

**North Walls, Stafford,
Staffordshire**

**A Post-Excavation Assessment
and Research Design**

2004

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North Walls, Stafford, Staffordshire

A Post-Excavation Assessment and Research Design 2004

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1.0 Summary

An archaeological excavation at North Walls, Stafford, Staffordshire (NGR SJ 9253 2324) was commissioned by Friel Homes. The work was undertaken by Birmingham Archaeology in July and August 2004, as part of a staged archaeological response to a planning application for the development of the site with the construction of residential accommodation. A broken sequence of activity was recorded, with a significant hiatus in occupation in the late medieval – early post-medieval period. The earliest deposits, a gully and a series of pits, dated to the late Saxon period. A possible pond identified may also date to this period.

The artefactual evidence suggests the pond was gradually filled in throughout the early medieval period, and eventually was sealed by a medieval soil layer dated to 1250 – 1300 AD that was present over much of the site. After this date, no evidence for activity or occupation on site was identified until the 17th to 18th centuries, when a large clay lined tanning pit was constructed on the site. Tanning was an important industry within post-medieval Stafford, and often located on the towns periphery.

The gap in the date range is significant as it occurs before the emergence of the plague, which decimated so many of the towns and villages during the medieval period. It is likely that detrimental environmental conditions led to the abandonment of the area.

2.0 Introduction

2.1 Background to the project (Fig 1 and 2)

This report outlines the results of an open area excavation on land at North Walls, Stafford (centred on NGR SJ 9253 2324), hereinafter referred to as the site. The site is situated close to the frontage along North Walls, a street which runs along the line of the medieval town defences and is currently unoccupied, the former buildings having been largely demolished.

A planning application for the construction of residential accommodation by Friel Homes led to a staged archaeological response. An evaluation was carried out by Birmingham University Field Archaeology Unit (BUFAU, now Birmingham Archaeology), and revealed the existence of two intercutting ditches running parallel to the line of the town wall (Duncan and Jones 2001). These were sealed by a series of layers of medieval date, which in turn were cut by a Post-medieval tanning pit (*ibid.*).

Subsequently an open area excavation was carried out by Birmingham Archaeology in July and August 2004. It was conducted in accordance with guidelines set down in Planning Policy Note 16 (Department of the Environment 1990). The work also conformed with a Brief prepared by the Historic Environment Officer for Staffordshire Council (Wardle 2004), a Written Scheme of Investigation by BArch

(Nichol 2004) and the Institute of Field Archaeologist's *Standard and Guidance for Archaeological Excavations* (1991).

The layout of this report has been prepared to the guidelines set out by English Heritage in the Management of Archaeological Projects (MAP 2).

2.2 Archaeological and Historical Background

Stafford appears in Domesday as the principal settlement in Staffordshire (VCH VI, 200), with a *burh* (fortified place) in existence by 913 (Wardle 2004, 4). It is believed that Saxon occupation was centred upon an island of Mercia Mudstone and gravel which was surrounded by alluvial deposits relating to the River Sow to the west and south, and marshes to the north and east (*ibid.*, 185). Three kilns producing Stafford Ware, dated to the 9th-10th centuries, have been excavated along the modern line of Tipping Street (Taylor undated, 3), which lies to the south. Evidence from the same series of excavations suggested that the town underwent a much more planned development in that area during the 12th and 13th centuries with possible burgage plots being laid out along the western side of Tipping Street (*ibid.*). A previous archaeological evaluation of the site revealed the presence of two inter-cutting ditches running parallel to the line of the town wall (Duncan and Jones 2001, 7). The ditches may represent the rear property boundary of burgages on the site, alternatively they may be associated with much earlier occupation relating to the Saxon *burh*. They were sealed by a series of layers of medieval date (*ibid.*).

The site itself is located on the outskirts of the medieval town, to the rear of the frontage on to North Walls, a road that runs along the line of the town defences. The precursor to this modern routeway is known to have been in existence by 1466 (VCH VI, 188). There are also 12th and 13th century references for Eastgate Street, immediately south of the site (*ibid.*), which led to the East Gate of the town. This road continues (as Lammascote Road) outside the town walls, and is believed to be of Iron Age origin (*ibid.*). Speed's plan of Stafford (dated to 1610) depicts the area of the site as being unoccupied, this may have been due to a contraction in population during the later medieval period a not uncommon occurrence in towns in this period. North Walls was known as Far Backwalls by the early 19th century, and officially named North Backwalls in 1838 (*ibid.*).

There are references up to and throughout the 16th century concerning the town's central role in county inquisitions, gaol deliveries and assizes, amongst other administrative duties. The fortunes of the town took a slight downturn in the early 17th century when Speed and later (in the early 18th century) Defoe described the town as being inferior to Lichfield (*ibid.*, 201). This aside, the town was one of the principal centres of footwear production in England from an early period. There are references to tanning taking place there by c.1300, shoemakers are first mentioned in a document dated to 1414, and a Shoemakers Guild had been established in the town by 1476 (VCH II, 230). The evaluation (Duncan and Jones 2001) also located a probable tanning pit of 17th century date, which may have been associated with this industry. Tanning is a notoriously noxious industry, and complexes were often situated on the outskirts of towns to minimise the impact of their bad odour on the local populace (Litherland and Williams *forthcoming*, Nichol and Rátkai 2004, and

Shaw 1996). A further reason for their peripheral location was that they also demanded a good water supply and, given the marshy nature of this side of the town, the situation of this site would have been ideal. There were several peaks and troughs in the shoe industry in Stafford, when the market was affected at various times by war, taxes, export and import duties, and cheap foreign imports. However, at its height, during the mid 1800s, there were twenty-nine shoe manufactories listed within the town, as well as 10 curriers and leather cutters, and one tanner (*ibid.*, 232). Significantly, a curriers yard is depicted on the site on the First Edition Ordnance Survey Map of 1881. Latterly a boot and shoe factory building was constructed on the site, highlighting the longevity and importance of the footwear industry within Stafford until recent times.

