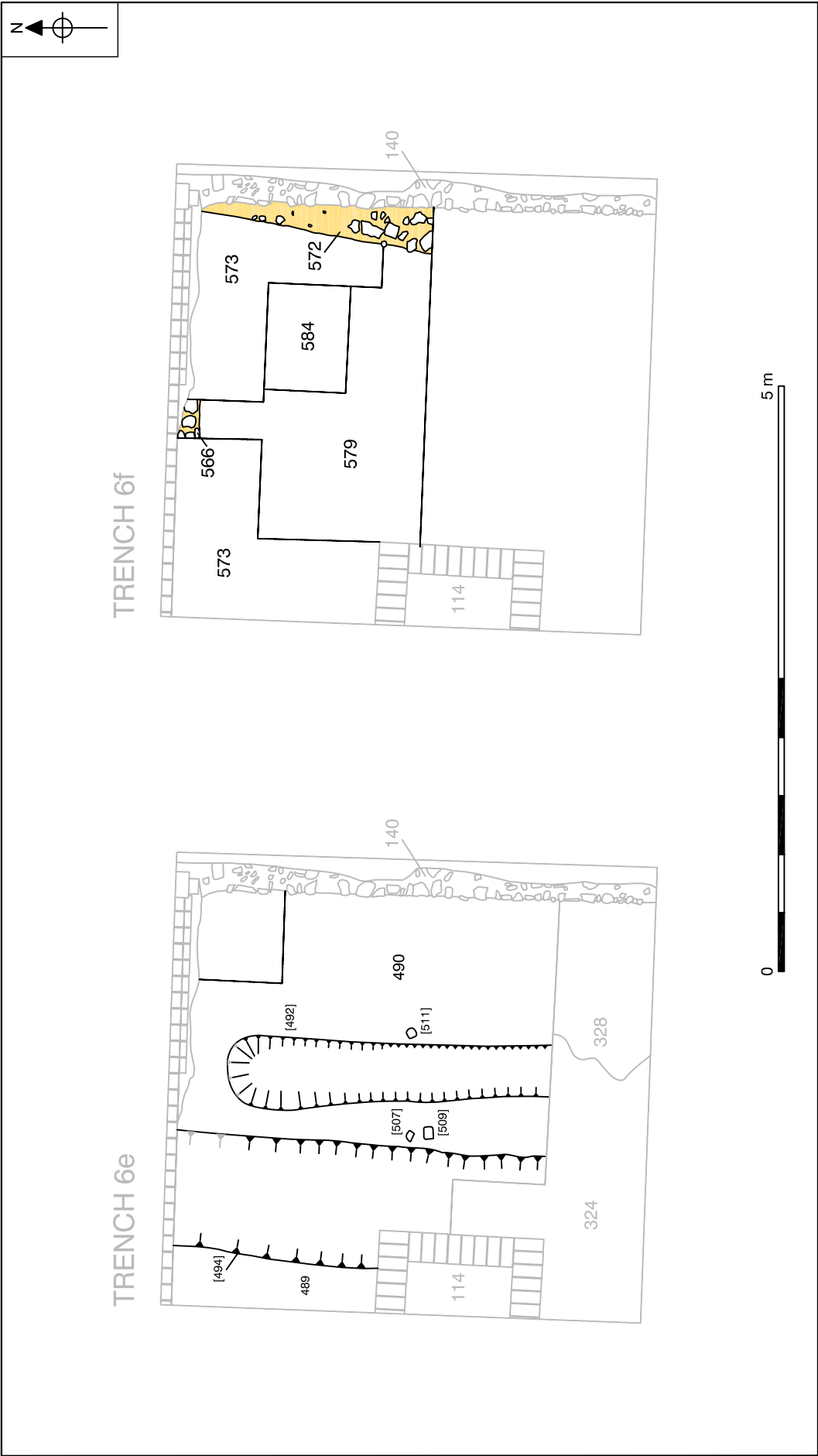
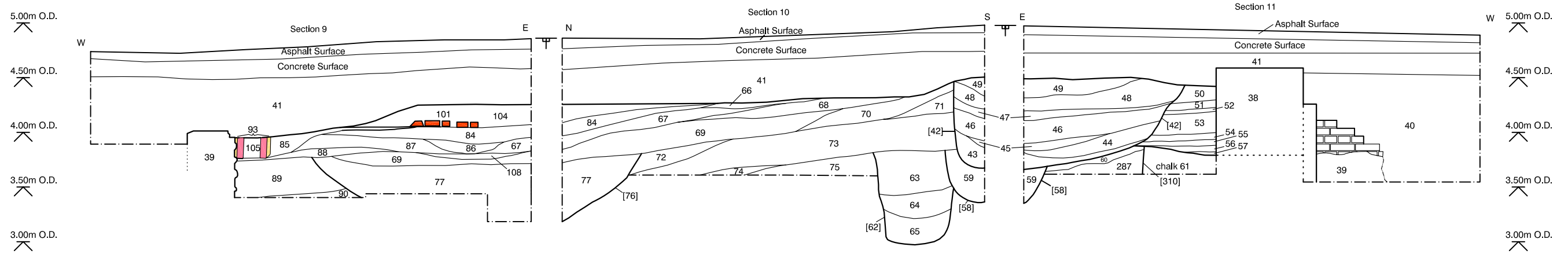


