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THE BARBICAN CENTRE, YORK.

REPORT ON AN ARCHAEOLOGICAL EVALUATION.
OSA REPORT No: OSA03EV08.

OCTOBER 2003.



OSA

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Report Summary.

REPORT NO: OSA03EV08**SITE NAME:** Barbican Centre, York**COUNTY:** North Yorkshire**NATIONAL GRID REFERENCE:** SE 609 512**ON BEHALF OF:** The Barbican Venture, (York)
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1.0 Abstract.

An archaeological evaluation was undertaken at the behest of FPD Savills Property Consultants, on behalf of The Barbican Venture (York), around the Barbican Leisure Centre, York, from the 7th July to 26th September 2003. This work was undertaken in car parks, a coach park and hard and soft landscaped areas, in advance of potential redevelopment. An archaeological evaluation was necessary in order to ascertain the impact of any such development on underlying archaeological deposits and features. A total of thirteen evaluation trenches were excavated.

All but one of the trenches encountered the natural subsoil, which lay between 0.30m and 2.20m below the modern surface. Over large areas of the site 19th and 20th century truncation had removed all archaeological deposits down to the natural. This was especially the case across the eastern half of the site. However, archaeological remains were encountered in some areas, indicating a range of periods of activity.

Archaeological remains of Roman date were found within the west and southwest parts of the site. These included a number of linear ditches, occasional pits and evidence for a cemetery, in the form of at least one inhumation burial. The evaluation did not encounter any evidence for Anglian or Anglo-Scandinavian activity.

A variety of medieval activities were identified during the evaluation. Close to the western boundary edge of the site a series of foundations and robber trenches representing the lost medieval church of All Saints, Fishergate were discovered. This parish was united with that of St Lawrence in 1585 and by the early 17th century the church appears to have been so heavily robbed that it was not included on John Speed's map of the city. Little of the church was excavated but there were at least three phases of construction present. The graveyard associated with this church was also examined and was shown to contain a large number of intercutting inhumations.

To the south of the church, within the Kent Street coach park, a number of medieval pits were found cutting into the natural clay. Although they appear to have been utilised for domestic refuse disposal during their backfilling at least some of these were probably originally dug for clay extraction. Close to the eastern boundary of the site a layer of medieval ploughsoil had survived the 19th century truncation. This sealed a small number of medieval features, in the form of ditches and shallow pits.

The construction of the Cattle Market on the site in 1827 has had a major impact upon the survival of earlier archaeological deposits. Over large areas of the north and east parts of the site the Cattle Market had removed all archaeological layers down to the surface of the natural clay, with only features cut into this remaining. The demolition of the Cattle Market and construction of the Swimming Baths and Barbican Centre in the 1970's and 1980's have all added to the degree of truncation to the earlier archaeological remains. Even where the truncation has been less severe, such as the area of the church and graveyard, the 19th

century concrete floors directly overlay medieval deposits, suggesting that all layers formed during the intervening post-medieval period have been stripped away.

The evaluation has shown that the potential for archaeological survival across the site varies a great deal. However, significant remains of medieval and Roman date survive in certain areas. Any decision regarding the impact of the proposed development on the archaeological remains lies with the City of York Council. It is the opinion of the author that the remains are not considered to be of sufficient importance to preclude development within the site.

However, the remains require the formulation of a programme of archaeological mitigation. This mitigation programme is likely to combine selective preservation in-situ with preservation by record. Preservation by record will involve further archaeological fieldwork, either prior to or during development. The scale of this further fieldwork will be dependant upon the details of the below ground impact of the proposed development, but is likely to include full scale excavation of some areas, together with a lower level of watching brief recording elsewhere.



Figure 1. Site Location (NGR SE 609 512).

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2.0 Site Location, Geology, Topography and Land Use.

The site considered in this report lies immediately to the south of the historic core of the City of York and is centred at National Grid Reference SE 6090 5120 (Figure 1). The site consists of the Barbican Leisure Centre and Swimming Pool, associated car parks and soft landscaped areas, together with the public two-storey car park and coach park to the south of this. The evaluation was conducted within the Barbican Centre car parks and landscaping and the coach park, but not within the Kent Street car park. The site is bounded by Paragon Street to the north, Barbican Road and Cemetery Road to the east, residential and commercial properties to the south and a combination of Fawcett Street and the recently redeveloped City Arms Sports Club to the west. The site appears broadly level, but actually slopes gently down from east to west, between approximately 14.50m and 13.00m AOD. From the available information on the Geological Survey of England and Wales map (No. 63) the site is situated upon drift geology comprising Warp and Lacustrine Clay.

3.0 Archaeological Background.

3.1 *Introduction.*

The site lies immediately to the south of the medieval city walls in an area which has been the subject of several previous archaeological investigations over the last thirty years, and earlier observations of archaeological significance. A number of the investigations have been undertaken within the boundaries of the site itself, which has provided a fairly detailed picture of the nature of anticipated archaeological remains. These were principally undertaken prior to the construction of the Barbican Swimming Baths in 1973 and in advance of the construction of the Barbican Leisure Centre in 1987 and 1988 (see Figure 2).

3.2 *Pre-Roman.*

None of the previous investigations in the vicinity of the site have produced evidence for pre-Roman activity. However, the site lies close to the edge of the York moraine, which would have provided a natural route-way across the Vale at the confluence of the Rivers Foss and Ouse to the west. Prehistoric activity associated with the moraine, predominantly indicated by isolated finds, has previously been summarised, (see Hall, 1996, Figs 13 and 14).

3.3 *Roman.*

The site lies slightly less than 1km to the south east of the Roman fortress and approximately 0.5km to the east of the *colonia* (although in reality the barrier formed by the River Ouse would have made the latter less accessible to the site than the former). The Roman archaeology of this area of York is typical of extra-mural areas, containing evidence for agricultural, industrial, and funerary activities.

Evidence for agricultural landuse of this period frequently takes the form of field boundary ditches. During the 1973 excavation, prior to the construction of the swimming pool, two ditches, running approximately west-northwest to east-southeast were excavated. These were cut directly into the underlying natural clay and contained pottery of late 1st to early 2nd century date (Brinklow and Redmond 1986). More ditches were found during the evaluation undertaken during the late 1980's, prior to the construction of the Barbican Centre (YAT 1988.27, Trenches 10, 15 and 19, all located towards the western boundary of the site), and subsequent excavation (1988.27, Trench 20).

This area of Roman York also contains evidence for industrial activity. One of the activities carried out was the quarrying of natural clay, as evidenced by the presence of large pits (1988.27, Trenches 20 and 21). Further to the east, behind the junction of Foss Islands Road and Lawrence Street, similar large pits have been found, together with pottery wasters suggesting that at least some of the clay was being extracted to supply a pottery industry in this area (Jimmy's Fish Bar, YAT 1989.8).

Observations over the last century indicate that parts of the site contain evidence for Roman burials. A Roman cremation cemetery was discovered during the 19th century construction of

Escrick Street and Winterscale Street to the south of the site. Further evidence for this cemetery was found within the Kent Street coach park in the form of two truncated cremation burials (1988.27, Trench 13). As these cremations were only found within the southernmost of the trenches excavated it has been suggested that the cemetery only extended a short distance into the southern edge of the site (Brinklow, 1988).

3.4 *Anglian and Anglo-Scandinavian.*

The site lies a fairly short distance to the northeast of the major, excavated, Anglian, settlement of Eoforwic. This excavation revealed buildings, roads and evidence for trade and manufacturing industries, including glass working, bone working and metal working. Within the site itself the excavations undertaken prior to construction of the swimming baths (1973.12) recovered a number of Anglian finds including 8th century coins and a bronze cross brooch of similar date. Further finds of this date were found during the 1988 evaluation, including a copper alloy strap end and fragments of bone combs (Brinklow, 1988), but the only feature of this date was a single deep pit (in Trench 10 on the west side of the site). The subsequent excavation (of Trenches 20 and 21) found no additional Anglian features on the site although a single coin was recovered (Pearson 1988).

Anglo-Scandinavian activity has been found within the vicinity of the site, although much of this has been concentrated along Walmgate and Lawrence Street. This has taken the form of domestic occupation and includes timber buildings, pits and ditches. Much less evidence of this date has been found within the site itself. Despite the various phases of excavation and evaluation undertaken over the past thirty years no substantial evidence for the Anglo-Scandinavian period has been found on the site. The OS map of Viking and Medieval York (1988) suggests that the church of All Saints Fishergate (see below) may have had a pre-Conquest foundation.

3.5 *Medieval.*

The construction of the city defences in the Norman period would have dominated the northern side of the site and fossilised the extra-mural status of the area. Several of the investigations undertaken on the site have encountered remains of the medieval period. During the 1988 excavation (Trench 20) up to 0.80m depth of homogenous ploughsoil was recorded. This had been built up over a prolonged period but had been interrupted by the laying of a compacted pebble surface in the 11th or 12th century. A large dump of bog ore found associated with this surface, and a high density of fragments of metallic slag, indicated that metalworking had been taking place (Pearson 1988).

Further to the east the 1973 excavation also revealed evidence for medieval activity on the site. This took the form of 13th century timber structures and a well, raising the suggestion that this had been a well-house. None of these structures continued beyond the mid 13th century and this area appears to have been predominantly open ground after this date.

The site has traditionally been identified as the location of the church of All Saints, Fishergate. This is marked on the 1st Edition Ordnance Survey map of 1852 as being in the centre of the

Cattle Market. Relatively little is known about this church, and, as indicated above, its foundation date is uncertain. The parish was however, known to have been united with that of St Lawrence in 1585. The evaluation of 1988 encountered several medieval burials in the southwest part of the site, close to the junction of Kent Street and Fawcett Street (Trenches 17, 18 and 19). These were identified as being part of the graveyard associated with All Saints church, although no evidence for the church itself was found. No burials were found in Trenches 15 and 16 to the north of this area, which coupled with the discovery of an east-west aligned fence, has been taken to indicate that the northern boundary of the graveyard lay within this area.

3.6 *Post-medieval.*

The character of the site in the early post-medieval period is illustrated on the John Speed map of 1611. An extra-mural road runs to the north of the site between Walmgate Bar and the Castle Mills area. A short length of road extends from this to the south, from Fishergate Bar. At the end of this road, on the east side an unknown building is shown, and further to the south are a series of Windmills. No other signs of occupation are evident. This open area continued through most of the post-medieval period, clearly being shown on the Benedict Horsley map of 1694, and the northern part of the site is similarly shown on the 1748 map by John Cossins.

The most dramatic change to the character of this area came in the early 19th century, with the construction, in 1827, of the Cattle Market. The 1st Edition Ordnance Survey map of 1852 shows the Cattle Market filling much of the land between Paragon Street and Kent Street (still known as part of Heslington Road at the time). The eastern area of the site, adjacent to Barbican Road, appears to be undeveloped open ground at this date. To the south of Kent Street a series of gardens and orchards are clearly visible. During the 19th and 20th centuries the Cattle Market expanded to cover all of the area between Barbican Road, Paragon Street, Fawcett Street (with the exception of The City Arms Inn) and Kent Street, and was even extended to cover the area immediately adjacent to the City Walls to the north of Paragon Street. To the south of Kent Street the area remained open ground, either as a recreation ground or later as a car park.

The impact of the Cattle Market construction was especially notable during the 1988 excavation. Across much of the site (Trench 21) the foundations of the Cattle Market had truncated all earlier deposits down to the surface of the natural clay, with only cut features surviving.

4.0 Methodology.

The overburden was removed by a JCB excavator fitted with a toothless bucket down to the level of the first visible archaeological horizon. The exposed surfaces were then cleaned by hand in order to detect any archaeological features revealed through textural or colour changes in the deposits. Once this had been completed, sections were hand excavated through the archaeological features that had been identified cutting the natural deposits, or, in cases where intact archaeological stratigraphy was encountered, limited areas were selected for full excavation down to the surface of natural.

Standard *On-Site Archaeology* techniques were followed throughout the excavation. This involved the completion of a context sheet for each deposit or cut encountered, along with plans and/or sections drawn to scale. Heights above Ordnance Datum (AOD) were calculated by taking levels from a Temporary Benchmark (TBM) which was then tied in with an existing Ordnance Survey benchmark (15.14m AOD on the south side of Kent Street). A photographic record of the deposits and features was also maintained.

As the site had been the subject of previous programmes of archaeological evaluation and excavation the trenches to be excavated in this current phase of works were positioned to further enhance understanding of the site, and in certain instances to attempt to answer specific questions (Figure 2). This had, to some extent, to be influenced by the practical requirements for the continued use of the site throughout the duration of the evaluation as a major leisure facility.

Trenches 1 and 2 were located along the northern side of the bowling green as it was not possible to excavate trenches within this. Trenches 3 and 4 were located to assess the degree of archaeological survival along the landscaped areas between the Barbican Centre car park and Barbican Road. The nature and date of the large bank, which was assumed to be of modern date, would be determined in Trench 3. Trenches 5, and 7 were located to determine the degree of archaeological survival beneath the Barbican Centre car park, whilst Trench 6 aimed to assess the severity of truncation caused by the construction of the swimming pool. Trench 8 and 9 were located to avoid a possibly post-medieval boundary (see below) whilst assessing the extent, date, and nature of the Roman cemetery represented by the two truncated cremations found in YAT evaluation Trench 13. Trench 10 was located towards the Kent Street side of the coach park to assess the suggestion that the series of ditches and drains located in the YAT evaluation 1988 Trench 14 reflect a major post-medieval and possibly earlier boundary mirrored by the line of this street (and Heslington Road to the east). Trench 11 was positioned to assess whether the graveyard (see below) continued to the east of YAT 1988 Trench 18. Trenches 12/13 were located to investigate the nature of the graveyard of All Saints Fishergate. The YAT evaluation in 1988 located burials in the three trenches located in this area and recently further human remains have been found in service trenches in this area. These trenches were to assess the extent, density, date, preservation and degree of disturbance of the graveyard in this raised car park area. Additionally the reason for the raising of the car park (i.e. is it purely modern landscaping, or survival of historic stratigraphy which has been removed elsewhere) was to be identified.

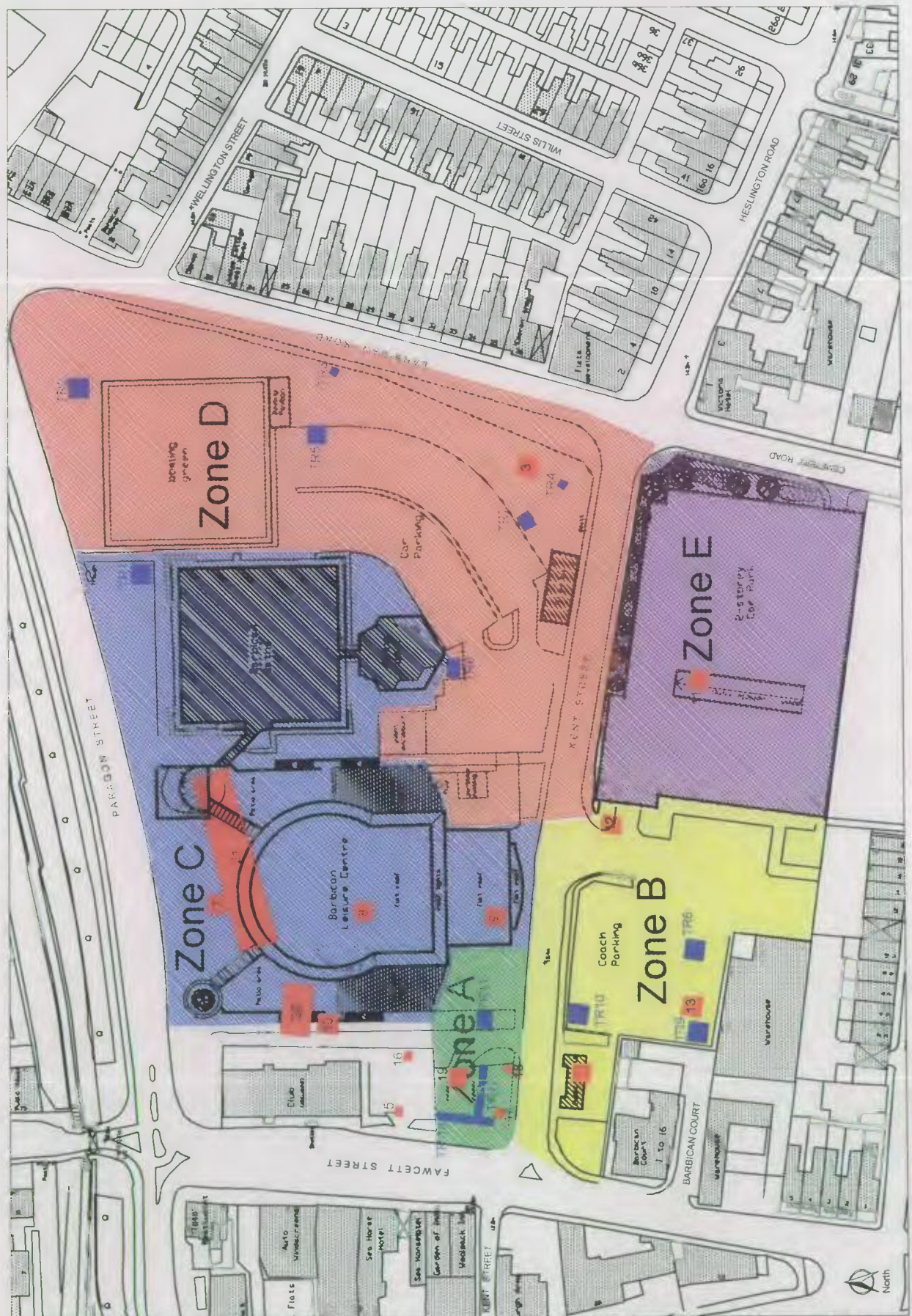


Figure 2. Trench location plan, YAT trenches shown in red, OSA trenches shown in blue. (Not to scale).

5.0 Results.

5.1 Trench 1 (Figures 3 and 4).

This trench was located on a grassed area to the north of the Barbican Swimming Baths, immediately to the west of the Bowling Green. It was initially proposed to be 5m x 5m square, but due to the presence of an electric cable it was reduced to 5m x 4.5m.

The natural (107), a compact reddish yellow clay with patches of light brownish yellow clay sand and occasional pebbles and cobbles, was encountered at a depth of approximately 0.75m below the modern surface (12.91 – 12.99m AOD).

The natural was cut by two large pits [104] and [105] which both contained 20th century rubble and recent metal. All other deposits and features encountered in this trench were of recent date, either relating to the 19th century cattle market or subsequent landscaping. A small number of sherds of Roman pottery were collected during the machine excavation of this trench and were allocated the context number (100).

5.2 Trench 2 (Figures 5 and 6).

This trench was located on a grassed area to the north of the Bowling Green, and was 5m x 5m square.

The natural (213), ranged from pale yellow sand, to bright orange sandy clay and mid reddish brown clay with occasional pebbles. This was encountered at a depth of 0.90m to 1.00m below the modern surface (13.28 – 13.38m AOD).

The natural was cut by a series of sub-rectangular [210 and 212] and oval [204] pits and a single shallow trench [207]. The fills of these contained frequent brick and concrete rubble are all likely to represent the robbed out foundations of elements of the 19th century cattle market.

The natural and robbing features were sealed by a compacted layer (208) containing slabs of concrete and brick, which appears to have been formed during the demolition of the cattle market. The remaining depth of the trench was filled with modern landscaping deposits. A modern service trench ran across the trench from northwest to southeast.

5.3 Trench 3 (Figures 7 and 8).

This trench was located on a grassed area to the east of the Barbican Swimming Baths car park, immediately to the southeast of the Bowling Green, close to Barbican Road, and was 2m x 2m square.

The natural (304), a firm yellowish red sandy clay with occasional pebbles and cobbles, was encountered at a depth of approximately 1.45m below the modern surface (13.40m AOD).

The natural was cut by a substantial north-south orientated ditch [305], with moderately sloping sides and an apparently flat base (Plate 4). Only the west edge lay within the limits of

the trench, so the ditch's full width could not be ascertained, but it was a minimum of 1.50m wide and 1.00m deep and would therefore have formed a significant boundary. The single fill (308) contained a sherd of Roman pottery, together with fragments dated to the late 11th century or later and a small assemblage of undiagnostic CBM (ceramic building material). The ditch was sealed by a homogenous deposit of grey brown sandy silt (301), approximately 0.50m deep, which may represent a ploughsoil.

The ploughsoil was cut by a service trench [306] containing a heavily corroded iron pipe and pottery dated to the late 18th century or later was retrieved from the backfill. A shallow pit or posthole of similar date was observed in the western section of the trench. All the remaining deposits in this trench were very recent dumps to form the modern landscaping.

5.4 Trench 4 (Figure 9).

This trench was located on a grassed area in the southeast corner of the site, 8m to the north of Kent Street and 15m to the west of Barbican Road, and was 2m x 2m square.

The natural (404), a firm light brownish yellow clay with occasional pebbles and cobbles, was encountered at a depth of approximately 0.65m below the modern surface (14.10m AOD).

The natural was sealed by a 0.35m thick layer of compact dark grey, sandy clay with frequent brick and concrete rubble (403). In places pieces of rubble had been pressed into the surface of the natural clay. This rubble deposit was sealed by a 0.10m thick layer of light greyish yellow sandy clay (402), followed by the current, mid brown silty clay topsoil (401). The top of the topsoil was found at a level of 14.75m AOD. A small number of sherds of Roman pottery were collected during the machine excavation of this trench and were allocated the context number (400).

5.5 Trench 5 (Figures 10 and 11).

This trench was located in the eastern part of the Barbican Centre car park to the south of the Bowling Green, and was approximately 4m x 4m square.

The natural (517), a firm light brownish yellow clay with occasional pebbles and cobbles, was encountered at a depth of approximately 1.10m below the modern surface (13.20m AOD).

The surface of the natural was cut by a number of shallow features. These included an isolated, shallow, pit [516] in the northeast corner, the fill of which (515) only contained undiagnostic CBM, and a broad, shallow east-west orientated ditch [507] which ran along the southern edge of the trench. This ditch was a minimum of 1.10m wide and 0.25m deep and the fill (506) contained several sherds of pottery dating to the late 12th/early 13th century.

The surface of the ditch fill was cut by two small shallow pits [509] and [511] with similar dark grey brown silty clay fills (508) and (510). One of these fills (508) contained occasional fragments of undiagnostic CBM and a single sherd of late 12th/early 13th century pottery.

The natural and cut features were sealed by a 0.40m thick layer of homogenous grey brown sandy silt (505), similar to that found in Trench 3 approximately 18m to the east.

All the remaining deposits recorded in this trench were of recent date, associated with the construction of the modern car park surface.

5.6 Trench 6 (Figure 12).

This trench was located on an area of paving between the Barbican Centre car park and the teaching pool, and was approximately 4.8m east-west x 3m north-south.

The natural (610-614) was extremely mixed, comprising bands of firm pinkish brown clay, grey brown sand, and reddish brown sand, and was encountered at a depth of approximately 0.65m below the modern surface (12.90m AOD).

The natural was cut by three modern service trenches, which were sealed by a 0.48m thick layer of crushed stone hardcore make-up for the modern paved surface.

5.7 Trench 7 (Figure 13).

This trench was located on a grassed area to the southwest of the Barbican Centre car park, and was approximately 4m x 4m square.

The natural (709), was a pale yellow brown clay with occasional pebbles and cobbles. This was encountered at a depth of 0.30m to 0.46m below the modern surface (13.71 – 13.88m AOD).

The natural was cut by two linear features. In the eastern part of the trench was a shallow gully, [707] a maximum of 0.45m wide and 0.15m deep, which lay on a north-northwest to south-southeast alignment. The fill of this (706) contained a small number of fragments of CBM, although these were only present in the top of the feature and may have been pressed in from later, overlying layers. In the western part of the trench was a modern drain orientated approximately north south [705].

The natural and two features were sealed by a compacted layer (708) containing fragments of stone and brick, which appears to have been formed during the demolition of the cattle market. The remaining depth of the trench was filled with hardcore make-up and the modern surface.

5.8 Trench 8 (Figures 14 and 15).

This trench was located in the Kent Street coach park, towards its southern boundary, and was 5m x 5m square. A modern drain ran from east to west across the centre of the trench, which was only excavated to its full depth in the northern part.

The natural (834), a firm brownish yellow sandy clay with occasional pebbles was encountered at a depth of approximately 1.85m below the modern surface (11.93m AOD), in the northern part of the trench. The southern part of the trench was not excavated to the full depth.

The earliest feature recorded was a substantial north-south ditch [914], which was a minimum of 1.15m wide and 0.55m deep, although the base was not certainly reached. Only the eastern edge of this was found, if it is relatively symmetrical it would have originally been approximately 2.50m wide and therefore would have formed a substantial boundary. The light grey brown sandy silt fill (915) appears to have been at least partially derived from natural silting suggesting that the ditch was at least in part dug for drainage. Several sherds of pottery were recovered from this ditch fill, which were spot dated to the late 1st/2nd century. Following its complete filling this large ditch had been cut by a much less substantial ditch or gully [812] orientated southwest to northeast. This was a maximum of 0.50m wide and 0.15m deep and the fill (813) again contained late 1st/2nd century pottery (although in this instance only a single sherd was present).

The two early ditches were covered by a thin layer (0.10m) of mid grey sandy sit (802) containing occasional flecks of charcoal and CBM, together with a number of sherds of Roman pottery indicating a 3rd century date for its deposition. In the southern half of the trench a similar, apparently contemporary deposit (808) was left unexcavated. In the northern part of the trench this deposit (802) was cut by another north-south orientated ditch [811], 0.60m wide and 0.25m deep. This ditch appeared to have been deliberately backfilled when it went out of use, as the fill (801) was very mixed, including redeposited natural, together with pottery of 1st/2nd century or later. The later dating of the underlying layer (802) would suggest that this material is all residual. The northern end of the ditch had been cut by a small sub-oval feature (804), but this was not excavated as it was immediately adjacent to the edge of the trench.

In the surface of deposit (802) and (808) were a number of preserved timber stakes, which were recorded under the single context number (803). These appear to form two roughly parallel bands following an approximately northwest to southeast alignment. The majority of these were left unexcavated in the southern half of the trench. It was not clear whether these stakes were broadly contemporary with the underlying Roman deposits or were substantially later, either of medieval or post-medieval date. Two other cut features were found in the southern half of the trench, cut into the surface of (808). These were both shallow sub-circular postholes [809] and [810], 0.30m in diameter and 0.10m to 0.15m deep. Each of the fills (805 and 806) contained a single sherd of early Roman pottery, although these are presumably residual as they post-date later Roman layer (808).

These Roman features and deposits were overlain by a 0.50m thick layer of mid reddish brown sandy clay silt (831) containing occasional flecks of CBM and charcoal. This is likely to represent a medieval build-up of agricultural soil. The top of this deposit had been cut by a series of east-west aligned trenches [825 – 832] between 0.45m and 0.90m wide and 0.30m to 0.50m deep, which all contained the same mid grey brown silty clay fill (824). These are almost certainly horticultural planting trenches, and although no definite dating evidence was retrieved these are likely to be of post-medieval to early modern date. This deposit was overlain by two further layers of probable garden soil (823 and 822), which contained 19th century ceramics, followed by a succession of thinner bands of ash and clinker (819-821) which appear to have formed metallised surfaces. The remaining layers were either make-up or

surfaces for the current, or recent car park. Three very recent service trenches were cut from immediately below the most recent tarmac surface.

5.9 Trench 9 (Figures 16 and 17).

This trench was located in the southwest corner of the Kent Street coach park, and was 5m x 5m square.

The natural (912), a firm yellowish red sandy clay with occasional pebbles and cobbles, was encountered at a depth of approximately 1.65m below the modern surface (11.90m AOD).

The natural was cut and immediately overlain by a number of Roman and medieval features and deposits.

Along the northern edge of the trench were two shallow patches of light greyish brown silty sand (924) and (935) which appear to represent the base of an early (presumably Roman) soil horizon. Occasional small fragments of undiagnostic CBM were present but no datable pottery. These two deposits were cut by a very regular linear feature [922]. This was aligned north-northwest to south-southeast, with steeply sloping, straight sides down to a flat base at a depth of 0.35m. It was 0.70m wide and ran for a total length of 3.20m from the northern edge of excavation to a squared butt end to the south. The fill (921) of light grey silty sand with frequent pebbles and small cobbles contained a substantial assemblage of Roman pottery dated to the late 1st/2nd century.

To the west of this features was a much less regular, shallow feature [933] cut into the surface of the natural. This feature covered a total area of 2.80m by 1.20m but was only 0.05m to 0.12m deep, to a very irregular base. This feature may have been formed by the removal of a tree or other vegetation. The fill (934) contained a few sherds of late 3rd/4th century pottery. The western edge of this shallow feature was cut by a steep sided circular pit [920], 1.70m in diameter and 0.80m deep. There was some indication that this may have originally been lined with clay (927), but the majority of the fills (919) appear to be domestic refuse including animal bone, and included a substantial assemblage of pottery dated to the late 12th/early 13th century. The final fill of this pit was a thin layer of yellow brown clay (925), which may have been deliberately deposited as a capping over the organic fills.

The southern part of the trench also contained a number of features cut into the natural. The earliest of these [916] had been severely truncated by subsequent features, but appeared to have originally been a shallow, irregular, hollow, a maximum of 0.16m deep, in the surface of the natural. The fill (915) contained a single sherd of late 14th century pottery. This had been cut away by another shallow (0.20m deep), rectangular feature [914], a total of 3m long and at least 1.20m wide. The fill of this feature (913) contained pottery of late 12th/13th century date, although, unless the single later medieval sherd from earlier fill (915) is intrusive, this assemblage must all be residual. The two larger, shallow features along this southern edge of the trench were both cut by a shallow, undated posthole [931], 0.50m in diameter and 0.16m deep.

The natural and cut features were all overlain by a substantial thickness (0.70m) of yellowish brown silty clay (911). This contained a number of sherds of pottery indicating a late 12th/13th century date for the deposit. Only a single sherd of Roman pottery was retrieved from this deposit so it is more likely to have been dumped on the site rather than being derived from ploughing of the underlying deposits. This deposit was overlain by a series of thinner layers containing modern ceramic and brick, including compacted surfaces, up to the modern tarmac of the coach park.

5.10 Trench 10 (Figures 18 and 19).

This trench was located in the northwest corner of the Kent Street coach park, and was 5m east-west by 4m north-south at the modern ground surface, stepped in to a smaller area of 3m by 2.3m due to the depth.

The natural (1036), a firm brownish yellow sandy clay, was encountered at a depth of approximately 2.20m below the modern surface (11.17m AOD), although this had been cut into by a number of features and very little of the original surface remained.

The earliest feature recorded was a narrow gully, [1033] orientated approximately north-northwest to south-southeast. This was a minimum of 0.90m long, 0.30m wide and 0.25m deep, with a U-shaped profile. The fill (1022) a light yellow brown sandy silt, contained a single sherd of late 1st/2nd century pottery. This Roman gully was truncated to the east, west and south by later pits. Those to the south and east [1035] and [1024] were predominantly beyond the excavated area and the small parts excavated did not contain any datable artefacts. The similarity of their fills with the more complete features to the west suggests that they are likely to be medieval.

To the west the Roman gully was cut by the edge of a steep sided rectilinear feature [1019]. This was 0.94m wide, 1.10m deep and at least 1.10m long. As it extended beyond the edge of the excavated area to both north and south it is uncertain whether this feature was a ditch or part of a pit. The base was very irregular and included recognisable spade marks. Immediately to the west of this feature was a second of similar character [1021]. This was slightly wider, at least 1.20m but shallower, only 0.70m at its deepest part. Once again the sides were very steep and the base included a number of spade marks. The fills of these two features (1018) and (1020) were both soft, dark grey brown clay silt, containing animal bone, CBM and pottery including residual Roman material and late medieval. That from (1018) was dated to the late 14th century or later, whilst (1020) included material from the late 15th / 16th century. As these features clearly respect each other's positions they are likely to be contemporary. They may have originally been dug to extract the natural clay, and subsequently been used for refuse disposal.

The cut features were overlain by a layer of yellow brown silty clay (1029), which in places appeared to have sunk slightly into the tops of the softer more organic fills (1026) and (1027). This may have been laid down in an attempt to seal the refuse fills. The clay was then overlain by a 0.30m thick layer containing frequent crushed brick rubble (1028) followed by a thicker (0.50m) layer of homogenous mid brown clay silt (1012) which probably formed over a

prolonged period. This was then overlain by a darker brown clay silt (1011) probable garden soil. This deposit was overlain by a series of thinner layers containing modern ceramic and brick, including compacted surfaces, up to the modern tarmac of the coach park.

5.11 Trench 11 (Figures 20 and 21).

This trench was located in a pavement, between the loading bay to the southwest of the Barbican Centre and a cycle path, and was approximately 4m x 4m square.

The natural was not encountered in this trench, which was only excavated to a maximum depth of 0.70m below the modern surface (12.47m AOD).

The earliest feature recorded was a truncated, but clearly in-situ inhumation burial (1119). The upper part of the skeleton had been cut away by a modern drain and the lower legs and feet were beyond the edge of the area excavated at this level. This burial was not excavated, but left in-situ. The clearly in-situ burial was sealed by a sequence of graveyard soils (1113, 114, 1116-1118), which contained significant quantities of disarticulated human bone. These included a total of six skulls located against the eastern edge of excavation, the highest of which was less than 0.40m below the modern pavement (at 12.81m AOD). These skulls were all left in-situ but it remains unclear whether they represent undisturbed burials or disarticulated remains within the graveyard soil. The upper surface of the graveyard soils (1112 and 1113) was found at a height of approximately 12.90m AOD (0.30m below the modern surface). Although earlier pottery was present in the graveyard soils the majority recovered from the uppermost deposits suggested a late 14th century date.

The surface of the graveyard soils had been cut by two sub-rectangular pits [1109] and [1111], the fills of which contained frequent fragments of brick concrete and mortar rubble (1108 and 1110). These are likely to be robbed out foundations relating to the 19th century cattle market. A modern concrete encased drain [1107] crossed the trench from southeast to northwest and was sealed by modern hardcore make-up (1105) and sand bedding (1104) for the current paved surface (1101). At some recent time the paving had been lifted to insert a ducted electric cable [1103].

5.12 Trench 12/13 (Figures 22 to 26).

These trenches were located in the Barbican Centre staff car park, at the junction of Kent Street and Fawcett Street. Evaluation in this area comprised two trenches, one (Trench 12) was aligned north-south parallel with Fawcett Street, within the western part of the car park. This was 14.5m long and 2m wide. The second (Trench 13), joined Trench 12 approximately 3m from its south end, and continued to the east, at right angles, parallel with Kent Street, for 15m. (Although these trenches were nominally separated, as Trenches 12 and 13, as they were joined a single sequence of context numbers was allocated, from 1200 to 1401, throughout the trench).

Following initial mechanical excavation of modern deposits it was clear that these trenches contained a complex sequence of well-preserved archaeological deposits and structures,

including burials. Limited areas were therefore selected for full excavation down to natural, with the majority left in-situ, either for long-term preservation, or, if their removal is unavoidable, to allow a greater understanding to be achieved through open area excavation.

Natural deposits were reached in a number of places, consisting of glacial sands, gravels and silty clays. At the eastern end of Trench 13 this was found at a maximum height of 12.03m AOD, close to the junction of Trenches 12 and 13 this was at a height of 12.05m AOD and in the north end of Trench 12 at 11.86m AOD. Where it was not truncated by later intrusions the natural was sealed by a thin layer of yellowish brown sandy clay silt (1326, 1328, 1352) with occasional flecks of charcoal and CBM but no other artefactual material. This deposit closely resembles the underlying natural and may represent the disturbance to its surface, possibly through horticultural or agricultural activity.

The early soil horizon was cut in a number of places by features dated to the Roman period (Figure 26). Within the northern part of Trench 12 the Roman features included an inhumation burial (1375). The grave [1376] for this burial was distinctive as it was aligned approximately east-northeast to west-southwest, with the head of the body (1375) being placed within the easternmost end (Plate 13). The majority of this burial continued beyond the eastern edge of the trench and therefore no parts of the skeleton were lifted. The grave backfill (1374) a mid yellowish brown sandy silt with frequent pebbles, was clearly derived from the underlying natural and therefore, unfortunately contained no datable finds. A similarly undated, but presumably contemporary feature [1373] was found approximately 1m to the southwest. Only a small part of one edge of this feature lay within the excavated area, so its interpretation is unclear. Although it may be a pit, it is not inconceivable that it represents the edge of another Roman grave.

These two earliest (Roman) features were both cut by a southwest – northeast aligned ditch [1371]. This was a minimum of 1.40m wide and 0.35m deep, with moderately sloping sides and a flat base. The single fill (1370) contained several sherds of pottery of late 1st/2nd century date. Immediately to the north of the ditch the earlier burial had been truncated by a shallow, sub-oval pit [1369], containing apparently domestic refuse (1368), including animal bone and pottery of late 1st/2nd century date. The fills of the pit and ditch represent the top of the Roman sequence in this area, which was found at around 12.14m AOD.

Further to the south, close to the junction between Trenches 12 and 13, the earliest deposits had been cut by another probably Roman feature [1336]. Much of this was again beyond the edge of the excavated area at this level, but the single observed edge was steep and a minimum of 0.30m deep. The fill (1335) contained pottery of late 1st/2nd century date. The top of this feature had been truncated by a later cut, so that its highest surviving edge, at 11.96m AOD is unlikely to represent the level from which it was originally dug.

Within the eastern end of Trench 13 the natural and overlying early soil horizon had not been cut by any clearly Roman features. However, one of the graves excavated in this area (1316 see below) is different from the majority excavated and may be earlier than it at first appeared.

As was noted at the beginning of this section on Trenches 12 and 13 the sequence of archaeological remains encountered in this area included a number of burials. A summary description of the stratigraphic sequence of the graves and graveyard soils is presented here, rather than a full context by context account. Due to the degree of intercutting of the burials very few of the grave cuts were recognisable prior to the skeleton being encountered. Excavation of the graveyard was initially undertaken by carefully removing shallow "spits" of material until either grave cuts or, more usually, skeletons were encountered. Where possible burials were lifted in their entirety. However, in the majority of cases parts of the bodies continued beyond the edges of excavation and partial removal was therefore necessary.

An assessment of the skeletons is presented below (see Appendix 2) but some general description of the nature of the graveyard is required here. In total 39 individual "skeletons" were recorded. A number of these were only represented by a limited number of articulated bones, with some examples being made up of as little as a single limb. This was partially caused by excavation within the constraints of a limited trench, but was also a result of intrusion by a number of modern drains and by the degree of recutting of new graves through earlier ones (see Plate 14). All of the burials were lain approximately east west, with the head towards the west end. The vast majority were in a supine position (laid on the back), with arms either extended by the sides, lain on the pelvis, or placed upon the chest as if in an attitude of prayer (see Plate 15 for a typical example).

Some notable exceptions to the normal body position were noted. The earliest excavated grave towards the eastern end of Trench 13 was that of a juvenile (1316 see above). Although placed within a fairly standard east west grave the body did not appear to be in the normal supine position. A later grave had caused fairly extensive disturbance to this burial but it may have originally been lain on the left side, with slightly flexed legs and with both arms bent at the elbow, with the hands towards the north edge of the grave. The grave fill (1314) contained a number of sherds of pottery, all of which were dated to the late 1st/2nd century, although it should be noted that many of the more standard medieval burials only contained residual Roman finds. At present it is therefore unclear whether this individual was originally part of the Roman cemetery identified elsewhere within this trench and further to the south, or was one of the earliest burials within the medieval graveyard, but had been treated in a different manner. A later burial (1293) within this area differed from the norm in the placing of the hands, which appeared to have been crossed behind the back.

Further to the west, close to the junction between the two trenches, two individuals (1299 and 1300) appeared to have been placed, one on top of the other, within a single grave cut [1310], although it is possible that a separate grave cut for the uppermost was not recognised.

Towards the north end of Trench 12 were other unusual burials. One of these (1280) had been deliberately laid face down in a normal east west grave. This was almost directly overlain by a second face-down burial (1250), which although disturbed, also appears to have been deliberately positioned face down. Immediately to the north of these two face-down burials was the burial of a young woman (1302), who had almost certainly died in child birth, her fully developed foetus being present within her pelvis (Plate 16). This was the most northerly burial

excavated in Trench 12. The area between the northern edge of the grave and the end of the trench was fully excavated and contained what appeared to be graveyard soils, which were indistinguishable from those encountered across the rest of Trenches 12 and 13. There was no evidence that burials had been disturbed or removed so burial (1302) appears to mark a real limit of burial at least for part of the life of the graveyard. The locations of the unusual face-down burials in this area may support the theory that burial (1302) marks the northern boundary of the graveyard.

The deepest graves extended into the natural and Roman deposits described above, whilst the upper most levels of graveyard soils were encountered immediately below 19th century concrete surfaces, at a maximum height of 12.80m AOD. The full depth of graveyard soils within this trench was therefore slightly less than 1m. In the areas of excavation at either end of Trench 13 and the north end of Trench 12 the graveyard soils yielded a number of sherds of pottery. Much of this material was of Roman date and reflected the 1st and 2nd century dating of the underlying Roman features. Medieval material was also found within the two trenches; in Trench 13 the latest sherds were dated to the late 12th to early 13th century, whilst the assemblage collected from the north end of Trench 12 continued through to the late 14th century.

In addition to the graveyard Trench 13 also contained structural elements and robber trenches, which almost certainly formed parts of the church associated with the graveyard. These elements were generally only recorded in plan, with very little intrusive investigation taking place (Figure 24). Detailed investigation of the character of these structural remains and their chronological development was not therefore possible. The general plan of the robber trenches suggests that the main external north wall of the church ran through the centre of Trench 13, continuing beyond both its east and west ends. Approximately half way along this trench a cobble foundation was also recorded (1379). Within the south end of Trench 12 several more structures were found; these may be either robber trenches, or in-situ cobble foundations.