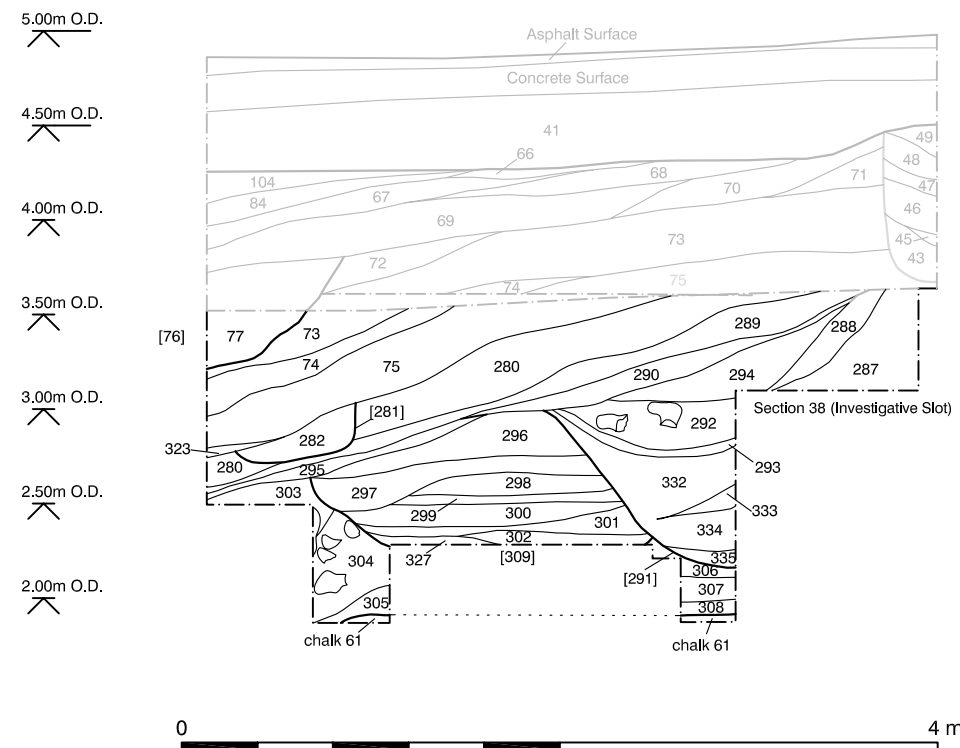
Figure 21. Trench 6, plans. Scale 1:50 (6e and 6f)

Trench 1

Trench 1: Bulk Sections (Sections 9, 10 + 11)



Trench 1: Composite Section (Sections 10 + 38)



Trench 1: Pit/Posthole Sections

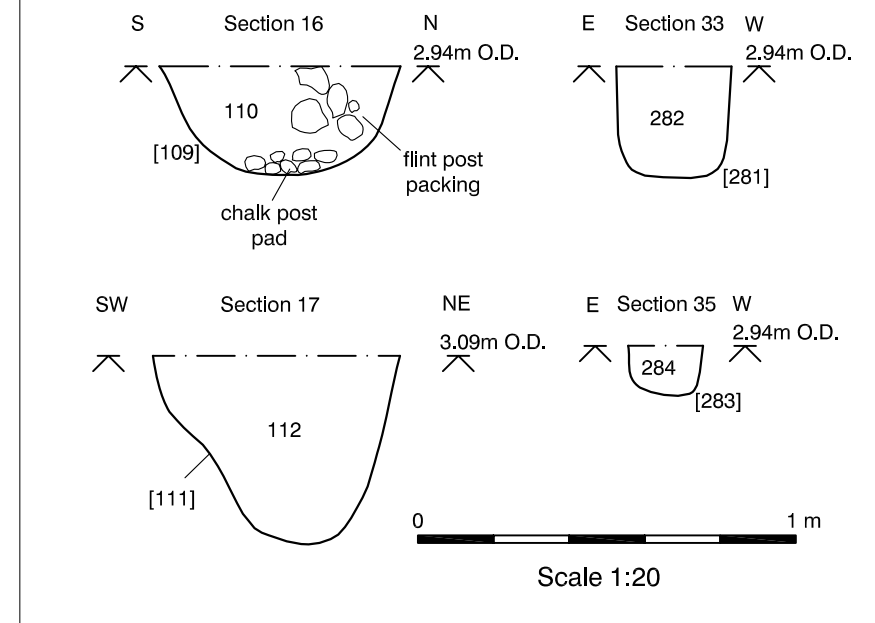


Figure 22. Trench 1 sections. Scale 1:40

Trench 2

Trench 2: W.Facing Composite Section (Sections 26+ 40)

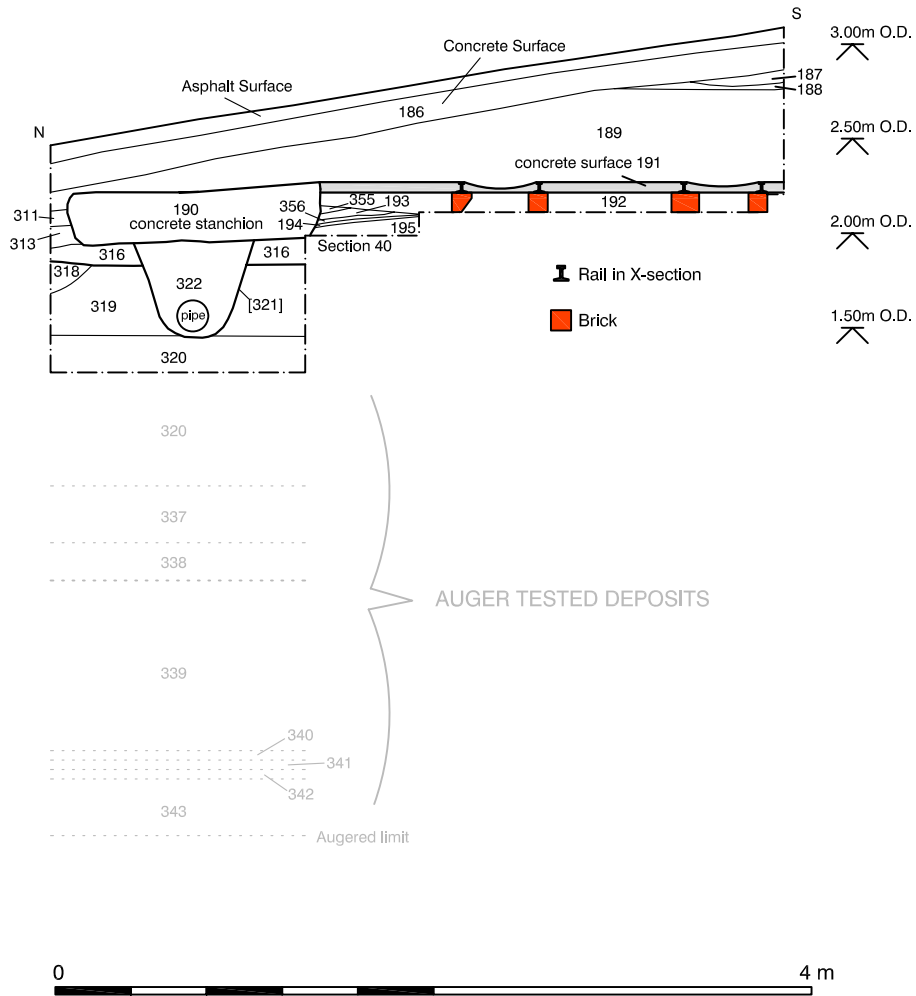
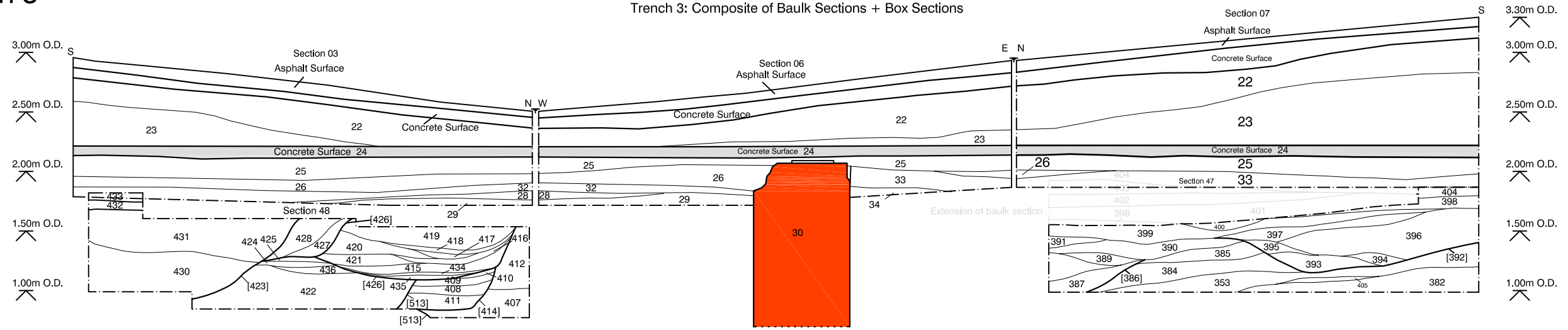