One small area, at the junction of Trenches 12 and 13, had been truncated by a modern drain trench and was therefore selected for additional excavation. This revealed a well-built foundation of large cobbles set within pinkish brown clay bonding, with a layer of smaller cobbles across the top (1215) (Plate 17). Several sherds of 3rd century pottery were recovered from the clay packing, together with a single sherd dated to the late 12th century. This foundation was 0.37m deep and 0.95m wide, within a vertically sided, flat based trench [1226]. It was unclear from what level this trench had originally been dug as a later robber trench [1213] had removed the top of the cut. The robber trench fill (1205) also contained residual Roman pottery, together with a sherd of pottery dated to the late 12th to early 13th century. The robber trench was cut through the uppermost levels of graveyard soil, which in this part of the site did not contain any datable pottery later than the early 13th century.

Although only very limited investigations into the stratigraphic sequence of the church foundations and robber trenches were possible there appear to have been a minimum of three phases of the church and graveyard. The clay and cobble foundation described above (1215) clearly post-dated graves, which, although undated, conform to the character of the medieval

graveyard. This foundation is therefore very likely to represent a replacement or rebuild of an earlier church, of which, at the present time, no structural elements have been exposed. Further to the east a continuation of the robber trench had been overlain by a deposit similar to the graveyard soils (1206), which contained 12th to 13th century pottery. This had then been cut by a small cobble foundation (1379), which must represent a later (third) phase of the church.

The church structures and the associated graveyard had been cut into by a number of 19th and 20th century drains. In the majority of cases these had caused only partial truncation of the medieval sequence, frequently being responsible for the disassociation of individual burials. In the case of the manhole found at the north end of Trench 12 the degree of disturbance had been much greater, resulting in the complete removal of deposits down to the level of the natural.

The medieval sequence was directly overlain by rubble make-up and concrete surfaces associated with the 19th century Cattle Market. These had been replaced by the thick tarmac which formed the surface of the current staff car park, which sloped down from around 13.55m AOD at the north end of Trench 13, to 13.30m along the east side of Trench 12.

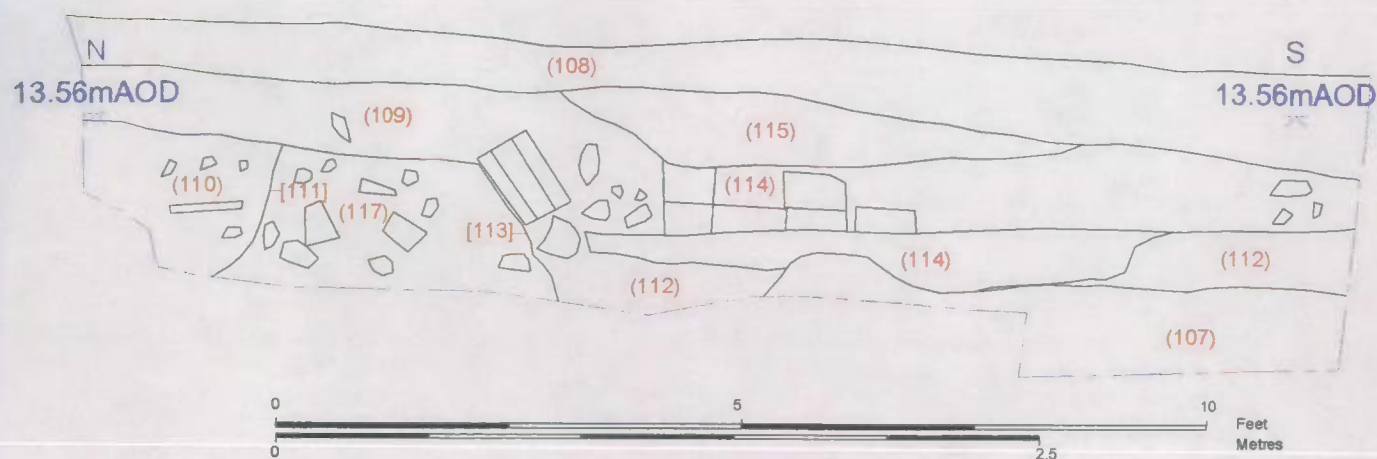


Figure 3. West facing section of Trench 1. (Scale 1:25).

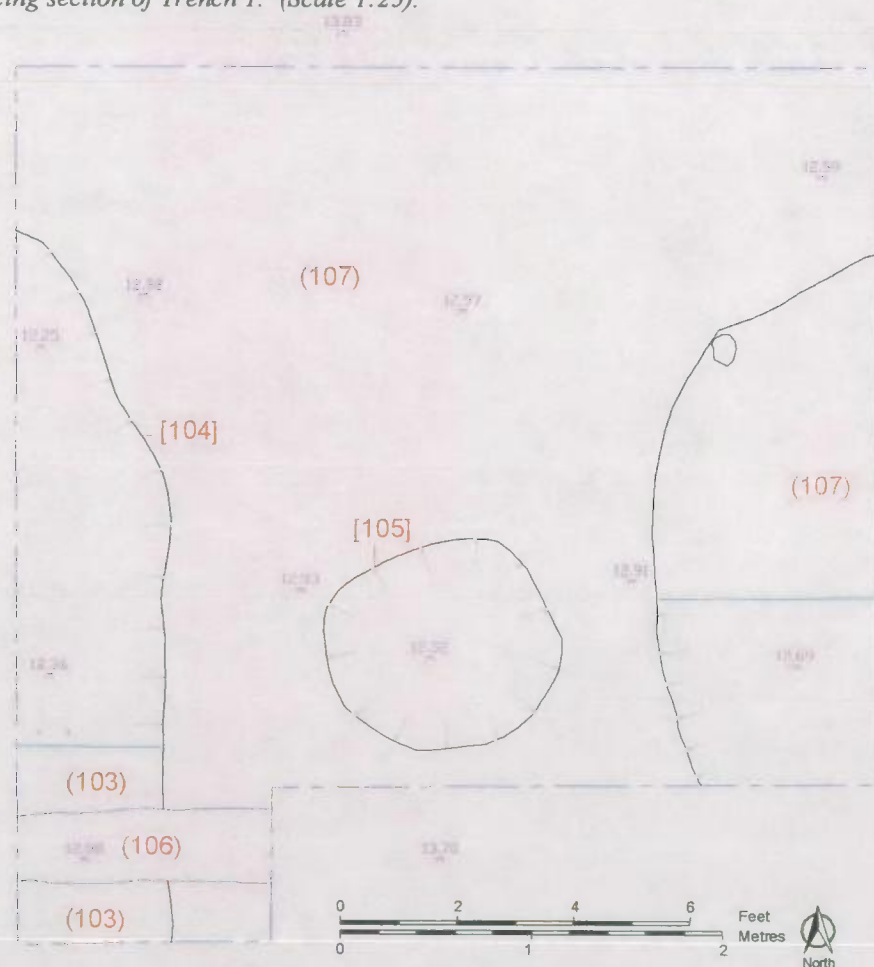


Figure 4. Trench 1 plan. (Scale 1:40).

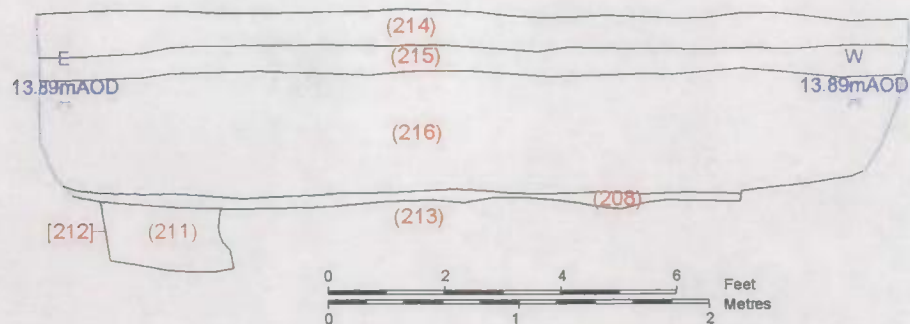


Figure 5. North facing section of Trench 2. (Scale 1:40).

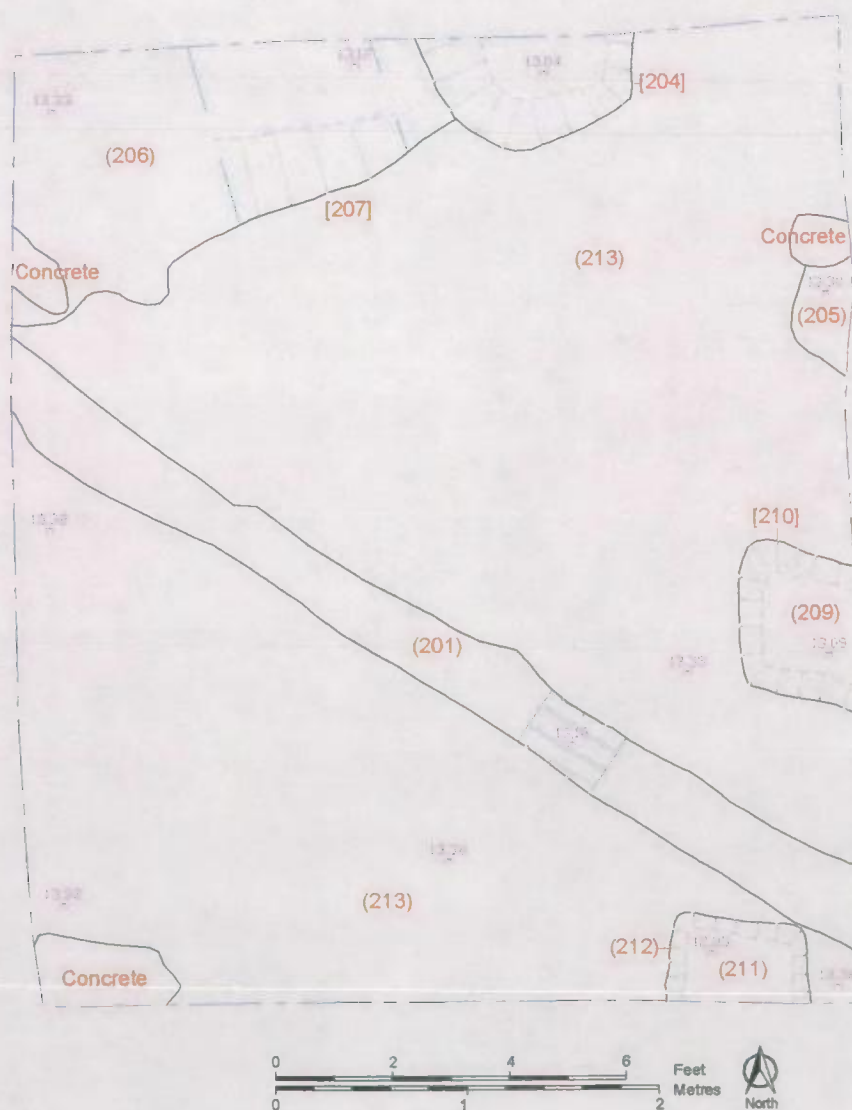


Figure 6. Trench 2 plan. (Scale 1:40).

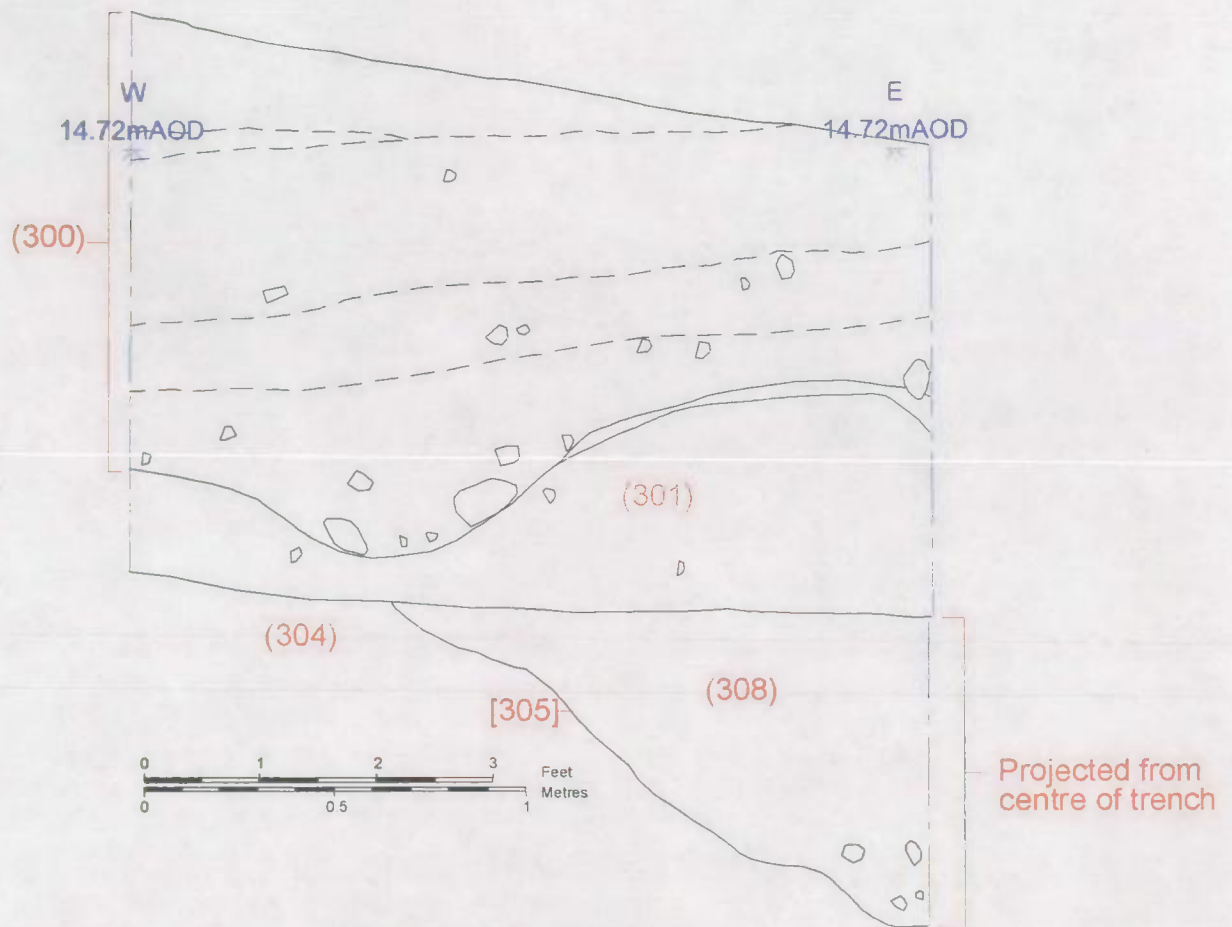


Figure 7. South facing section of Trench 3. (Scale 1:20).

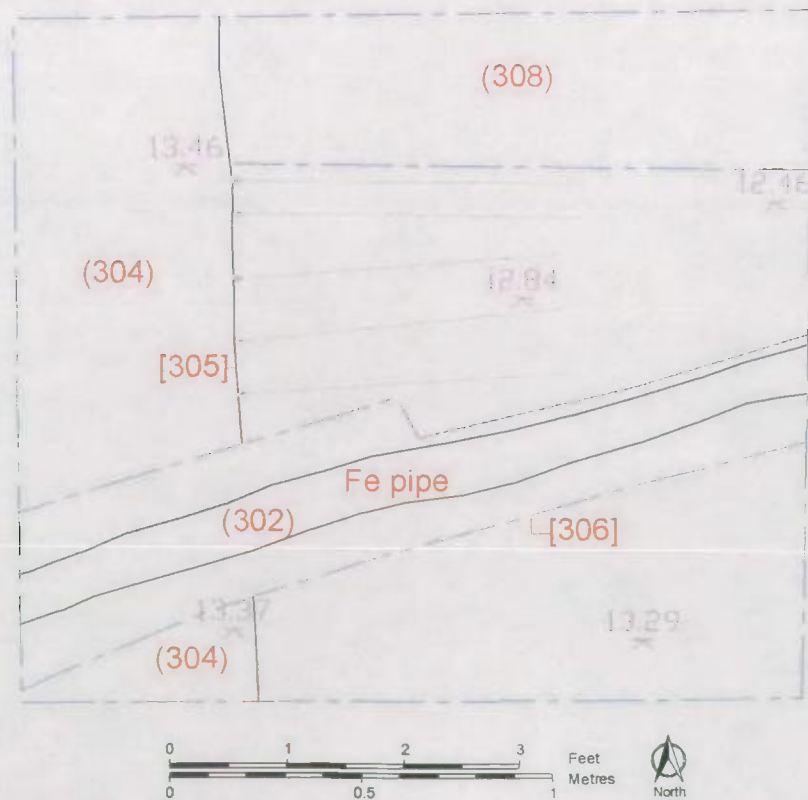


Figure 8. Trench 3 plan. (Scale 1:20).

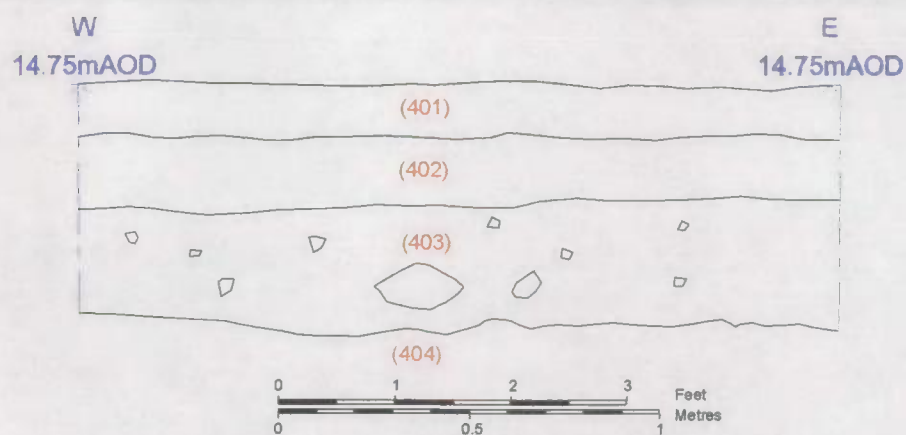


Figure 9. South facing section of Trench 4. (Scale 1:20).

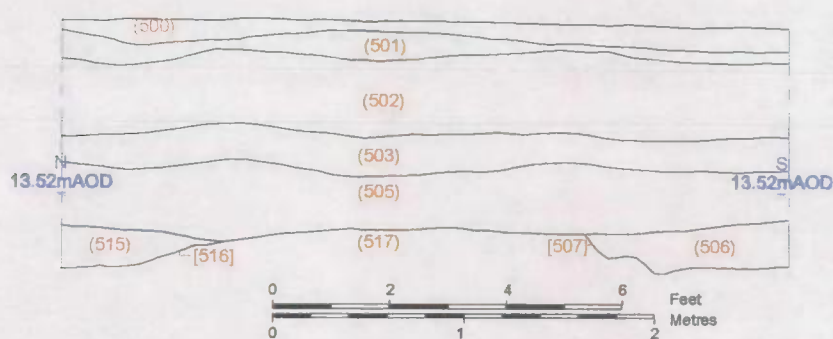


Figure 10. West facing section of Trench 5. (Scale 1:40).

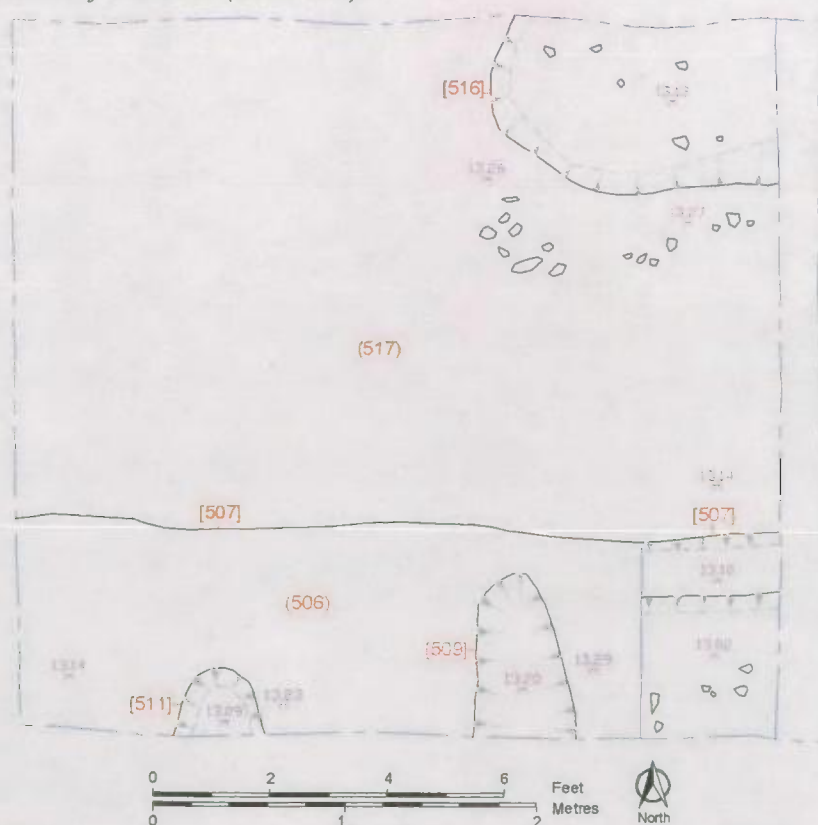


Figure 11. Trench 5 plan. (Scale 1:40).

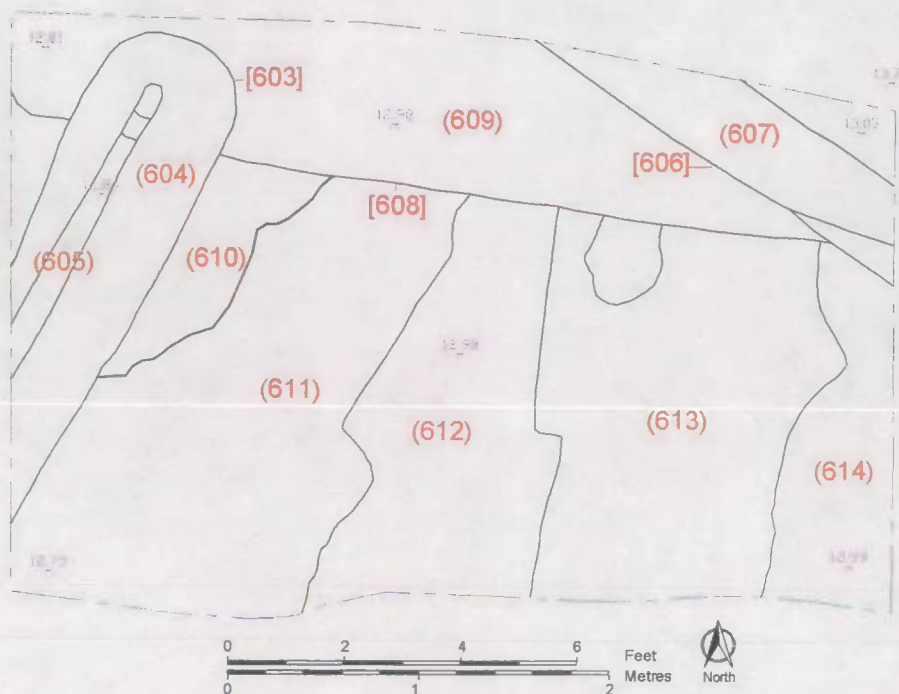


Figure 12. Trench 6 plan. (Scale 1:40).

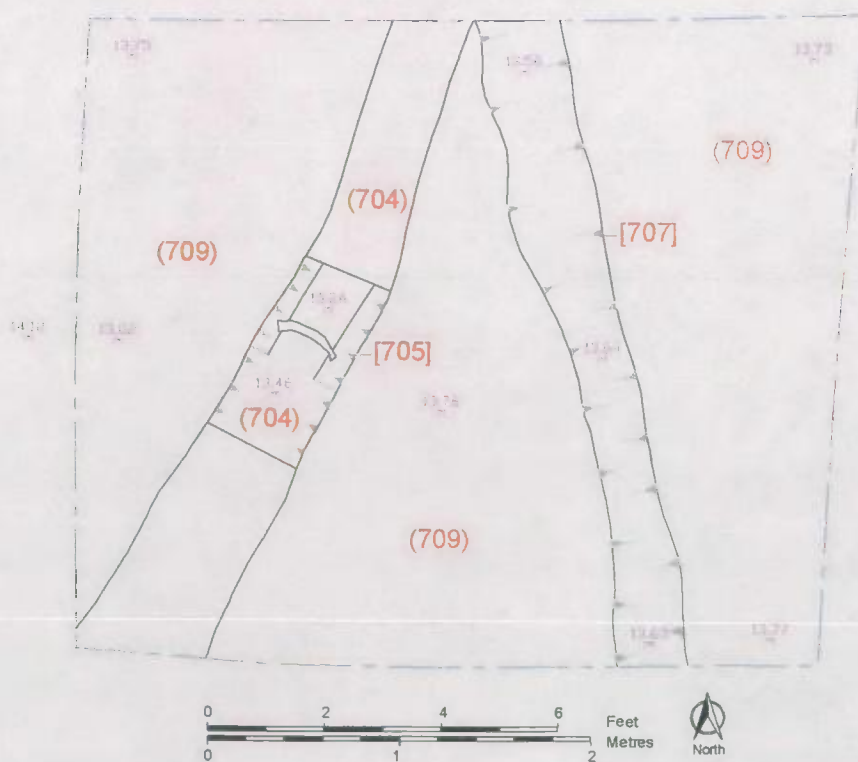


Figure 13. Trench 7 plan. (Scale 1:40).

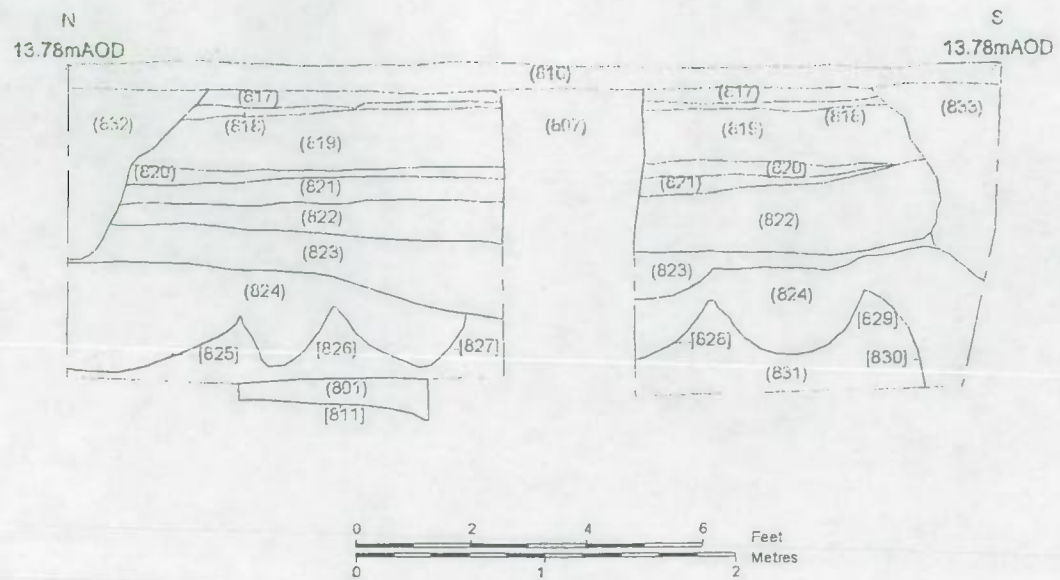


Figure 14. West facing section of Trench 8. (Scale 1:40).

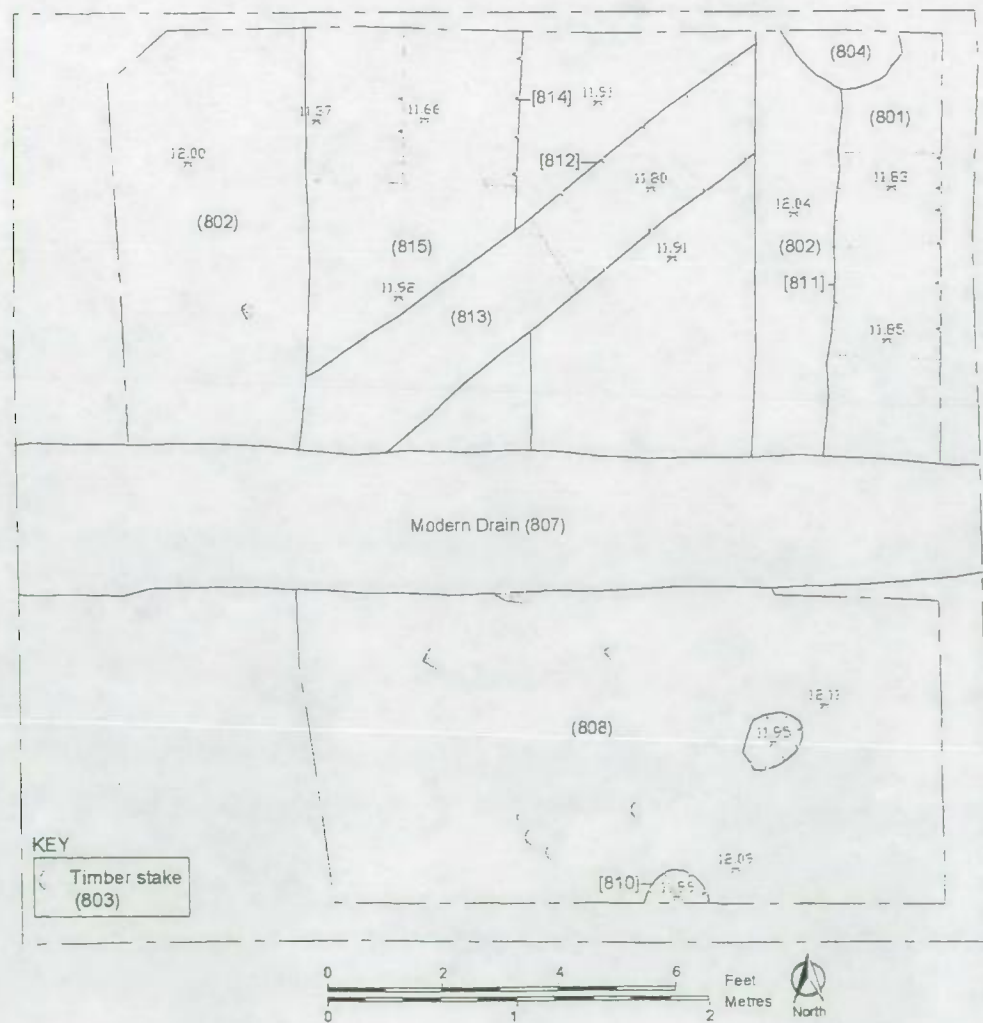


Figure 15. Plan of Trench 8. (Scale 1:40).

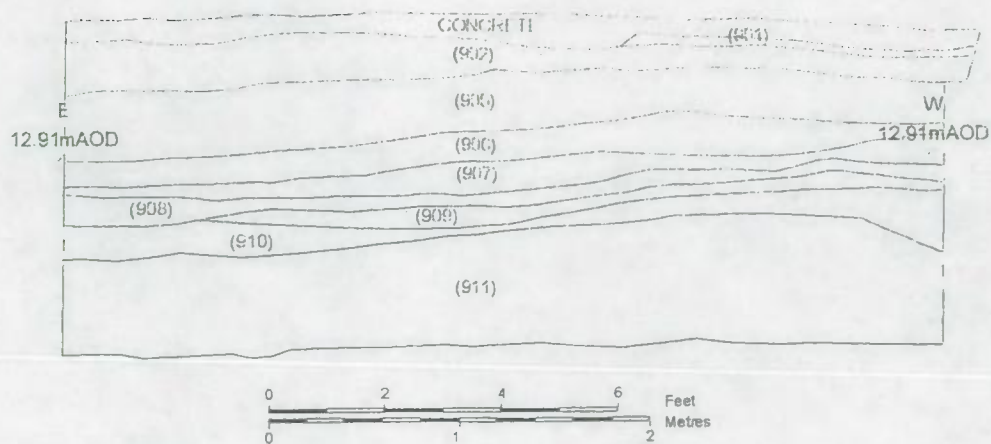


Figure 16. North facing section of Trench 9. (Scale 1:40).

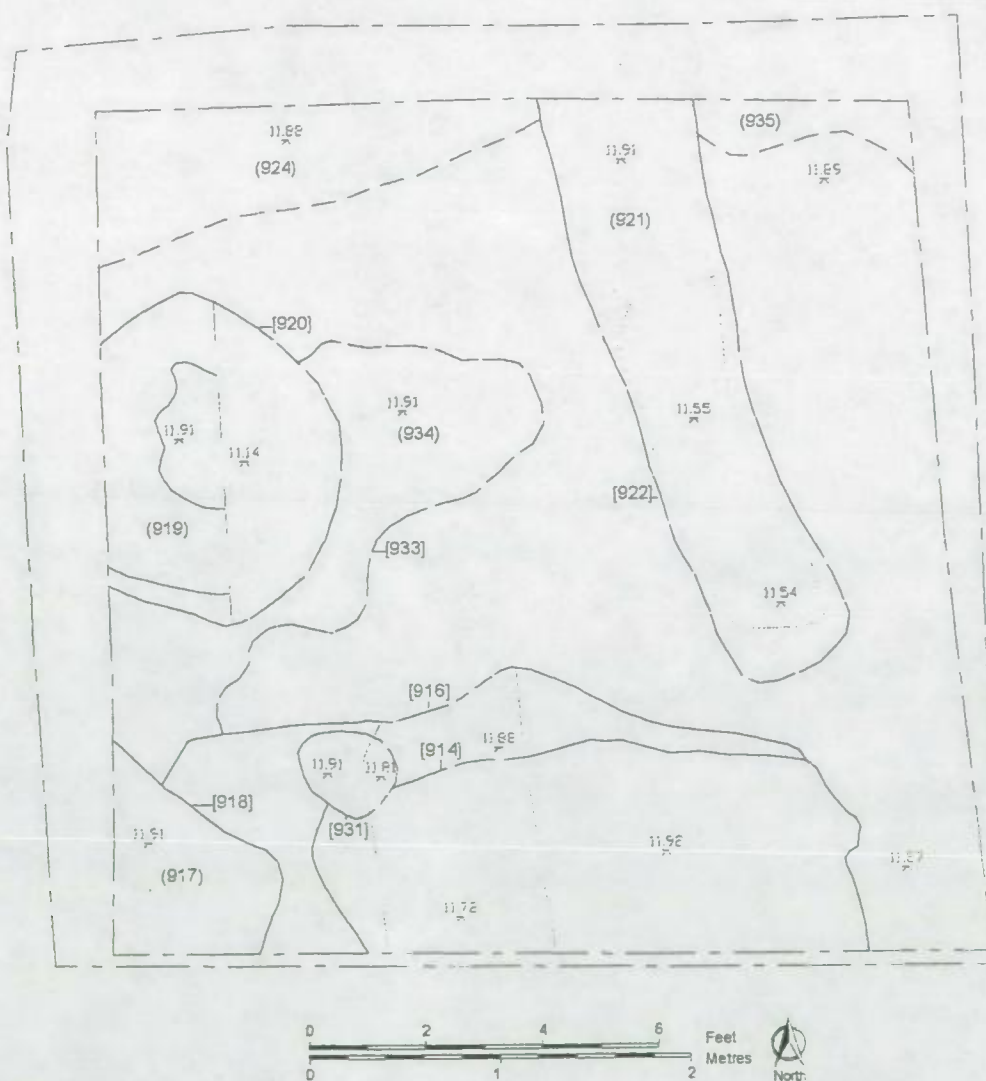


Figure 17. Trench 9 plan. (Scale 1:40).

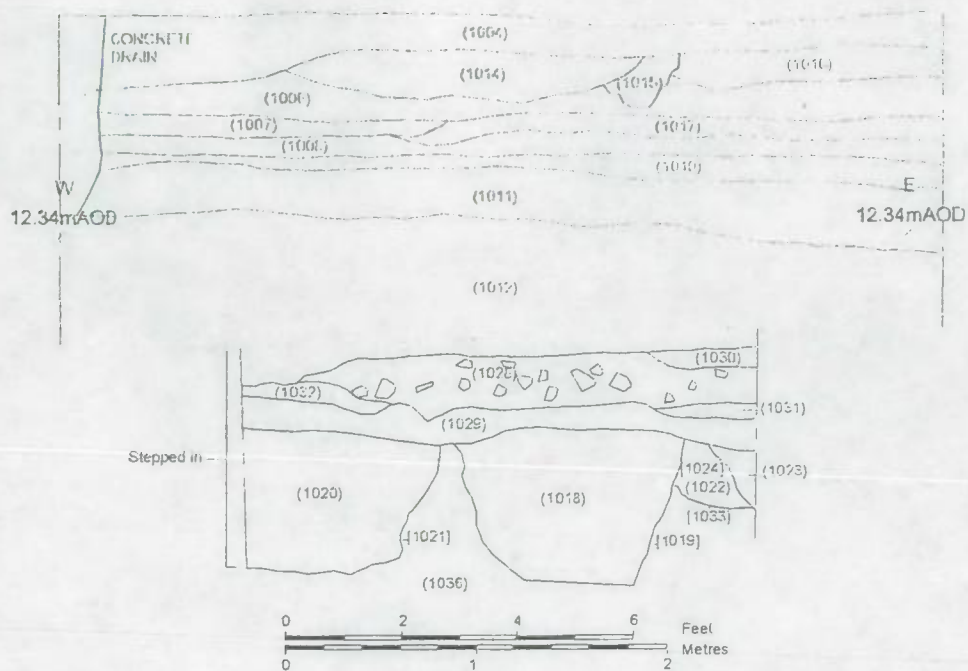


Figure 18. South facing section of Trench 10. (Scale 1:40).

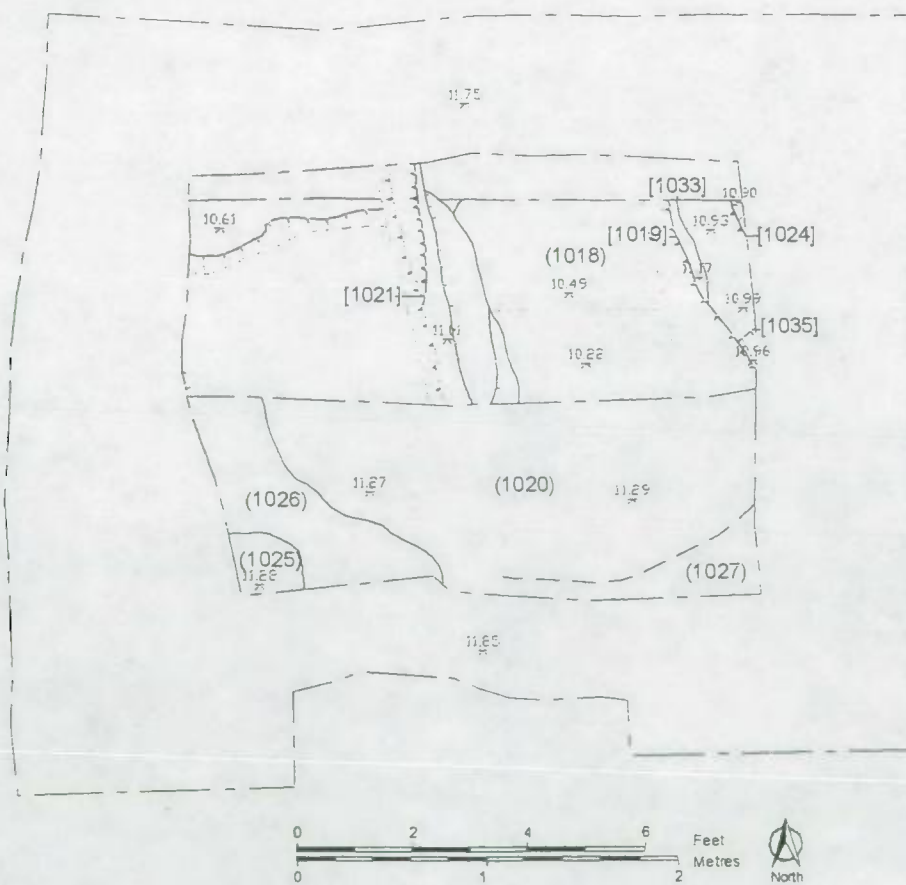


Figure 19. Trench 10 plan. (Scale 1:40).

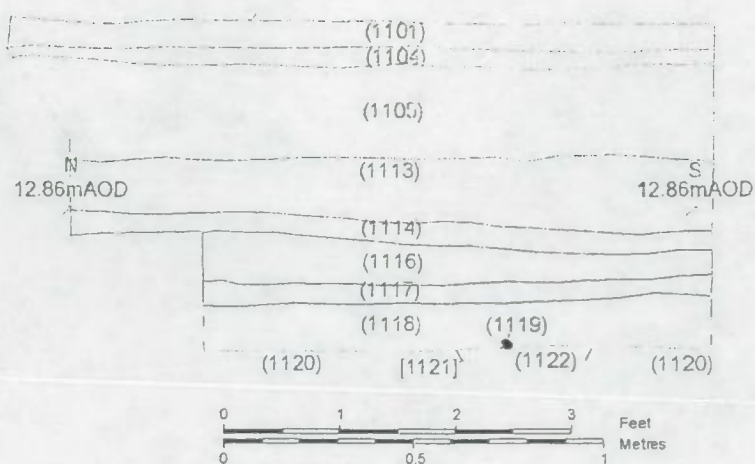


Figure 20. West facing section of Trench 11. (Scale 1:20).