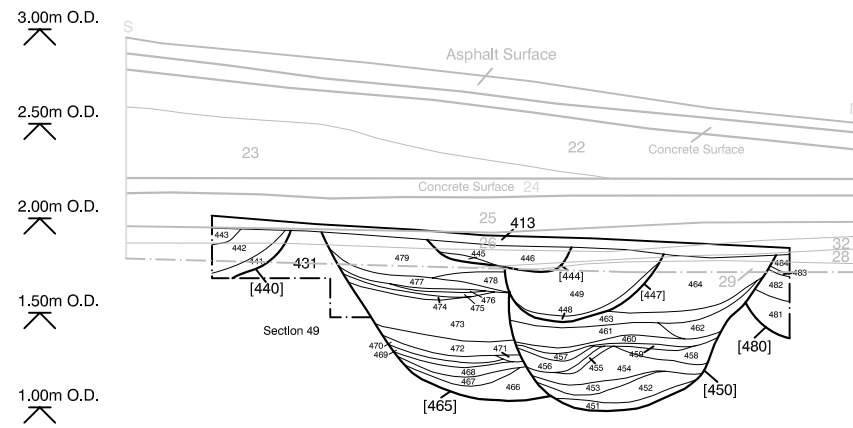
Figure 23. Trench 2 sections. Scale 1:40

Trench 3

Trench 3: Composite of Baulk Sections + Box Sections



Trench 3: Composite Section of excavated pits at the edge of E.Facing Baulk



Trench 3: Composite Section down to lower deposits

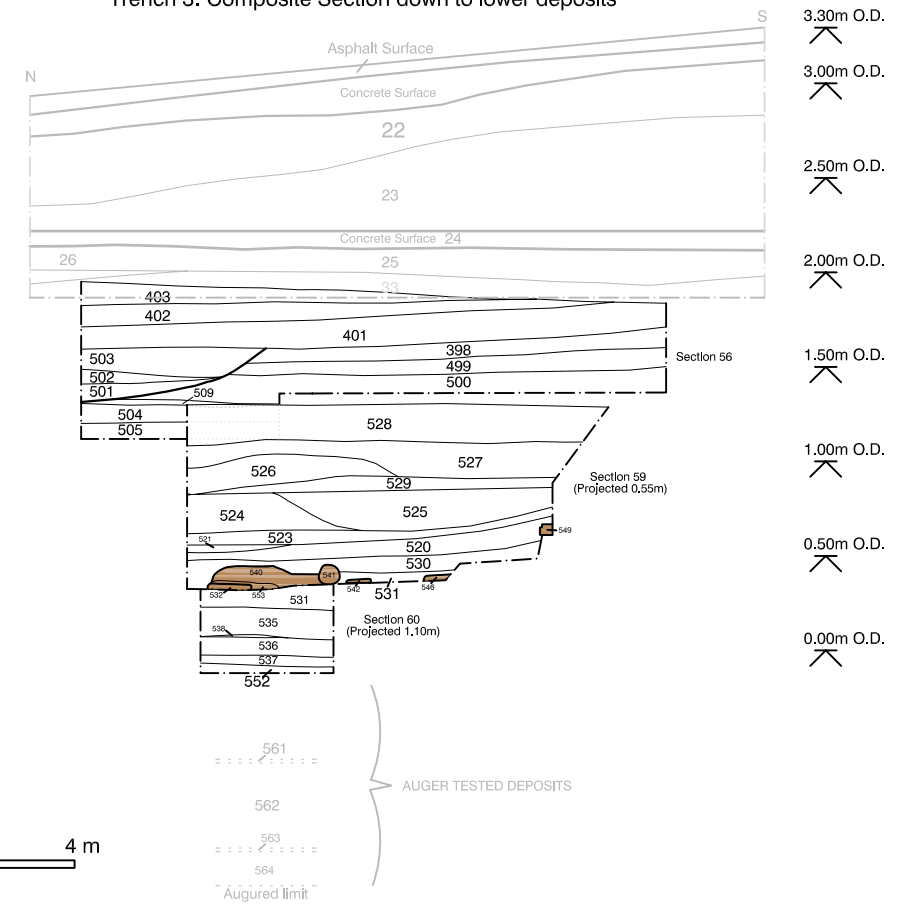
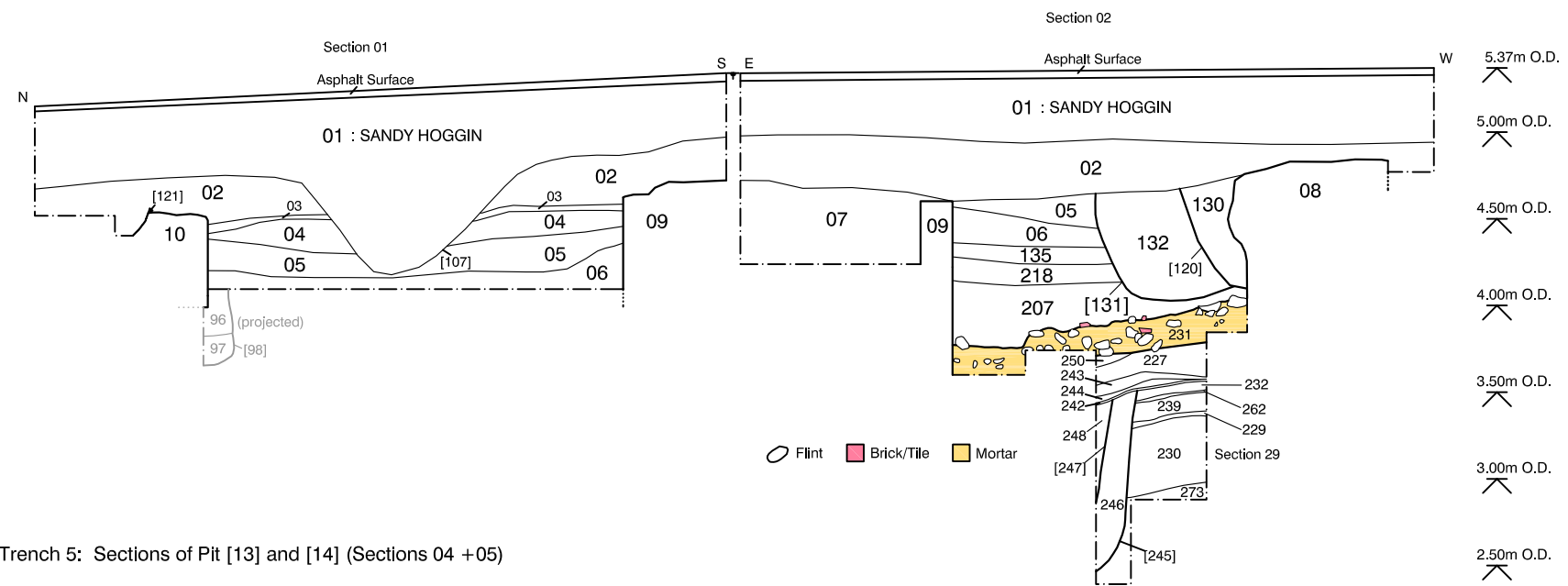


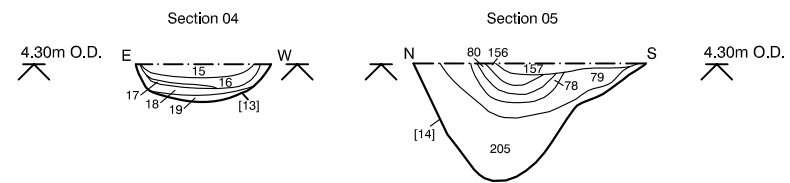
Figure 24. Trench 3 sections. Scale 1:40

Trench 5

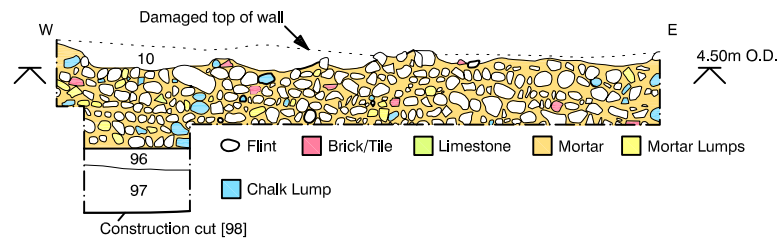
Trench 5: W and N.Facing Composite Sections (Section 14)



Trench 5: Sections of Pit [13] and [14] (Sections 04 +05)



Trench 5: S.Facing Elevation of Wall 10 (Section 14)



Trench 5: Composite Sections of Sondage (Sections 30, 31 +32)