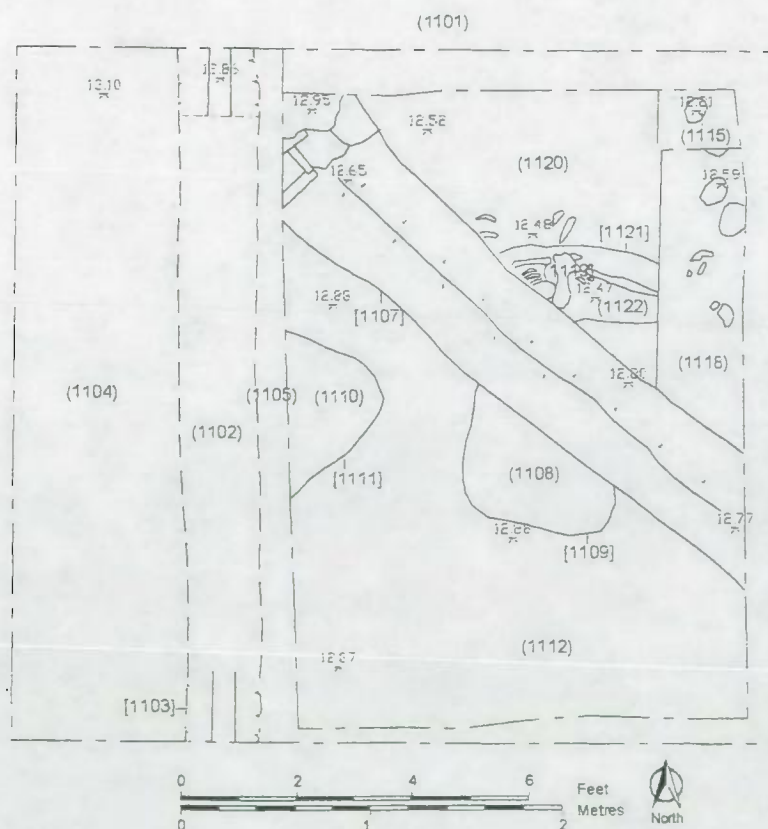


Figure 21. Trench 11 plan. (Scale 1:40).

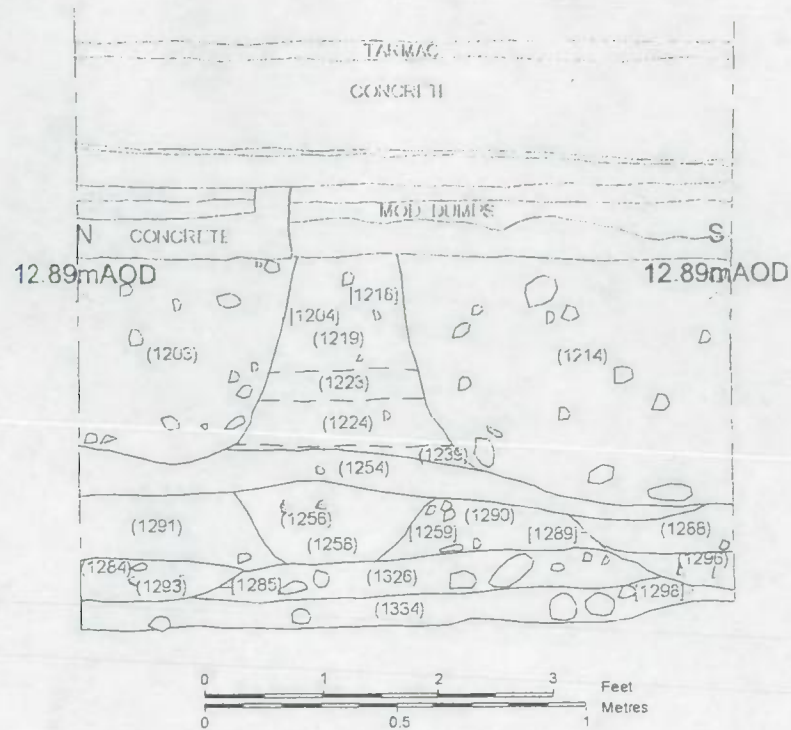


Figure 22. West facing section at east end of Trench 13. (Scale 1:20).

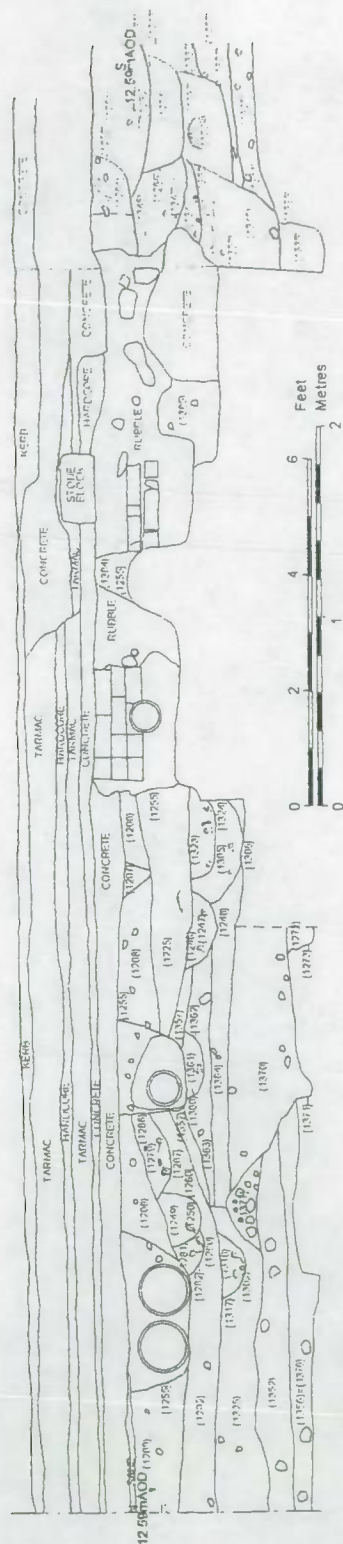


Figure 23. West facing section of Trench 12. (Scale 1:40).

Figure 24. Trench 12 & 13 pre-excitation plan, showing robber trenches and foundations of the church. (Scale 1:60).

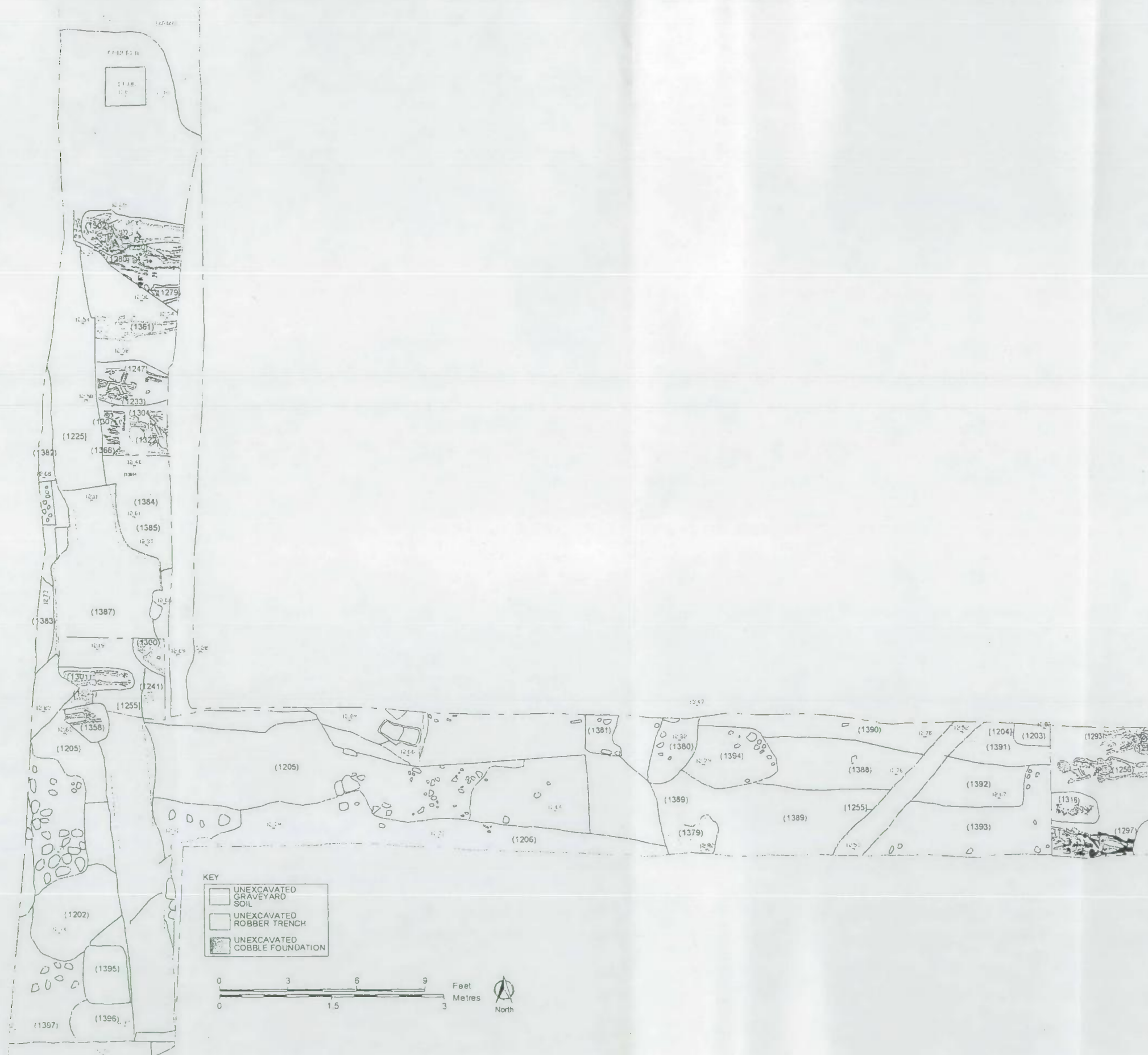


Figure 25. Trench 12/13, plan of church and excavated burials. (Scale 1:60).

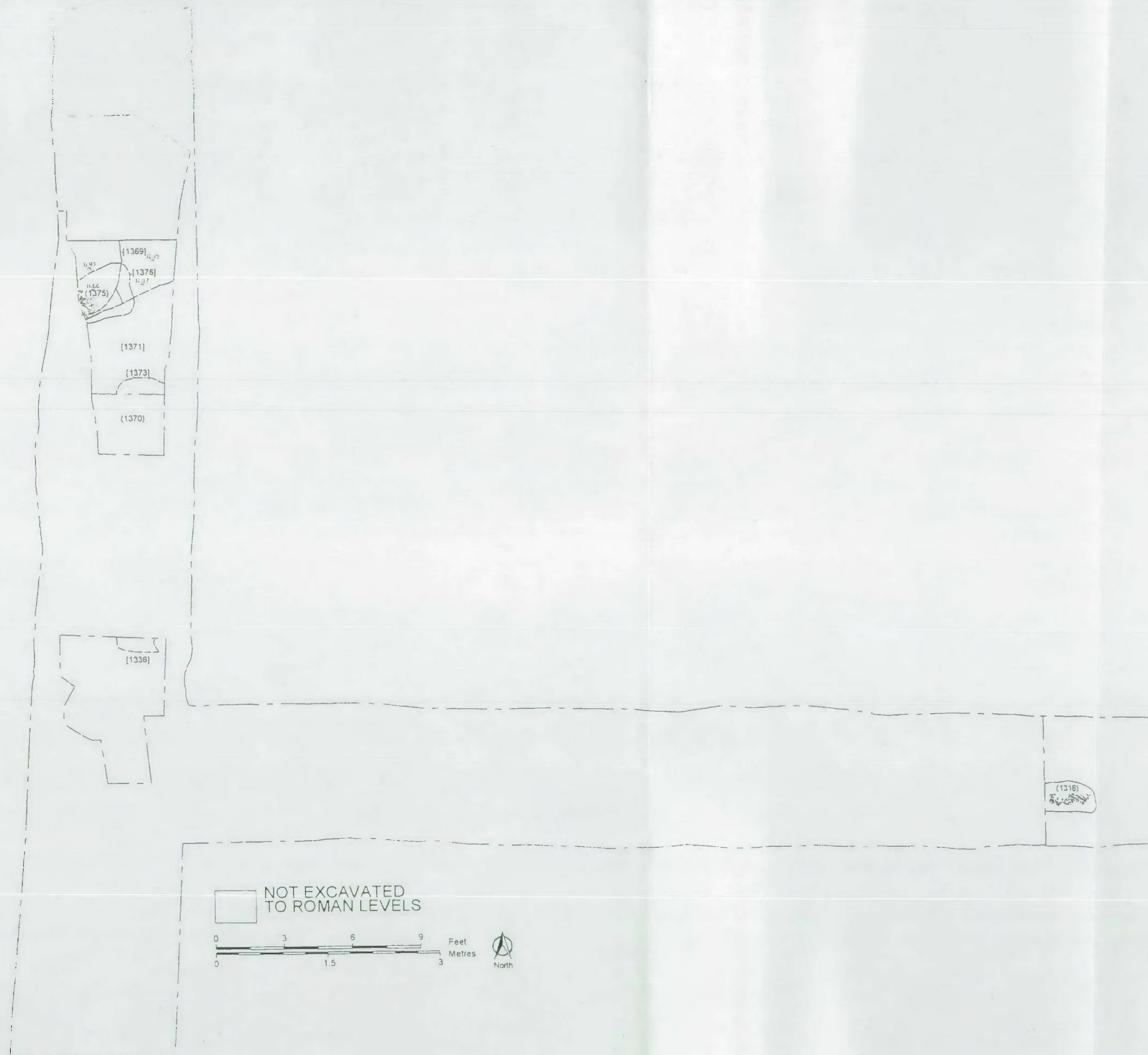


Figure 26. Trench 12/13, plan of Roman features. (Scale 1:60).

6.0 Discussion.

Natural deposits were encountered in all but one of the trenches (Trench 11), at depths of between 0.30m (Trench 7) and 2.20m (Trench 10). During the excavation of the trenches it became clear that the fairly gentle slope of the modern ground surface did not precisely mirror the natural topography. The highest level of natural recorded was within Trench 4 towards the east boundary of the site (14.10m AOD). In view of the fact that this trench only contained very modern deposits it is reasonable to assume that the surface of the natural may have been truncated. This "high-point" would therefore originally have been even more of a feature of the natural topography. The natural appears to have sloped down from this point to both the north and the west. To the north the untruncated surface of natural was found in Trenches 3 and 5 at 13.40m and 13.20m AOD. This would suggest a drop of less than 1m over a distance of approximately 70m, indicating a relatively gentle slope in this direction. Further to the west the natural clearly sloped to a lower level, being found at around 12.00m AOD in Trench 12/13 and 11.90m AOD in Trenches 8 and 9. Trench 8 only lay around 120m to the west-southwest of Trench 4, indicating a rather steeper slope in this direction. Although the natural was found at a lower level in Trench 10 (11.20m AOD) this had been cut by a number of Roman and medieval features and may not reflect the original surface level.

As with almost all investigations within York the site has yielded no evidence for prehistoric activity. This is despite the apparently attractive location along the edge of the ridge of glacial moraine.

Roman features were found in several trenches in the southwest and west parts of the site (Trenches 8, 9, 10 and 12/13). The nature of these features broadly confirmed the agrarian character of this part of the Roman landscape, being predominantly in the form of boundary ditches. However, the inhumation burial found in the northern part of Trench 12 has established that the Roman cemetery also continues onto the site. This cemetery has previously been represented by cremations and appeared to be located principally to the south of the site. As no further cremation burials were found in the coach park trenches (8 to 10) this might indeed be the case, although the frequency of medieval intrusions means that any such suggestions need to be treated with caution. The inhumation burial (or possibly burials) found in Trench 12/13 may indicate that there are two separate cemeteries in this area; one consisting of cremations and the other inhumations, or that a more extensive cemetery, in which both funerary rites were practised, lays within this area.

Despite the proximity of the site to the excavated Anglian settlement on Fishergate the evaluation has produced no additional evidence for occupation of this period. The previous evaluations and excavations have found isolated features such as pits, and it is not inconceivable that further features of this type are located within the site. However, it now appears that it is unlikely that the main core of Anglian settlement extends this far east from the River Ouse. This area would also seem to be beyond the main areas of Anglo-Scandinavian occupation, as no significant evidence for this period was encountered.

The main areas of survival of medieval archaeological remains correspond with those of the Roman period, being located in the western half of the site. Clearly the most important discovery of medieval date is the confirmation of the location of the church of All Saints, Fishergate, in Trench 12/13. Whilst presumably medieval burials had been found in this corner of the site in small-scale observations over the past thirty years this evaluation trench has provided the first view of any part of the church for several centuries. The existence of a number of phases of construction and rebuilding is unsurprising, in view of the probable duration of the life of the church. The original foundation date of the church is unknown, and unfortunately the evaluation has provided little new information to establish this. The only excavated part of the church fabric was a small length of cobble foundation, beneath a robber trench. As this foundation clearly post-dated (apparently medieval) burials this is very unlikely to represent the earliest version of the church. The single late 12th century sherd found within the clay bonding in the foundation helps date this phase of rebuilding of the church, but still does not assist a great deal in suggesting an original foundation date. Of greater significance may be the fact that whilst the medieval graveyard soils contained fairly frequent sherds of residual Roman pottery, they contained almost no pottery to suggest pre-Norman activity on the site.

One of the reasons for the location of Trench 12 was to test the idea that the northern limit of the graveyard had been identified as a fence line in an earlier evaluation trench (YAT 1988.27, Trench 19). Although no similar fenced boundary was found there was a distinct lack of burials within the northernmost part of the trench. This was particularly noticeable in view of the very densely packed nature of the graves immediately to the south of this (see Figure 25). This area of the graveyard contained two unorthodox burials (i.e. face-down), which are most likely to have been located towards the outer limits of the graveyard. The full eastern extent of the graveyard is less certain. Whilst the graveyard clearly continues as far as Trench 11 there is as yet no indication as to where the eastern boundary lies. Trench 9 excavated in 1988 (1988.27) found no evidence of burials, so the graveyard clearly does not extend this far east.

In addition to the medieval church and graveyard other areas of the site produced evidence for medieval activity. Within the Kent Street coach park (in Trench 10) this included two deep, steep-sided, parallel pits or trenches. The edges of these features clearly respect each other and were either open at the same time, or if one had been backfilled first, it was still visible when the later one was dug. These were probably excavated as quarry pits, for extracting clay. Medieval and undated ditches found towards the eastern edge of the site (in Trenches 3 and 5) may have been field boundaries within an otherwise undeveloped area.

7.0 Conclusions.

In view of the large scale of the site and diversity of archaeological survival a series of zones have been applied to assist in the overall characterisation of deposits (see Figure 2).

7.1 Zone A.

This zone comprises the staff car park, loading bay, cycle path and pavement at the junction of Kent Street and Fawcett Street. The main archaeological remains in this area consist of the medieval church of All Saints, Fishergate, and its associated graveyard. The original date of the church foundation is unclear, but it may have been established prior to the Norman Conquest. It was finally united with St Lawrence church in 1585 and is not marked on the John Speed map of York, dated 1610. The precise location of this church had been lost over the last four centuries, until the summer of 2003, when cobble foundations and robber trenches indicating the positions of the walls were discovered (in Trench 12/13). The graveyard extends to the north of the church, although burials were absent from the northernmost part of Trench 12/13. Burials were also found within Trench 11, indicating that the graveyard extends to the east as well. The top of these medieval remains were found immediately beneath 19th and 20th century deposits, between 0.30m and 0.55m below the modern surface.

The medieval deposits were approximately 1m thick and overlay occasional Roman features cutting into the natural. These features included pits, ditches and at least one inhumation burial.

Due to the shallow depth of modern deposits in Zone A there are only two realistic options for the treatment of the archaeological remains. Either they require full preservation *in-situ*, which would prevent any redevelopment of this area, or they require full archaeological excavation prior to development. The evaluation indicates that the number of individual burials, which may be present within the graveyard, is likely to run into four figures.

7.2 Zone B.

This zone comprises the coach park and toilets to the south of the west end of Kent Street. Archaeological remains in this area comprise features of medieval and Roman date cut into the natural deposits. These include pits, ditches, postholes and occasional truncated cremation burials of Roman date. These cremations were found in an evaluation trench excavated in 1988. No other burials were found during the current programme of evaluation.

These archaeological features were sealed by a substantial depth of 19th and 20th century deposits, extending to a depth of between 1.60m and 2.00m below the modern ground level.

Whilst archaeological remains, including evidence for scattered Roman burials, are present in this zone, the substantial depth of modern material sealing them would allow their preservation *in-situ* below new buildings. This would require foundation designs of less than 1.50m.

7.3 *Zone C.*

This zone comprises the main buildings of the Barbican Leisure Centre and Swimming Pool, together with associated landscaping. This zone has been the subject of two previous excavations. In 1973 an excavation was carried out in advance of the construction of the Swimming baths and in 1988 excavation were undertaken prior to the construction of the Barbican Centre. These excavations both encountered features of Roman and medieval date cut into the natural clay. However, these areas had been substantially truncated by the construction of the Cattle Market in 1827. The archaeology that had survived the Cattle Market has since been further disturbed by the construction of the Swimming Pool and Leisure Centre. Little, if any, remains of archaeological merit, are likely to have survived in this zone.

7.4 *Zone D.*

This zone comprises the Barbican Centre car park, the bowling green and associated landscaping. The evaluation trenches in the northern and southern parts of this zone encountered natural immediately below 20th century deposits, between 0.30m and 0.90m below the modern surface. Trenches 1, 2, 4 and 6 found no archaeological remains. In Trench 7 a single shallow ditch of possible medieval or Roman date was found although this had been heavily truncated. Towards the eastern side of this zone two trenches (3 and 5) encountered cut features of medieval date, including pits and ditches. These features were sealed by a layer of probably medieval ploughsoil, indicating that the degree of truncation caused by the construction of the Cattle Market and Barbican Centre was less severe here than elsewhere in this zone.

Over much of the zone the archaeological remains are likely to consist of occasional cut features into the natural, which are found immediately below modern deposits. The only archaeological mitigation necessary over the majority of this zone would be a watching brief to record any isolated archaeological features exposed during redevelopment. In the limited area in the east a slightly higher level of archaeological recording would be required. This would involve the mechanical excavation of upper deposits under archaeological supervision, down to the horizon at which the features are known to survive. These would then be planned and a sample excavation undertaken. Following this sampling exercise the area would be free for redevelopment.

7.5 *Zone E.*

This zone comprises the Kent Street 2-storey car park to the south of the east end of Kent Street. No evaluation has been undertaken during the current programme of works. An evaluation trench was excavated in the centre of this area in 1988, prior to the construction of the car park (YAT 1988.27, Trench 11). This evaluation trench encountered natural clay at 13.55m AOD (Above Ordnance Datum) which was approximately 0.75m below the contemporary ground surface. Occasional features were cut into the clay, including post-holes, all of which appear to be of recent date, and a pit of possibly Roman or medieval date. The construction of the car park will undoubtedly have partially truncated the archaeological remains in this zone. This evaluation trench suggests that the archaeology present under Zone

E is likely to be similar to that encountered in Zone D to the north, and therefore a similar level of mitigation is likely to be required, either in the form of a watching brief or limited excavation as described above. Depending upon the timing of access to this zone additional evaluation may be advantageous.

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9.0 Appendix 1 ~ Pottery Spot Dating.

Alan Vince¹

Conte xt	C1 /2	C 1 +	C2 +	C3+	C3/ C4	L C10 /C1 1	LC 11/ C1 2	C1 2	L C1 2/ C1 3	L C1 3/ C1 4	L C14 +	L C15/ C16	C17/ C18	L C18 +	C19	C19/C 20	Total
100	2								1								3
101															3		3
102		1						1									2
200													1				1
208	2												1				3
302														2			2
308	1						3										4
400	2													4			6
506									4								4
508									1								1
700									1								1
704	1	6									1				3		11
800	7															4	11
801	2	4															6
802				18													18
805	1																1
806	1																1
813	1																1
815	7																7
911					1				21								22
913	1								5								6
915											1						1
919									39								39
921	51																51
924	3																3
934					5												5
1000	3									1							4
1018	14										13						27
1020					6							15					21
1022	1																1
1100							2										2
1113											19						19
1114	6										4						10
1200	1	1	1		4	2		4	9	4						1	27
1201					15				3								18
1203									8								8
1205	1								1								2
1206									7								7
1208											2						2
1209											1						1
1211	1																1
1215					7			1									8
1223	3																3

¹ 25 West Parade, Lincoln, LN1 1NW

1224			3						3
1225	1				1				2
1240					1				1
1243						2			2
1246	1								1
1249	1	1				6			8
1251						1			1
1258	3			1					4
1264	3								3
1270	4								4
1274	1								1
1281				3		7			10
1286							4		4
1290	2								2
1296	4								4
1314	7								7
1325	2	1							3
1327				1					1
1335	1	3							4
1357	1								1
1364				5	1				6
1368	5								5
1370	9								9
Total									460

10.0 Appendix 2 ~ Human Bone Assessment Report.

Tania Kausmally.

10.1 Introduction.

A total of 41 articulated human skeletons were recorded during an evaluation undertaken by On-Site-Archaeology Ltd at the Barbican Leisure Centre during Summer/Autumn 2003, in advance of a proposed development. 31 skeletons were lifted or partially lifted from Trench 12/13 for further evaluation and assessment of the density of the cemetery. Dating evidence suggest that all skeletons are medieval apart from two possible Roman burials.

10.2 Methodology.

A total of 31 articulated skeletons were lifted or partially lifted in order to assess the density of the cemetery. A further 11 skeletons were recorded in-situ but have been omitted from this assessment as ageing and sexing was not carried out (see appendix A)

The assessed skeletal remains in this report were uncovered from 3 discreet areas of Trench 12/13. A further 2 skeletons were recorded in Trench 11 but not lifted. The skeletons were only removed within the area of excavation. Of the 31 exhumed skeletons, 21 were only partially lifted. The remaining skeletal parts were marked in the trench section so that they may be lifted and joined up with the correct individual should any further excavations be carried out.

A preliminary assessment of the human skeletal remains was undertaken in order to generate some idea of the value and preservation of the assemblage. The remains were not washed for the initial assessment, as this was deemed unnecessary. Observations on age and sex were carried out following guidelines laid down by Bass (1995), Brothwell (1981), White & Folkens (2000) and Buikstra & Uberlaker (1994). Pathological observations were made and noted where visible and interpreted in accordance with Aufenheider & Rodriguez-Martin (1998) and Roberts & Manchester (1995). Stature estimation was only carried out on a selected few skeletons.

10.3 Results.

The skeletal remains recovered from Trenches 11-13 were generally in an excellent state of preservation. Fragmentary remains occurred in all areas and were mainly caused by secondary burials or modern intrusions. 61% of all articulated exposed remains were very well preserved, 14% were well preserved but fragmentary, 11% were poorly preserved with the final 14% are of unknown condition.

The density of burials was high in all 3 areas with 4-6 burials pr.2 m². A large amount of disarticulated remains were removed from the grave fills, clearly indicating intensive use over a long period of time.

A majority of the burials were in an east-west alignment, buried with the head to the west in a supine position and are believed to be of medieval date. Two individuals (1250) and (1280) to the north, possibly along the north boundary of the cemetery, were buried face down, still maintaining the east-west direction, this appeared to be a deliberate burial method rather than post mortem disturbance of individuals. Both individuals were located in the same confined area, one above the other. Like the majority of burials these are believed to be of medieval date. One burial of a juvenile (1316) was on its side facing north, maintaining an east-west direction with the head to the west. Being the earliest burial in a sequence for this area, it is not unlikely the burial is of Roman date. Pottery found in the vicinity of the burial was 1st-2nd century AD, though some definite medieval graves likewise only yielded Roman pottery of a similar date, rendering the pottery dating somewhat dubious. One burial (1375) F was uncovered stratigraphically early in the sequence and is almost certainly of Roman date, buried in an east-west direction but with the head to the east. This skeleton was not lifted and has not been included in the assessment below.

Most burials appeared to be discreet, though grave cuts were extremely difficult to recognise, the skeletons were indicative of separate burials. It can however not be ruled out that some form part of mass graves.

The lifted or partially lifted skeletal remains underwent a preliminary assessment to generate an idea of the age and sex distribution in the cemetery. Pathological observations were made where possible. As the skeletal remains were not cleaned and only partially lifted, it should be stressed that this is only an indication of the actual results.

Figure A below provides an overview of the sex distribution within each age range. A total of 31 skeletons were included. It was only possible to allocate sex to the adult population as it is not possible to sex juveniles and the ilium of the foetus was absent. A total of 19 skeletal remains were from adult individuals showing an equal distribution of males and females. The age categories were divided into young adult (YA), middle aged adults (MIA) and mature adults (MA) whilst some adult individuals could not be allocated within any of the above age ranges and have been placed as simply adults (AD). Skeletal remains of 3 individuals were not assessed but have been included under the unknown category (unknown).

The child mortality rate in the assemblage is relatively high with 29% of all the articulated skeletons deriving from juveniles. The preliminary age range suggested that all were below the age of 10 years with the majority below the age of 7 years. One foetus (1303) was still in the womb of a young female (1302) and was aged at 8-9 foetal months, suggesting the mother may have died during childbirth. The age distribution shows a typical U-shaped mortality curve common for archaeological assemblages and developing countries with high mortality among infants/juveniles and mature adults (Waldron 2001).

The age distribution of males and females is indicative of a higher proportion of mature females than males whilst younger and middle aged adults were of a more even distribution. This is not uncommon as females tend to live to a greater age than males (Waldron 2001).

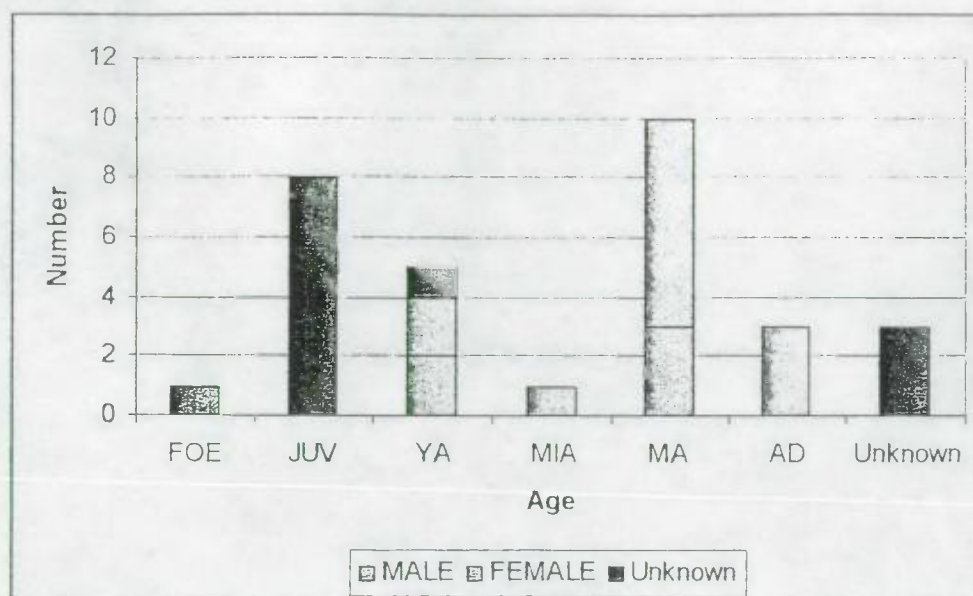


Figure A: Sex distribution within allocated age brackets (All medieval apart from one possible roman juvenile)

Pathological observations were limited as the bones were unwashed and less obvious conditions are likely to have been overlooked. Despite this a number of conditions were observed including degenerative diseases, infections and trauma. A total of 9 articulated individuals exhibited some form of pathology. Table 1 provides a summary of the conditions observed, some of which will be discussed in further detail below.

Context	Lifting	Parts present	AGE	SEX	Pathology
1241	Truncated	Feet	MA	F	OA of distal phalanges
1244	Truncated	Rib, r arm, lumbar, pelvis	MA	F	OA R hum olecranon fossa OA of 4xlumbar vertebra
1247	Part lifted	Complete (apart from L+R tibia & fibula)	MA	M	Bilateral OA of femoral head and acetabulum Osteoporosis of Lumbar vertebra
1256	Part lifted	complete (apart from feet)	MIA	M	Avascular necrosis of epiphysis of humerus and secondary OA
1283	Part lifted	Arms and torso	AD	M	Mild Marg Osteophytes of lumbar vertebrae
1297	Part lifted	Torso, pelvis, femur	MA	F	Mild OA of lumbar vertebrae
1299	Part lifted	cx2-7, clavicles, mandible	MA	F	OA and Collapsed Cervical 6-7
1302	Part lifted	complete (apart from feet)	YA	F	<i>Carry Foetus(1303)</i> Tibia Periostitis of mid shaft Dental hypoplasia by neck
1322	Part lifted	Skull, r clavicle, scapula, humerus and cervical vertebra	MA	F	Mild hypoplasia Perimortem tooth loss of all molars
1361	Part lifted	complete (apart from skull & feet)	MA	F	L5-sac joint OA collapse to left scoliosis of spine

Table 1: Overview of observed pathology

Degenerative diseases are common in an archaeological assemblage particularly in the spine. Osteoarthritis (OA) and Osteoporosis (OP) are common in mature individuals but may appear in younger individuals as cause of trauma or repetitive movement. The skeletal remains in this assemblage revealed that OA was prevalent in 6 of the 10 mature individuals. One mature individual (1247) exhibited bilateral OA of the hips, with “mushroom” shaped femoral heads and widened acetabuli probably a reaction to advanced osteoporosis of the lumbar vertebrae (see Plate 18). Skeleton (1256) exhibited a case of avascular necrosis of the epiphysis of the left humerus. This is often caused by insufficient blood supply with subsequent resorption followed by secondary OA (Aufenheider & Rodriguez-Martin 1998, 22) (see Plate 19).

Skeleton (1302) was that of a young female buried with a foetus in her womb (1303) who is likely to have died during child birth. The female was of very slight build and exhibited medium dental enamel hypoplasia of the incisors and canines, which may be caused by malnutrition or prolonged illness during childhood (Aufenheider & Rodriguez-Martin 1998, 407). Periostitis of the tibiae was further apparent, a non-specific inflammation of the bone which have been suggested to be caused by trauma or stress (Roberts & Manchester 1995, 129). It is possible that the female was underdeveloped and weak due to stress during childhood and was unable to give birth to the child.

Stature estimations were not carried out during the preliminary assessment. Only two male individuals were measured showing a height of 171-178cm. It was however the general impression that the male individuals in the assemblage were above average height for a medieval population, which lies between 150-171 cm (Waldron 2001). The females were of varied height and build, with the majority being very slight and of much smaller stature than the males.

10.4 Discussion.

The archaeological evaluation yielded a medieval cemetery possibly overlying Roman burial grounds. The cemetery revealed a very high density of human remains, both articulated and disarticulated, suggesting intensive use over a prolonged period of time, with around 4-6 articulated burials per 2 m², an estimated 1000 burials are expected across the supposed extent of the cemetery.

The preservation of the human remains was generally excellent. The more fragmentary and truncated remains were mainly caused by overlapping burials or modern service trenches. The preservation and the yield of a large number of burials within a confined area and time offers great potential for demographic studies of York's medieval and possibly Roman population.

The preliminary demographic studies carried out in this report are indicative of a cross-section of society with children, males and females showing a typical U-shaped mortality curve. With further excavation more information may be gathered of social conditions as well as on the general health of the population.

The excellent preservation of the assemblage will allow more accurate and informative demographic studies on the social population buried at the cemetery. Through the assessment

it is apparent that pathological conditions have survived extremely well and a larger assemblage will allow for a decent study of pathological prevalence rates.

It was the general impression that the skeletal remains uncovered were above average height for a medieval population. Stature is another indication of health of a population and could prove an interesting comparative study with other medieval populations in Britain.

The possibility of an almost complete excavation of a medieval cemetery with knowledge of boundaries and the situation of the church allows for further consideration into burial practices and social differentiation. The two face down burials (1250) & (1280) were apparently situated along the north boundary of the cemetery, which poses the question of differential treatment of individuals. Combined with osteological analysis the variation and location of burials may provide a unique insight into medieval burial traditions.

With immediate reburial of the human remains in mind, it is important that adequate analysis is to be undertaken to allow the assemblage to be used for comparative studies with other cemeteries. This includes considerations on metric and non-metric analysis as well as sampling strategies, photographic records and possible x-rays of unique pathologies.

10.5 Conclusion.

There is no doubt that further excavation of the cemetery will prove a valuable archaeological exercise. The assemblage is well preserved and will allow a valid demographic study as well as a unique insight into pathological prevalence rates. Stature estimations may further prove interesting with the apparent above average stature of a large number of male individuals. The face down burials uncovered further poses the question of differential treatment and burial practices during the medieval period. The two possible Roman burials suggests that the medieval cemetery may have been placed on Roman burial grounds and further excavations may yield information on the Roman as well as the medieval population.

Appendix A.

Context	Position	Direction	Preservation	Lifting	Age	Sex
1115	n/a	Head W	Good	not lifted	n/a	n/a
1119	Supine	Head W	Good	not lifted	n/a	n/a
1216	Supine	Head W	Brittle	Truncated	n/a	n/a
1227	Supine	Head W	Good	not lifted	n/a	n/a
1233	Supine	Head W	Good	Truncated	MA	F
1236	Supine	n/a	n/a	Truncated	n/a	n/a
1241	Supine	Head W	Good	Truncated	MA	F
1244	Supine	Head W	Good	Truncated	MA	F
1247	Supine	Head W	Moderate	Part lifted	MA	M
1250	Face down	Head W	Good	Part lifted	YA	M
1252	Supine	Head W	Good	Not lifted	n/a	M
1256	Supine	Head W	Good	Part lifted	MIA	M
1257	Supine	Head W	Poor	Part lifted	n/a	n/a
1262	n/a	n/a	n/a	not lifted	n/a	n/a
1265	Supine	Head W	Fragmentary	Truncated	JUV	n/a
1268	Supine	Head W	Fragmentary	Truncated	YA	n/a
1271	n/a	Head W	Fragmentary	Part lifted	JUV	n/a

1276	Supine	Head W	Moderate	Truncated	JUV	n/a
1279	Supine	Head W	Good	Part lifted	AD	M
1280	Face down	Head W	Fragmentary	Part lifted	MA	M
1283	Supine	Head W	Moderate	Part lifted	AD	M
1293	Supine	Head W	Good	Part lifted	YA	F
1297	Supine	Head W	Good	Part lifted	MA	F
1299	Supine	Head W	Fragmentary	Part lifted	MA	F
1300	Supine	Head W	Good	Part lifted	MA	M
1301	Supine	Head W	Good	Part lifted	AD	M
1302	Supine	Head W	Good	Part lifted	YA	F
1303	n/a	Head E	Good	complete	FOE	n/a
1304	Supine	Head W	Good	Part lifted	YA	M
1307	Supine	Head W	Good	Truncated	JUV	n/a
1316	On side fac. N	Head W	Good	Part lifted	JUV	n/a
1320	Supine	Head W	Good	not lifted	AD	n/a
1322	Supine	Head W	Good	Part lifted	MA	F
1338	n/a	Head W	Good	not lifted	n/a	n/a
1341	Supine	n/a	Fragmentary	Part lifted	JUV	n/a
1346	n/a	n/a	n/a	not lifted	n/a	n/a
1349	n/a	Head W	n/a	Part lifted	JUV	n/a
1358	Supine	Head W	Good	not lifted	AD	n/a
1359	Supine	Head W	Good	Part lifted	JUV	n/a
1361	Supine	Head W	Good	Part lifted	MA	F
1366	n/a	n/a	n/a	not lifted	n/a	n/a
1375	Supine	Head E	Good	not lifted	n/a	n/a

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11.0 Appendix 3 ~ The Plates.



Plate 1. Trench 1, looking southwest.



Plate 2. Trench 2, looking east.