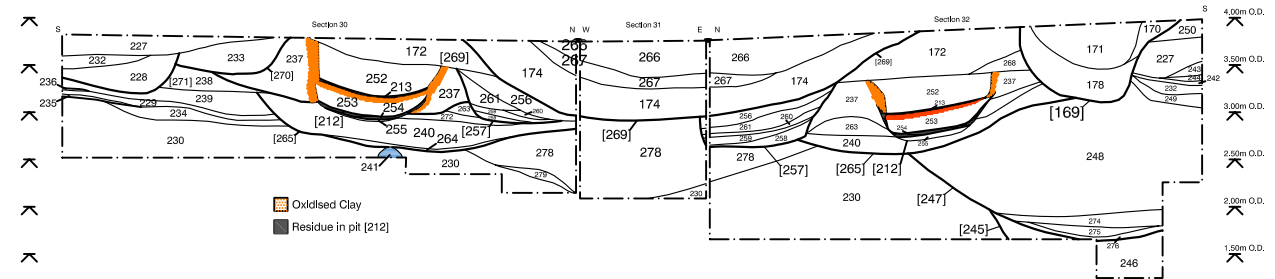


Figure 26. Trench 5 sections. Scale 1:40

Trench 6

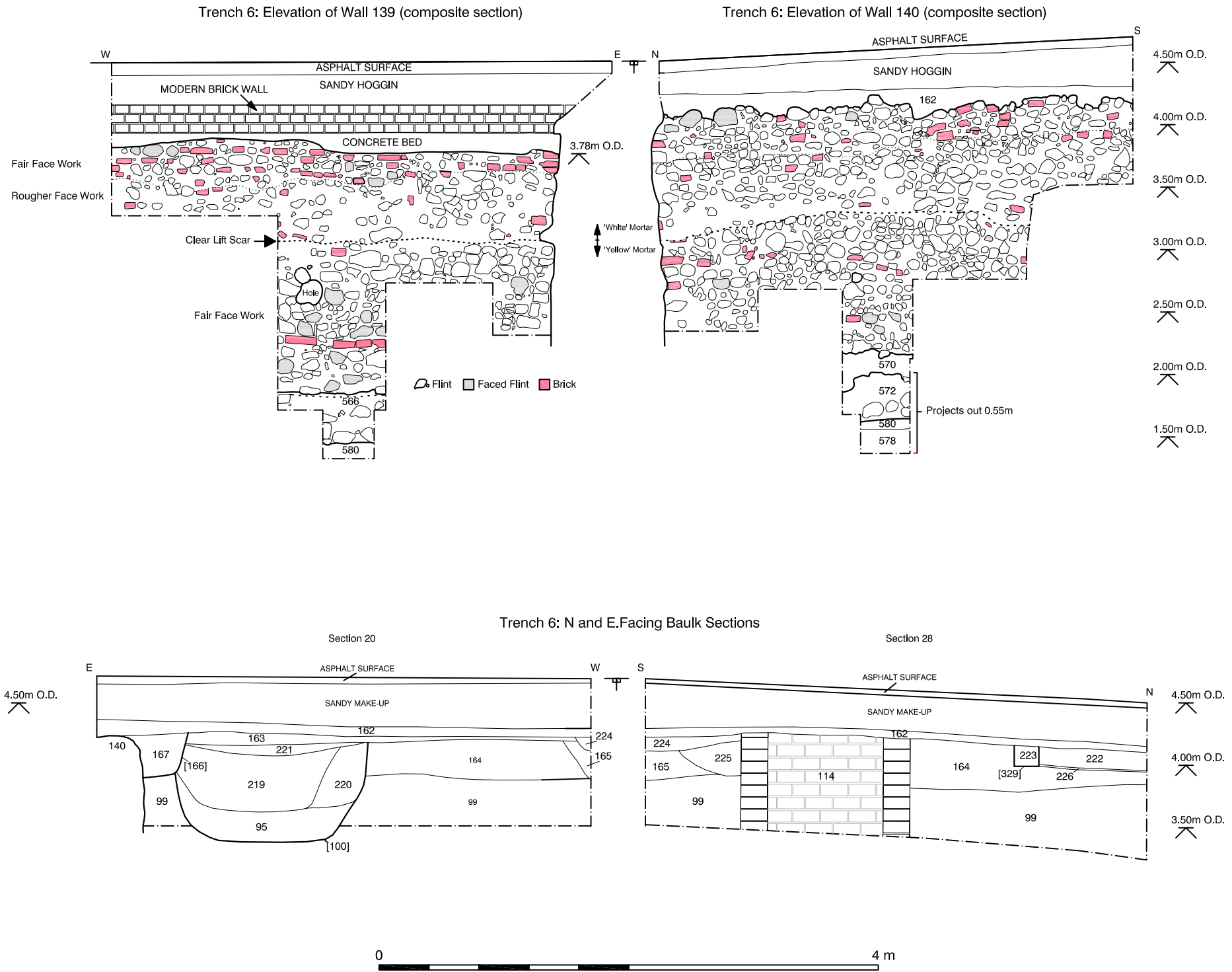


Figure 27. Trench 6 sections. Scale 1:40

Trench 6

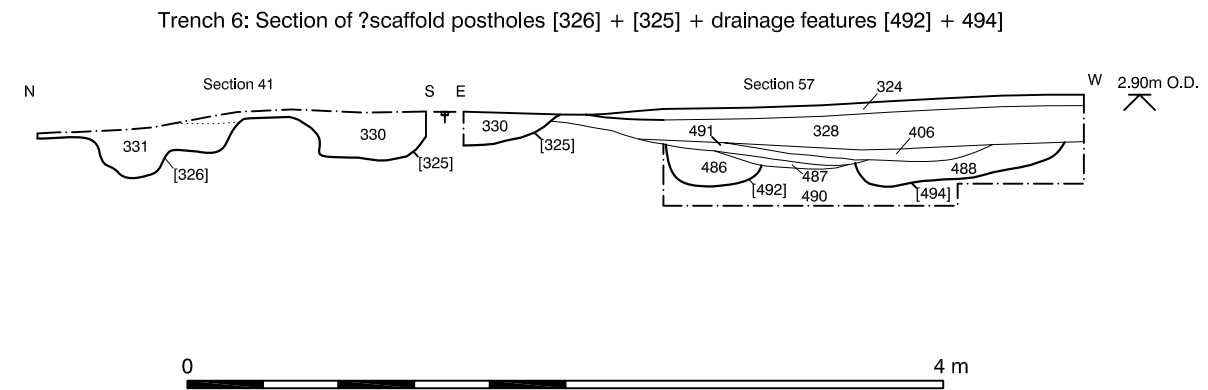
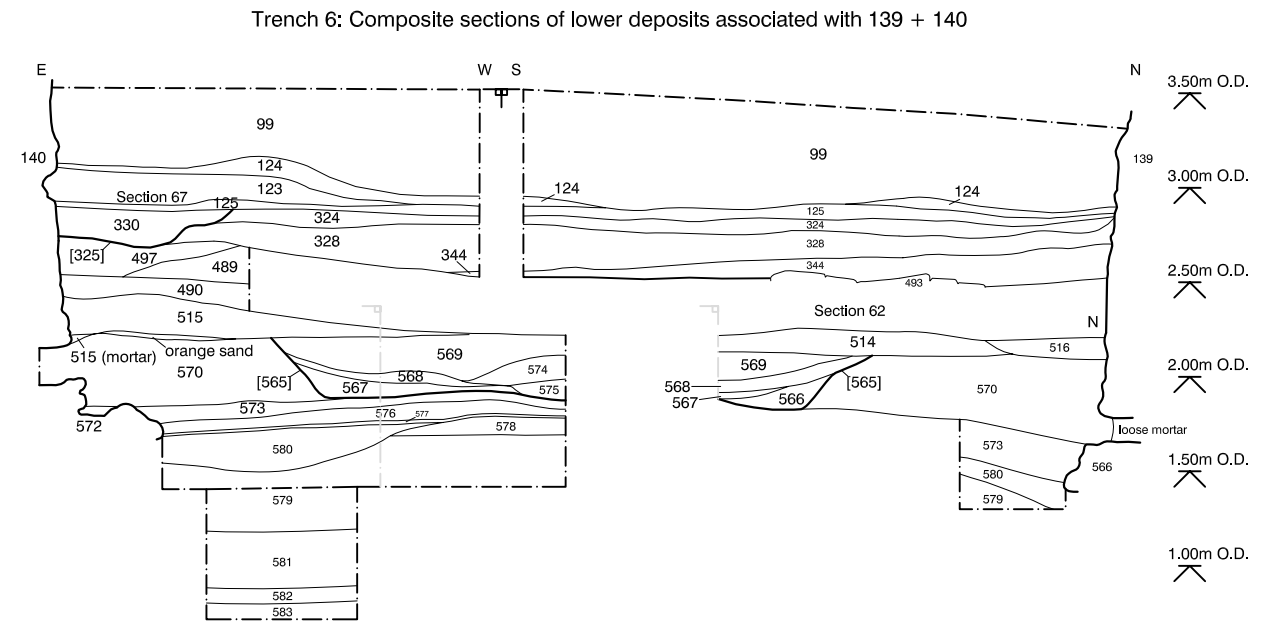
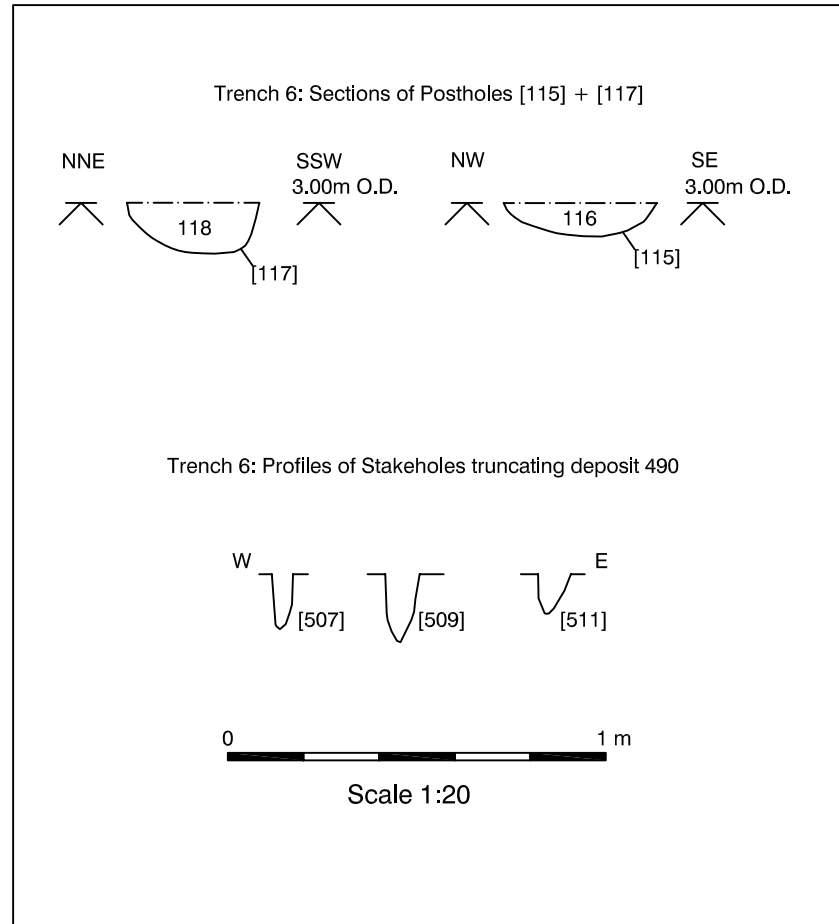


Figure 28. Trench 6 sections. Scale 1:40

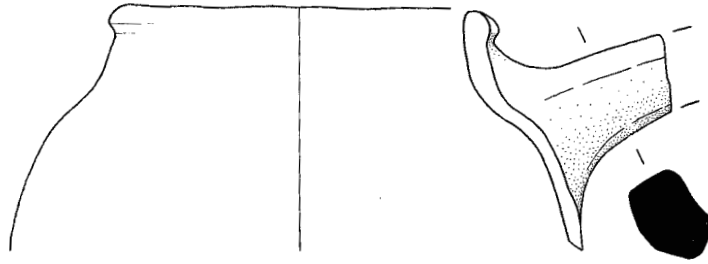


Figure 29. Context 28: Handled jar in fine micaceous fabric (?12th/13th century date). Scale 1:2

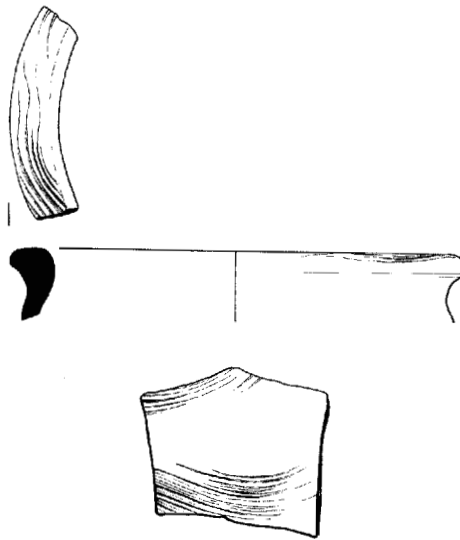


Figure 30. Context 320: Medieval Grimston Coarse Ware jar with combed lines on rim and body (11th - Mid 13th century date). Scale 1:2