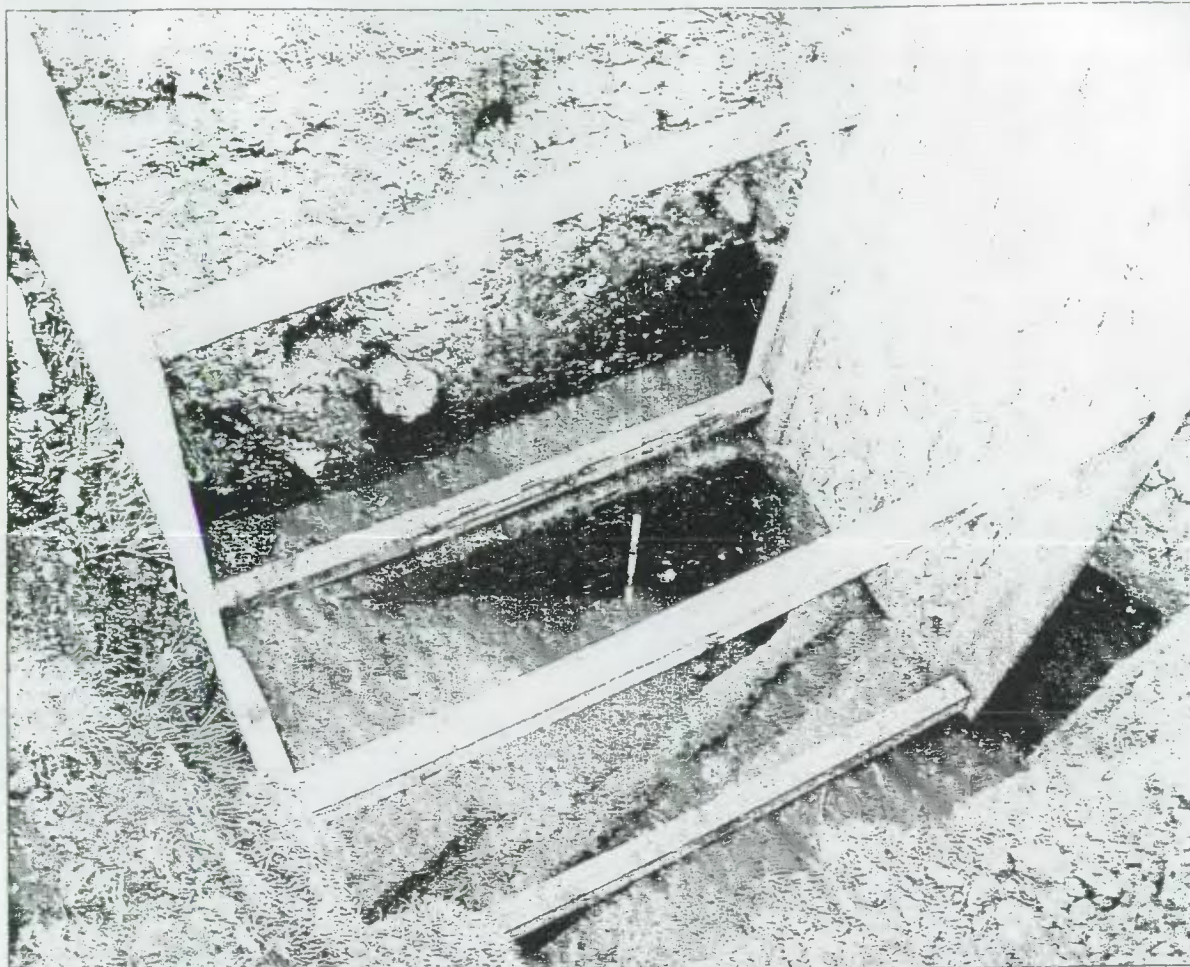


Plate 3. Trench 3, looking northeast.

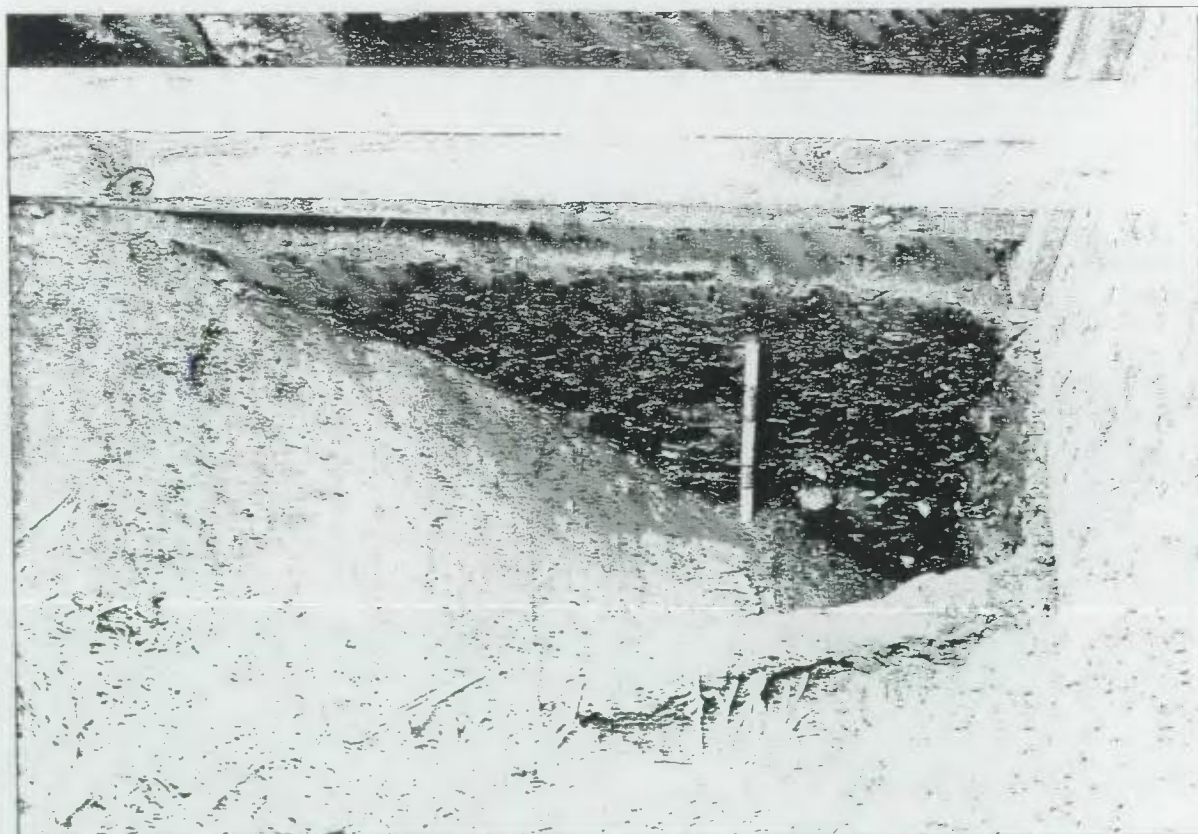


Plate 4. Trench 3 ditch [305], looking north.

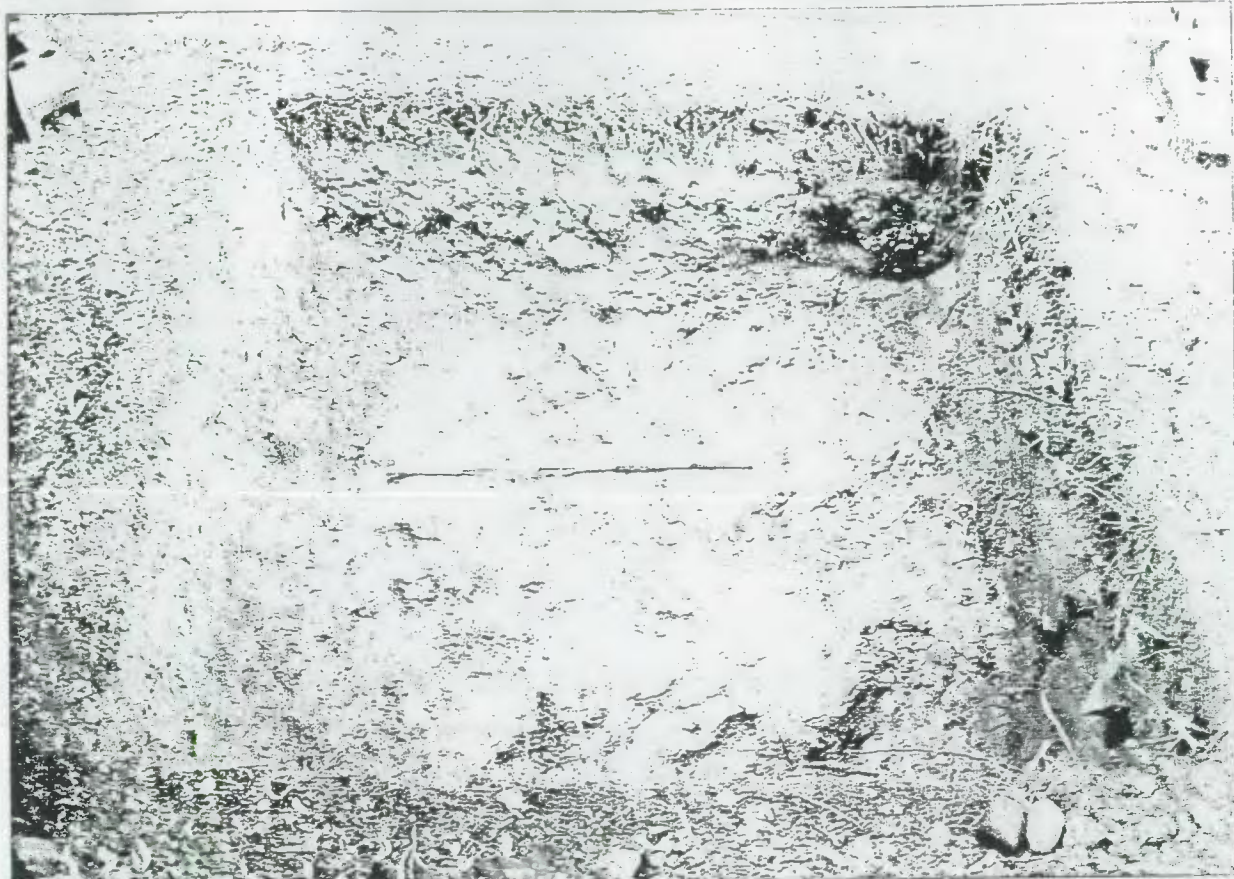


Plate 5. Trench 4, looking north.



Plate 6. Trench 5 looking north.



Plate 7. Trench 6 looking east.



Plate 8. Trench 7 looking northwest.

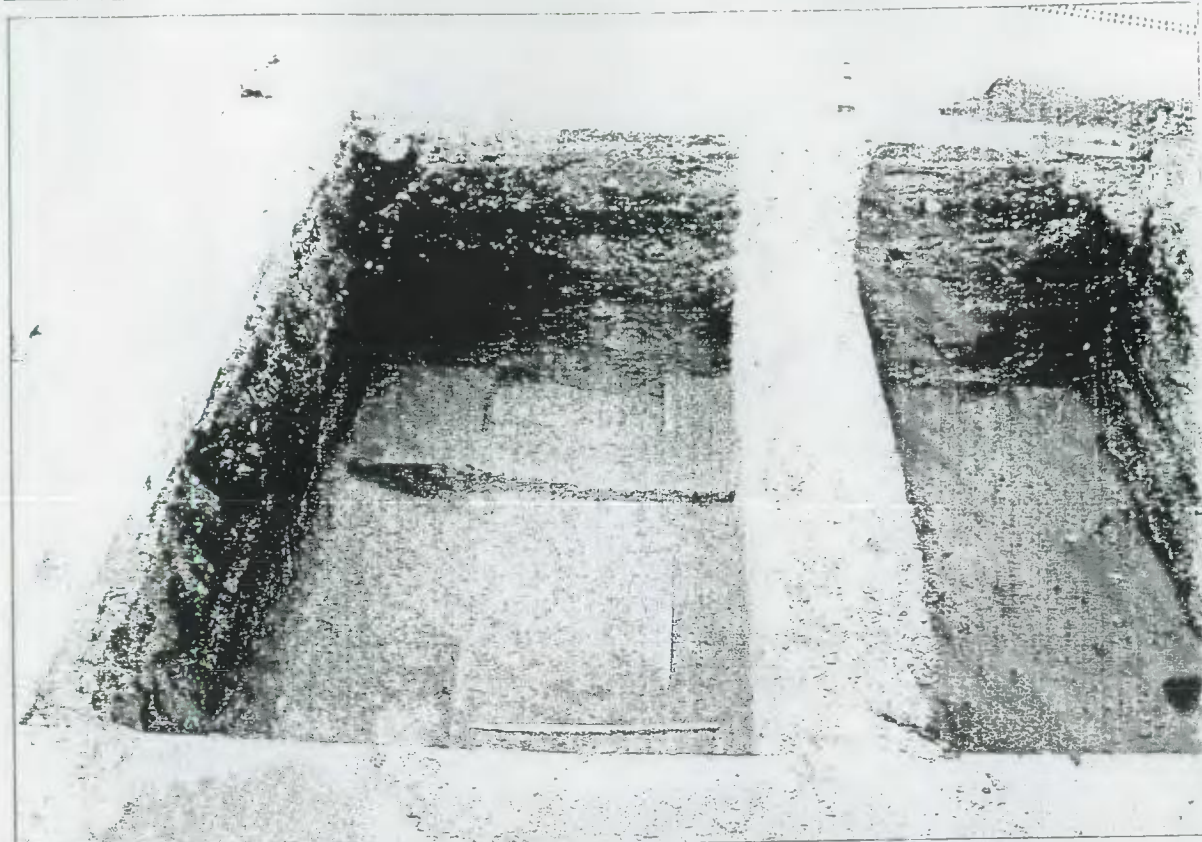


Plate 9. Trench 8, looking east.

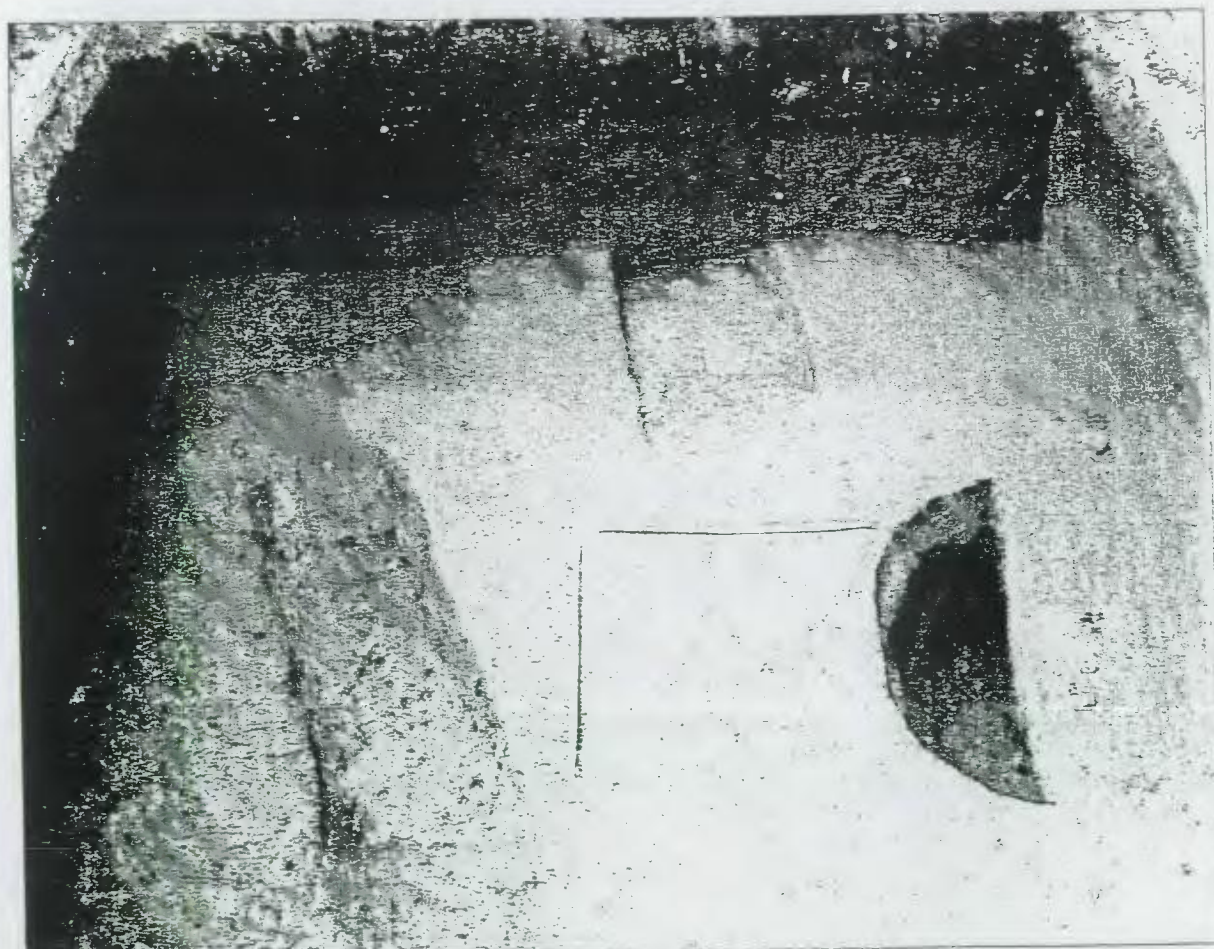


Plate 10. Trench 9, looking south.



Plate 11. Trench 10 pits [1019] & [1021], looking north.

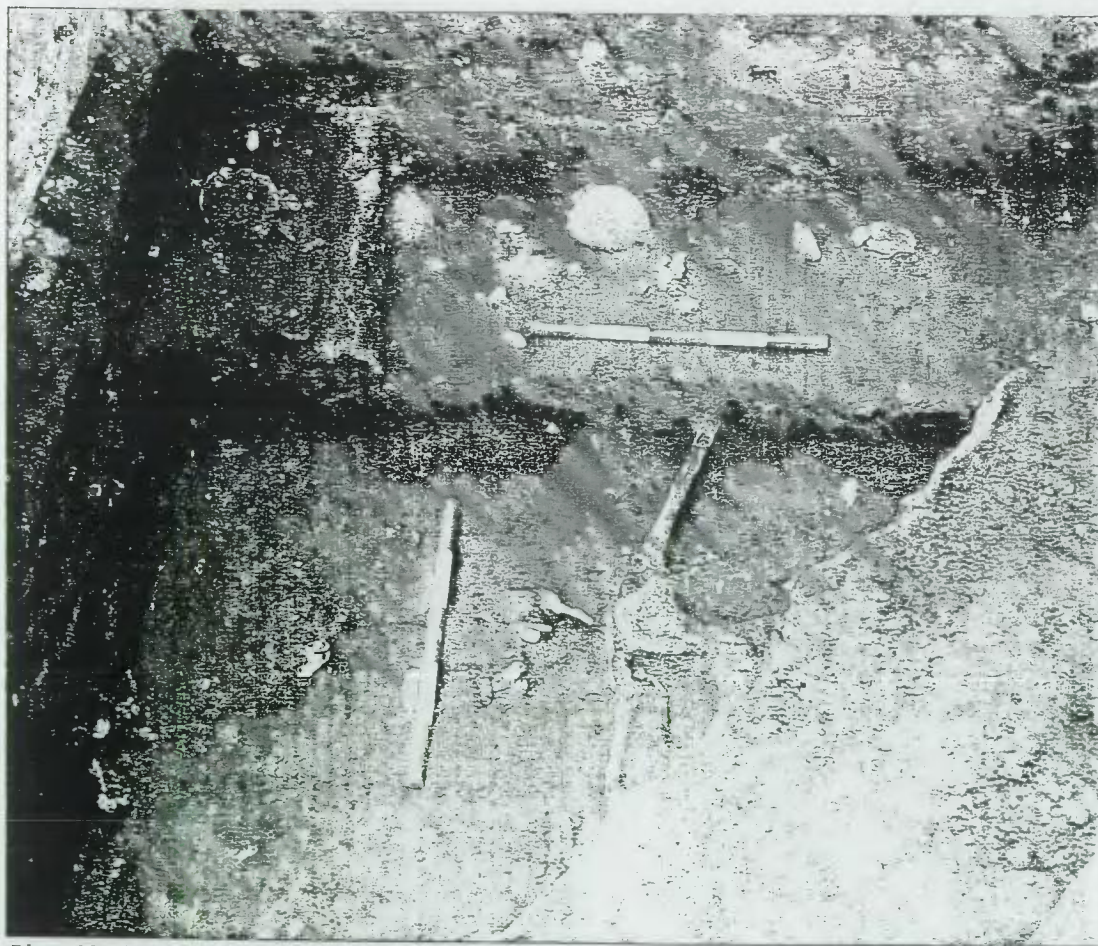


Plate 12. Trench 11 skeleton (1119), looking east.