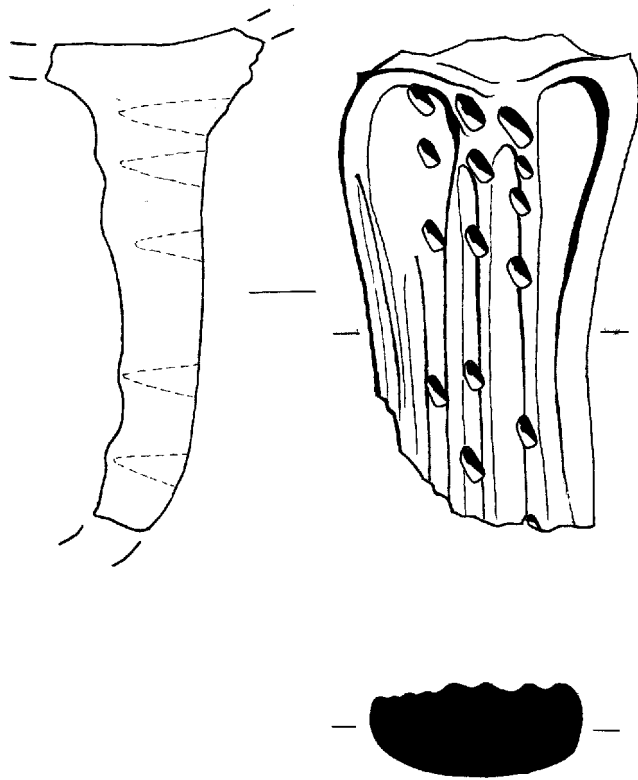


Figure 31. Context 197: Stab decorated handle of a green glazed medieval Grimston-type jug (Late 12th to 14th century date). Scale 1:2

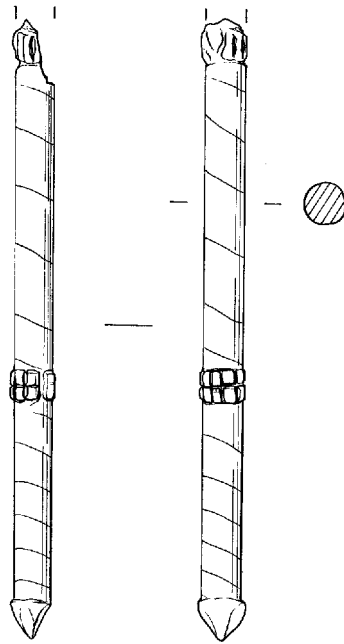


Figure 32. Late Saxon Carved Bone object (SF22)
from context (73). Scale 1:1

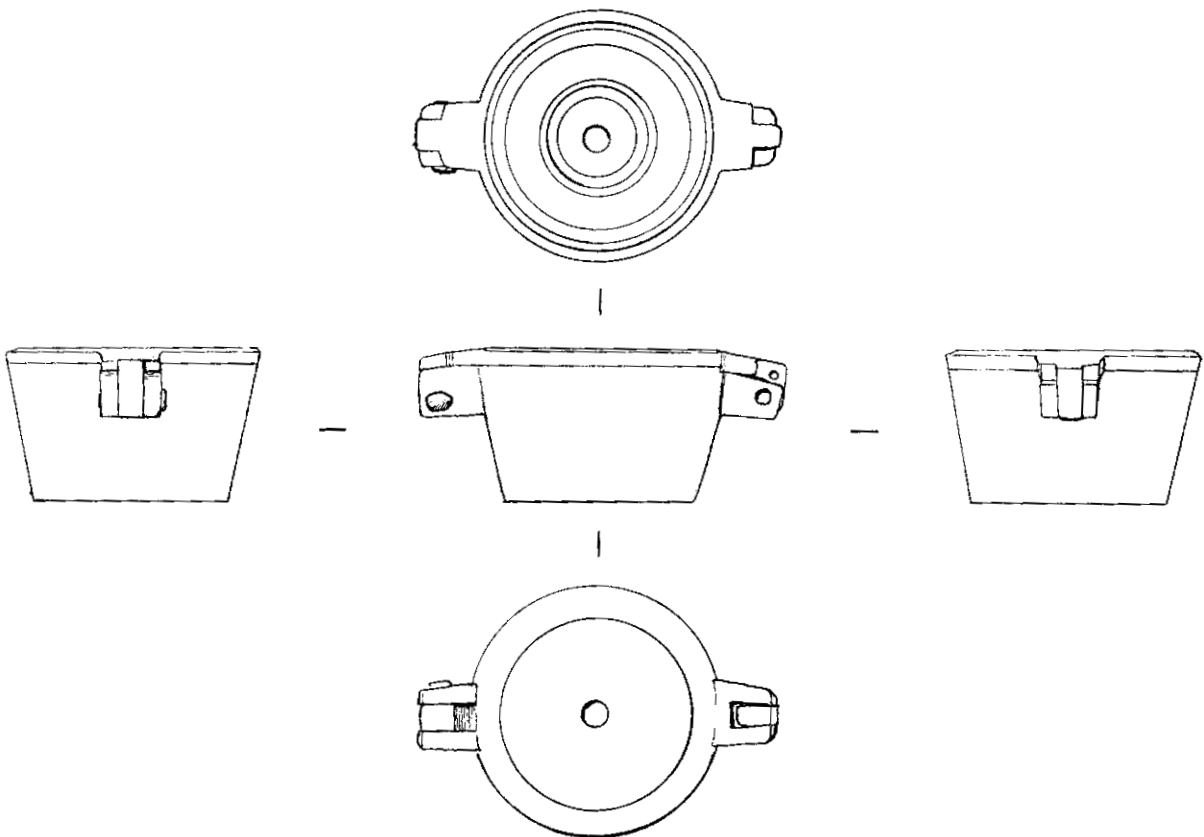


Figure 33. Late Medieval copper-alloy Cup-Weight Box (SF11)
from context (99). Scale 1:1

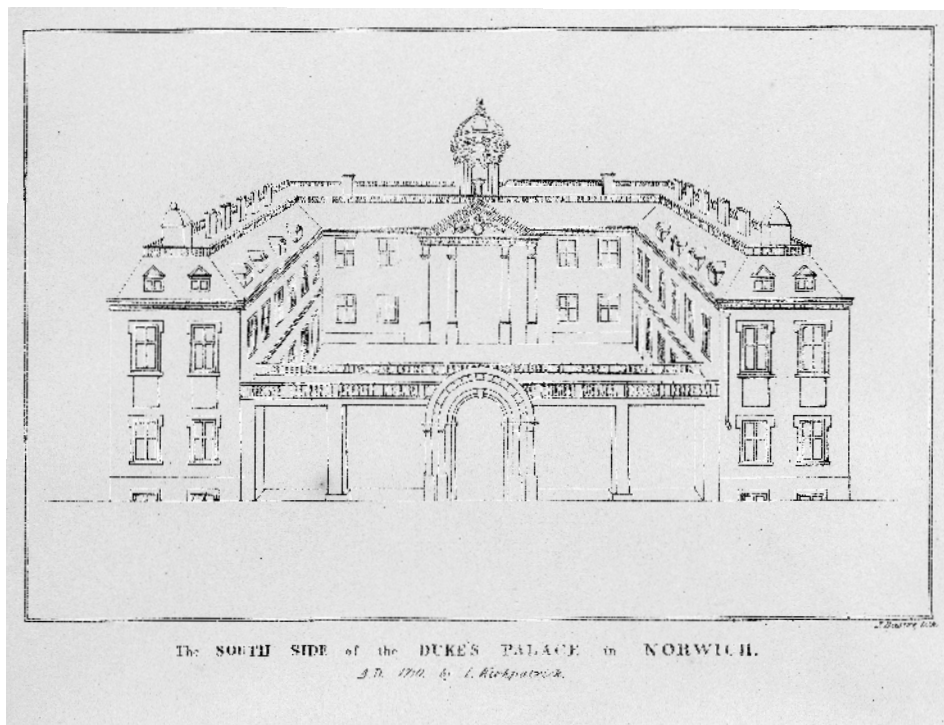


Plate 1. Dukes' Palace, south elevation

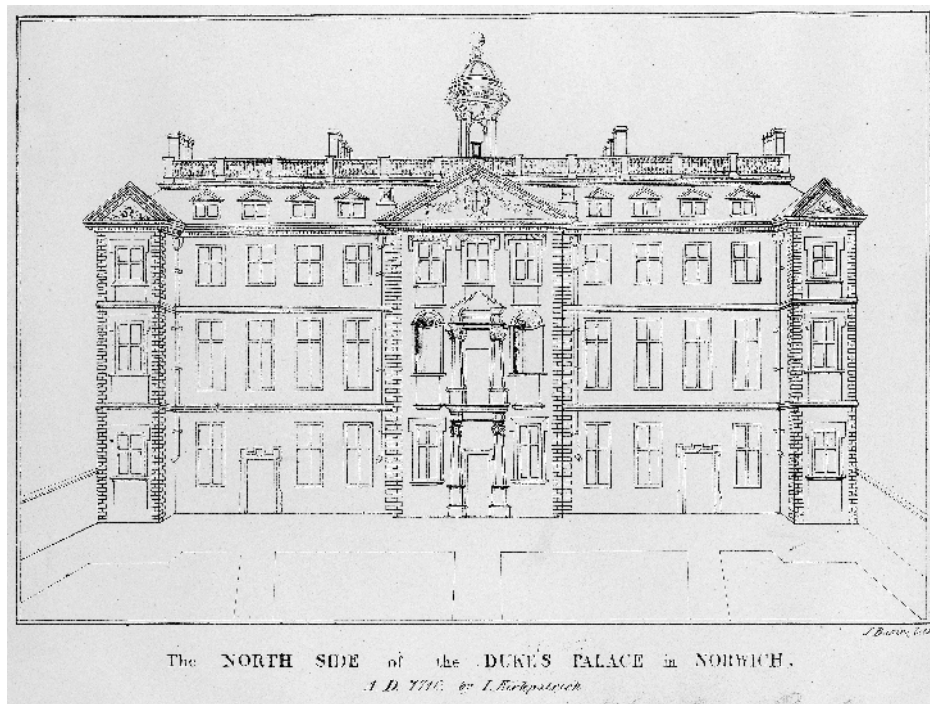


Plate 2. Dukes' Palace, north elevation



Plate 3. Trench 1, quarry infills



Plate 4. Trench 2, brick foundations



Plate 6. Trench 2, rail lines



Plate 5. Barrel room of Bullards' Brewery



Plate 7. Trench 3, Medieval pits



Plate 8. Trench 3, preserved timbers



Plate 9. Trench 4, basement



Plate 10. Trench 5, flint wall (10)



Plate 11. Trench 5, Medieval hearth/pit [212]



Plate 12. Trench 5, Medieval hearth stones



Plate 13. Trench 6, flint wall (140)



Plate 14. Trench 6, flint wall (139)



Plate 15. Trench 6, ?scaffold postholes [325]
and [326]



Plate 16. Trench 6, chalk surface (324)



Plate 17. Trench 6, mortar surface (345)



Plate 18. Trench 6, base of wall (139)
with drainage hole



Plate 19. Trench 6, buried drains (492 and 493)



Plate 20. Trench 6, base of wall (140), above earlier foundations (572)

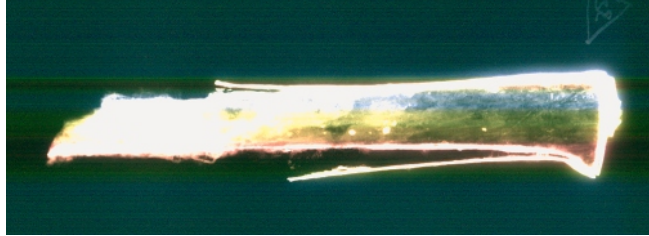


Plate 21. SF 32. Scale tang knife with remains of mineralised wooden scales. The x-ray above shows the copper-alloy strips around the sides of the handle and held at the top by the end cap