Plate 13. Trench 12/13 Roman burial (1375) looking south-southwest

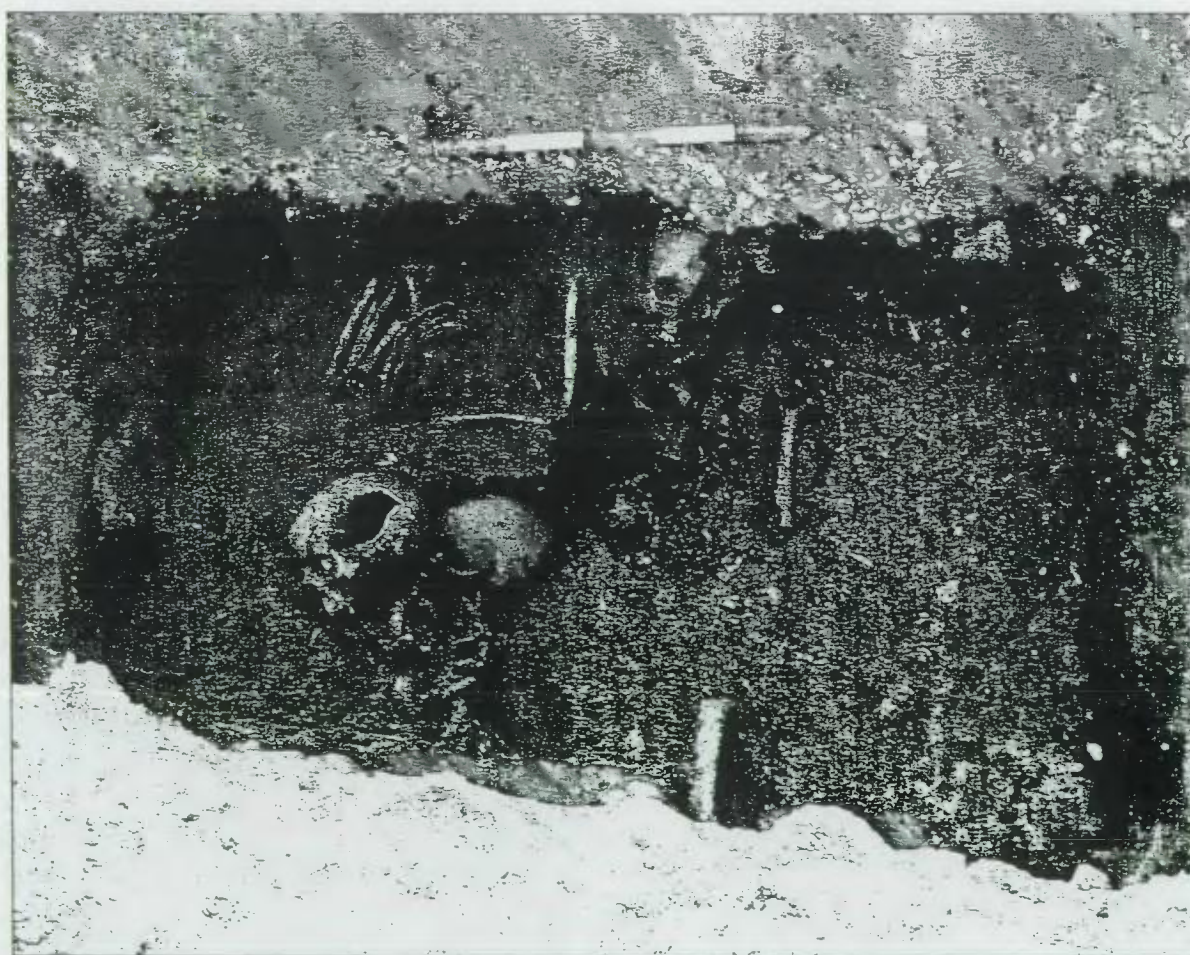


Plate 14. Trench 12/13 intercutting burials, looking west



Plate 15. Trench 12, skeleton (1256).

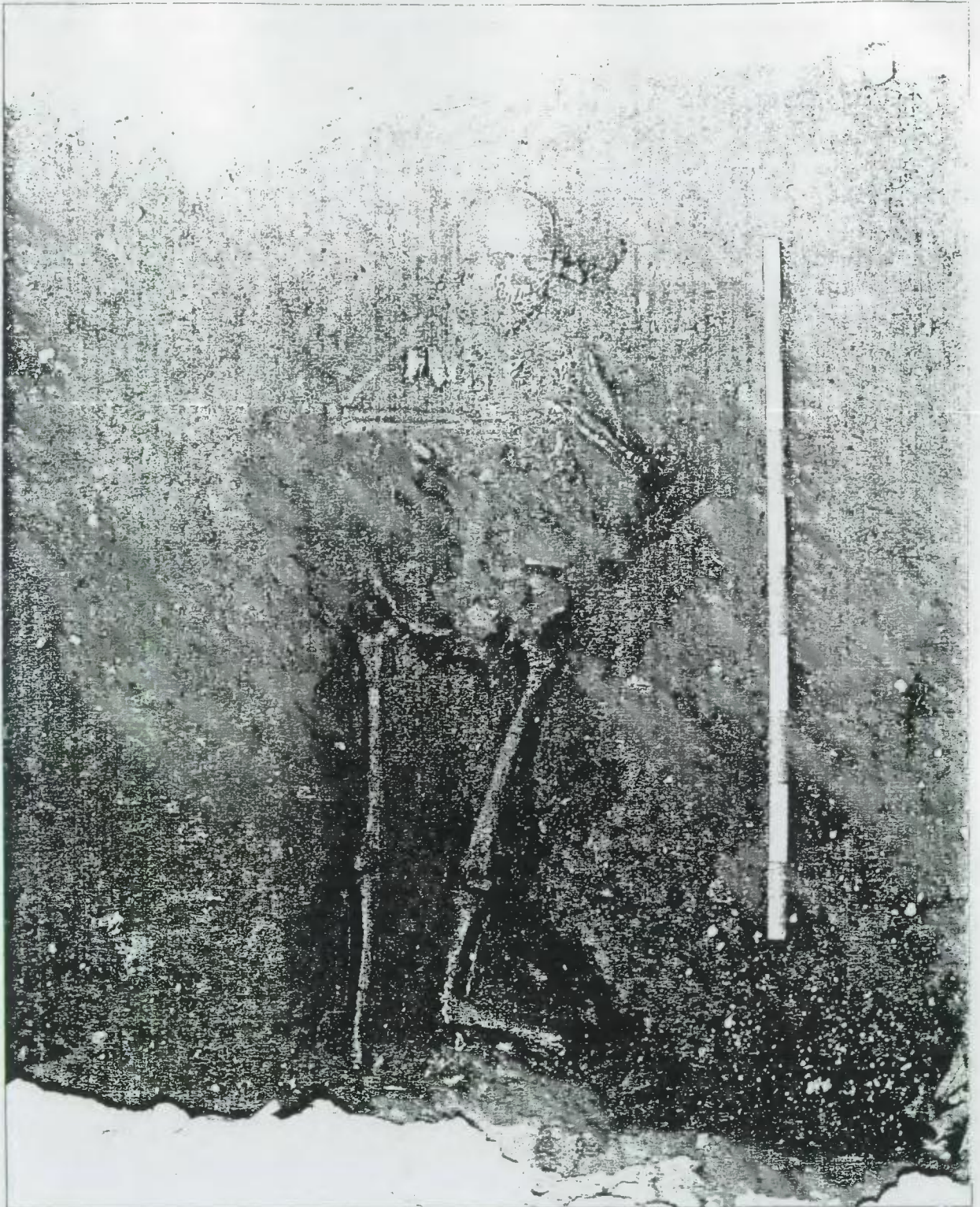


Plate 16. Trench 12 skeleton (1302), looking west.

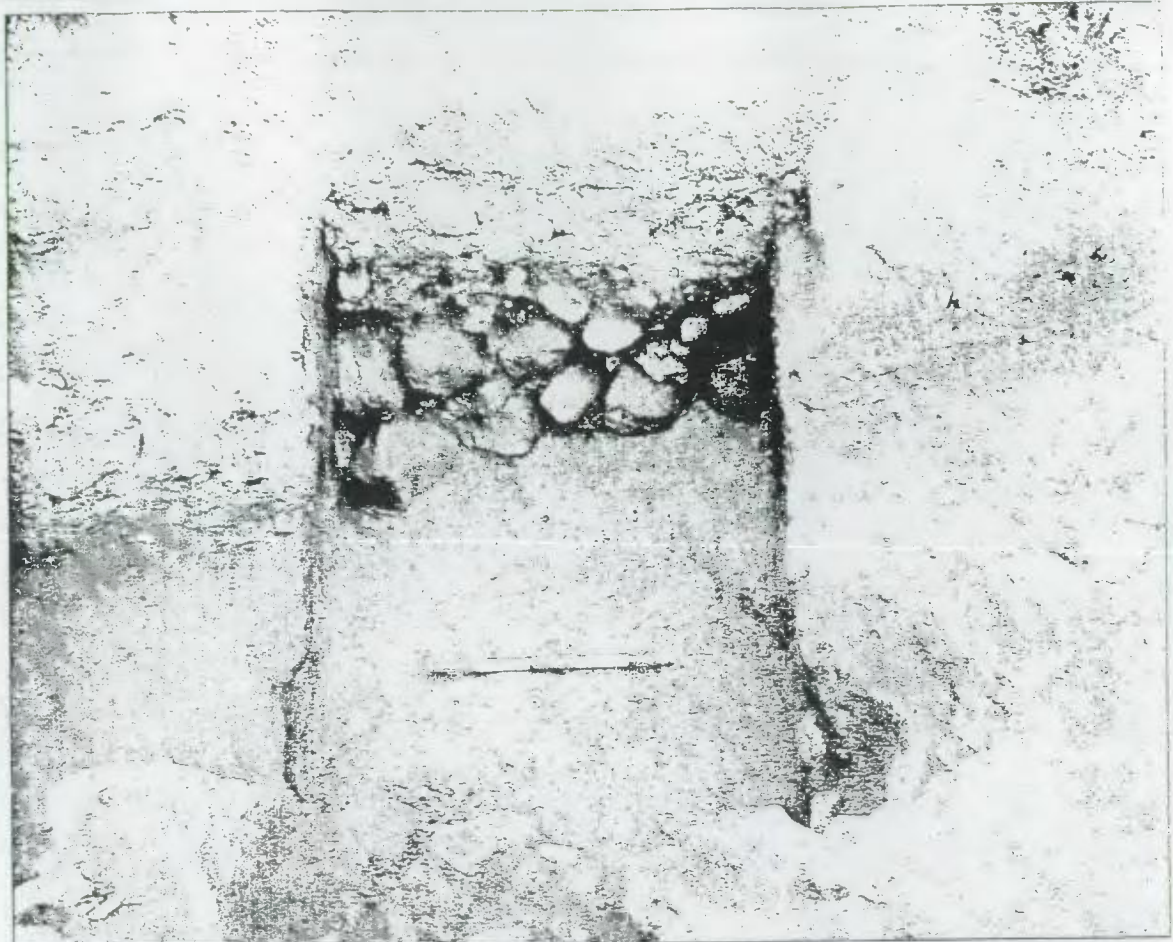


Plate 17. Trench 12 church foundations [1215], looking west.

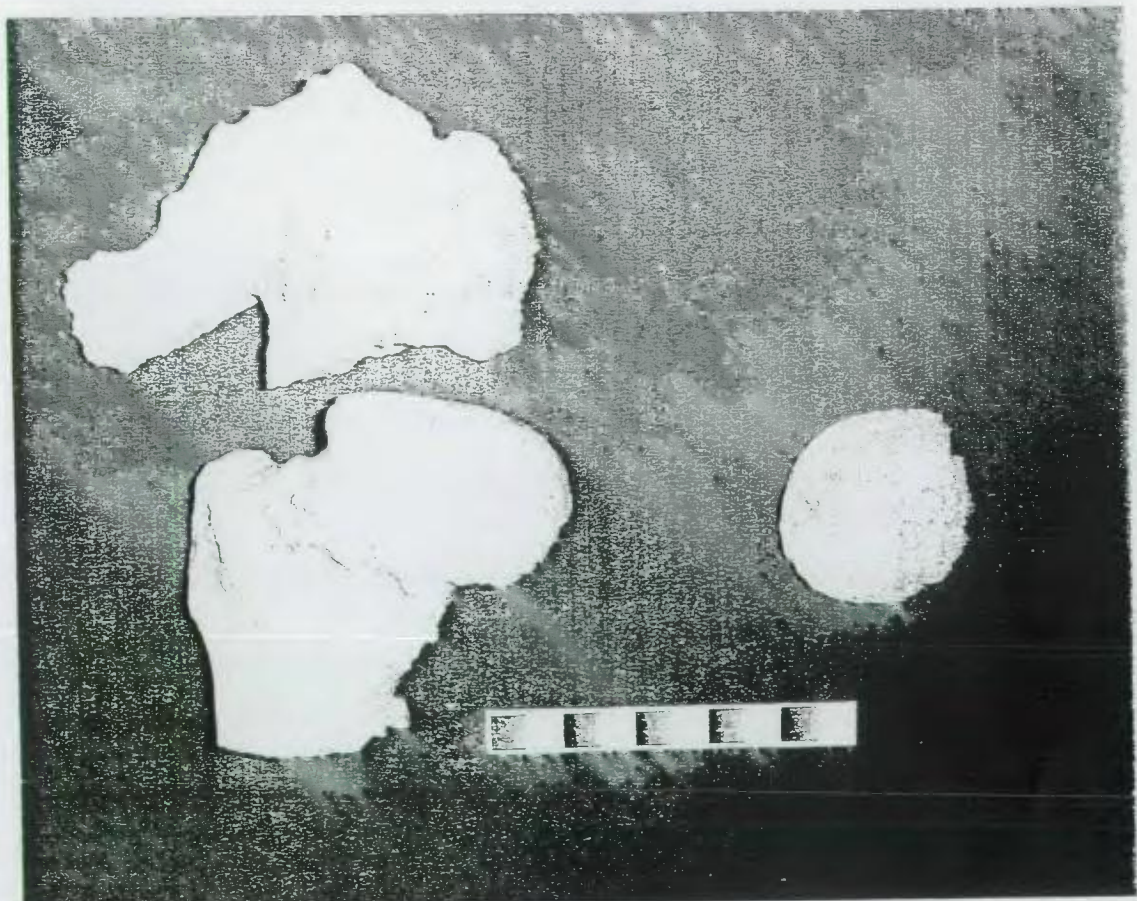


Plate 18. Skeleton (1247) detail of pathology.

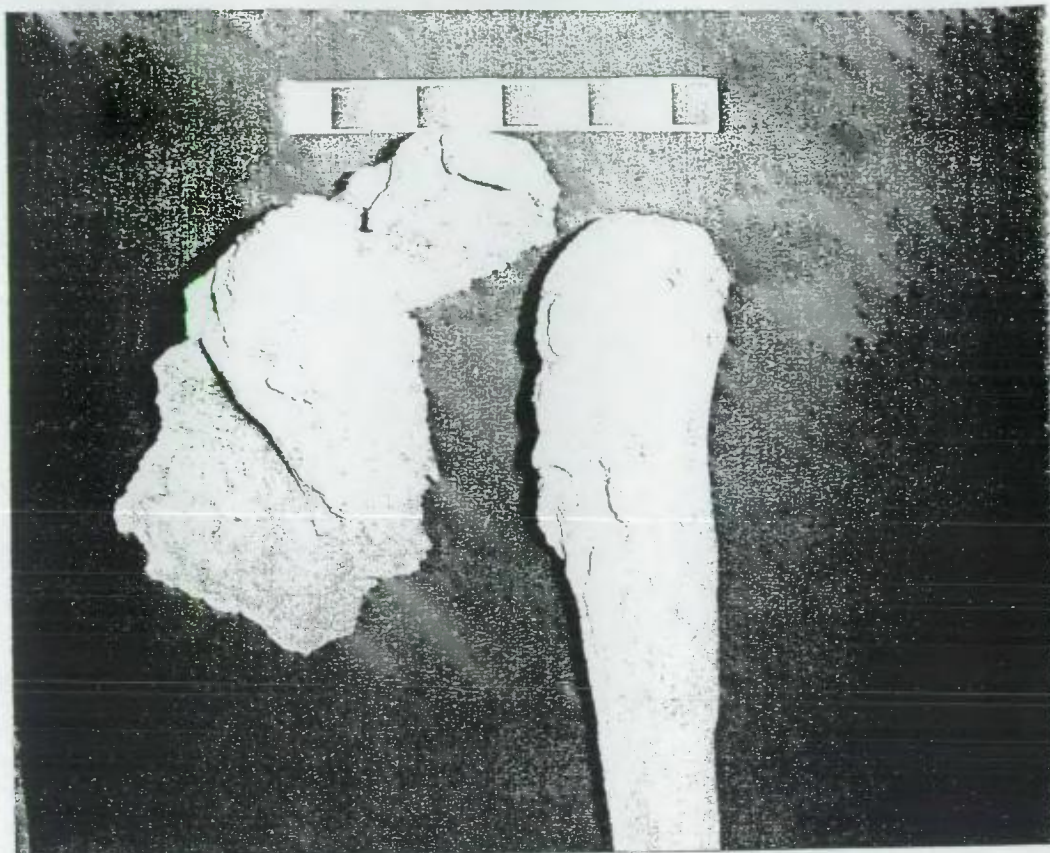
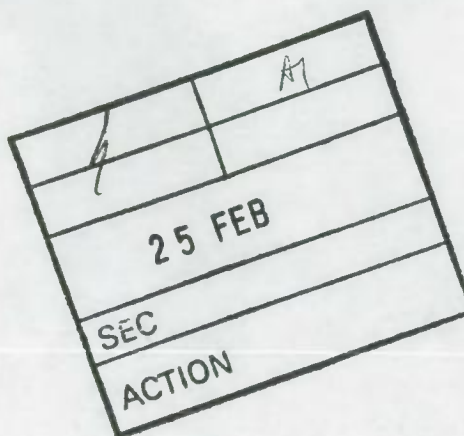


Plate 19. Skeleton (1256), detail of pathology.

Alastair Tindle
Patrick Parsons Limited
39 St Georges Terrace
Newcastle upon Tyne
NE2 2SX



24th February 2004

Re: Archaeological Watching Brief, Barbican Centre Atrium, York

Dear Alastair,

Further to your letter and our telephone conversation regarding the archaeological implications of the proposed development, I am writing to confirm that, having spoken to John Oxley at City of York Council, the only archaeological requirement will be to conduct a watching brief during groundworks. I am therefore pleased to offer you the following quotation: -

Our rate for attendance on site is **£150.00** per 8 hour day. In this instance, given the proximity of the site to our office our minimum callout is £75. This figure is inclusive of all costs relating to the preparation of the appropriate on-site, written, drawn and photographic records and includes travel costs.

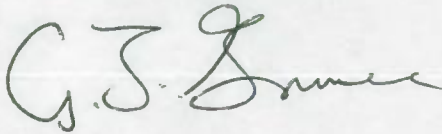
Experience has shown us that on projects such as this it can be the case that our presence is required intermittently over a number of days to supervise the excavation of foundations. We would therefore expect to only be on site when groundworks are actually being carried out and would be happy to conform to your working arrangements and timetable on a daily basis. It is both wasteful from your point of view and tedious from ours, for us to be on site when other types of construction work are being undertaken. You should advise your building contractor or site agent that if he can undertake all groundworks in a single phase of work that this will minimise any potential archaeological fieldwork costs.

You are no doubt aware that the City of York Council will require that a report is prepared on completion of the fieldwork. We charge the same daily rate for the production of this report as for the fieldwork phase, i.e. **£150.00** per day. If no archaeological features are uncovered during the watching brief the report will be completed in a single office based day. If complex archaeological deposits were recorded and a more detailed report was required, then the cost implication will be greater. It would be my intention to agree a price with you at the completion of the fieldwork phase, dependent on results, if that were acceptable to you. As I said on the phone the 19th century construction of the Cattle Market has severely truncated

much of the earlier archaeology, and the construction of the Barbican Centre itself is also likely to have had some impact on this area.

I hope that this information is of use to you. Please do not hesitate to get in touch if you require further clarification. It is our intention to satisfy the planning requirements as efficiently as we can on your behalf.

Yours Sincerely

A handwritten signature in dark ink, appearing to read 'G. J. Bruce', written in a cursive style.

Graham Bruce

N.B: The above quotation is exclusive of VAT and is based on standard 8-hour weekday working. Daily and weekend overtimes rates are x 1.5 the standard hourly rate.

Hello John.

I would be grateful if you could advise me on an issue regarding The Barbican. Condition 4 of approval 06/02632/FUL stated as follows:

No work shall commence on site until the applicant has secured the implementation of a programme of archaeological work (a watching brief on all ground works by an approved archaeological unit) in accordance with a specification supplied by the Local Planning Authority. This programme and the archaeological unit shall be approved in writing by the Local Planning Authority before development commences.

Reason: The site lies within an Area of Archaeological Importance and the development will affect important archaeological deposits which must be recorded during the construction programme.

The attached information was left with Mike Slater at a recent meeting but is correspondence from back in 2004 so I am assuming it is of no relevance to the above now. Please note that this permission relates to the refurbishment of the Barbican auditorium only and not the whole site so the archaeological issues are probably not as significant anyway. You have previously confirmed that a watching brief is all that is required here.

In a recent letter from Bill Wooley dated 15th October to Absolute Leisure re outstanding planning pre-conditions he said the following about this condition:

Condition 4 - Archaeology. This will require a watching brief and you will provide a letter of intent from a suitable archaeological professional.

Have you received anything in the last 2 weeks from Absolute Leisure in connection the above? (the attached info from 2004 was left with Mike Slater at a meeting prior to Bill's letter).

If confused (which you probably are cos I am) then contact me. A quick e-mail response would be appreciated ASAP please as apparently Cllr Vassie has a further meeting with AL tomorrow and wants to know whether anything has happened following on from Bill's letter. (I have only just found this out but I am leaving work at 1 ish today so if you could advise me before then that would be great so I can e-mail Bill and Cllr Vassie).

Thanks very much

Matthew.



Figure 1: Footprint of Proposed Development

Drivers Jonas Deloitte.

Agenda

North Yorkshire Fire and Rescue Service – Kent Street Site, York

Archaeology

Date: 18 April 2011
Time: 2.00pm
Location: City of York Council
Attendees: John Oxley (City Archaeologist, City of York Council)
David Craggs (Scott Wilson)
David Longfield (Aedas)
Mark Finch (Drivers Jonas Deloitte)
Distribution: As above plus Bob Hulmes (North Yorkshire Fire and Rescue Service); Joby Howard (Drivers Jonas Deloitte)

By whom

1. Introduction
2. Emerging Scheme Proposals
3. Archaeological Information
4. Foundation Design
5. Planning Process
6. Next Steps