2.3 Aims

The overall aims of the excavation were to:

- Establish the relationship between this area of the town and the Saxon *burh*.
- Establish at what time during the medieval period this part of the town was occupied, and what the nature of that occupation was, particularly with regard to domestic arrangements, status of the occupants, and crafts and trades.
- Define the development of occupation within this area of the town by period.

More specific research aims were to:

- Define the date, character and extent of the two early ditches identified during the previous evaluation.
- Establish if there was any evidence for contraction of the population of the town in this area during the late medieval and early post-medieval periods.
- Identify whether the 17th century tanning pit was associated with the shoemaking industry in the town, and define the extent and importance of this complex.

2.4 Method

An open area of approximately 200m² was excavated as outlined in the brief (Wardle, 2004). All modern overburden was mechanically removed by a 360° excavator under direct archaeological supervision to the top of the first archaeological horizon, the series of medieval layers identified during the evaluation. This was then cleaned by hand, and the features identified at this level were sampled by hand excavation, comprising not less than 50% of discrete features and 20% of linear features. The medieval layers were also sampled during this stage of the excavation by the hand excavation of two sondages, that spanned the whole width of the site (Fig. 2).

Subsequently, the remainder of the medieval layers were then removed by mechanical excavator, again under direct archaeological supervision to the top of the next significant archaeological horizon, or to the top of the natural subsoil where no archaeology was present. The area was also extended in two places in order to

understand better features identified within the original area. This was again cleaned by hand and the features sampled by hand excavation.

Bulk environmental samples were taken where appropriate (as outlined in Ciaraldi, 2004). Where significant waterlogged remains occurred, these were subject to a separate sampling strategy devised in consultation with Ian Wykes of the Historic Environment Department of Staffordshire County Council Development Services Department and Lisa Moffett, West Midlands Regional Science Advisor for English Heritage. This included pollen column samples being taken from the waterlogged deposits, and a profile through the waterlogged feature being obtained with a series of auger holes.

Recording was by means of pre-printed pro-formas for contexts and features, supplemented by plans (at 1:10, 1:20 and 1:50), sections (at 1:10, 1:20 and 1:50), monochrome and colour print, and colour slide photography. A base plan was created using fast-map and EDM survey equipment.

The site archive will be prepared according to guidelines set down in Appendix 3 of the Management of Archaeological Projects (English Heritage, 1991), the Guidelines for the Preparation of Excavation Archives for Long-term Storage (UKIC, 1990) and Standards in the Museum Care of Archaeological collections (Museum and Art Galleries Commission, 1992). It is intended to deposit the paper and finds archive with the Potteries Museum and Art Gallery, Stoke-on Trent, with the prior notification and agreement of the museum. The Conditions for the Acceptance of Archaeological Material from Excavations and Fieldwork, as stated by the museum, will be adhered to.

3.0 Results (Plate 1)

3.1 Phasing

The results of the excavation can be placed into six broad phases of activity on the basis of the date of the pottery and the principles of archaeological stratigraphy.

Phase 1: Undated

Phase 2: Late Saxon

Phase 3: Early to Mid-Medieval

Phase 3a: 12th – 13th century

Phase 3b: 13th – 14th century

Phase 4: Post-medieval

Phase 5: Modern

3.1.1 Phase 1 (Undated)

Activity relating to this period was principally found at the northeastern end of the excavation, and was characterised by a series of possible pits and irregular features that were interpreted as undulations in the natural subsoil. The natural subsoil itself (1001) appeared to slope downwards from northeast to southwest. The fills of these features were clean and sterile and contained no artefacts or charcoal.

3.1.2 Phase 2 (Late Saxon?)

At the northeastern end of the site a series of very large, shallow scoops were identified in the sections of the sondages that spanned the width of the site (1020 Fig 3/1032, 1033). The fills of these scoops were similar to a series of layers identified further to the south, and may represent the same phase of activity, a process of levelling rather than the infilling of deliberate cuts. Pottery recovered whilst cleaning these features may have been from the overlying layers.

Activity relating to this period was also principally found at the northeastern end of the excavation (Fig. 3). Three archaeological features were spot dated to this phase, a small northwest-southeast aligned linear ditch (F112/1021, F122/1042 and F123/1043) and a large sub-circular pit (F136/1069/1070 Plate 2) which was cut by a second large pit (F132/1061). All these features cut the upper fills of the large scoops (1020 Fig. 3).

A fourth feature (F124/F129 Plate 3) that may also date to this phase was a large waterlogged cut, interpreted as a possible pond, the edge of which was exposed at the south-western end of the site and which continued beyond the edge of the excavation. Along the northern edge of this cut a series of layers were identified which were interpreted as a possible buried soil (1025 Fig. 4, 1047 and 1038) and redeposited natural bank (1031 Fig. 4, 1037 and 1046). The bank appeared to have partially slumped into the cut to form part of the infill. No finds were recovered from these deposits.

3.1.3 Phase 3 (Medieval)

The majority of features identified during the excavation date to the early and middle medieval period, and within this two distinct sub-phases of activity were identified with the aid of pottery spot dating.

Phase 3a 12th -13th century

Phase 3a was characterised by a series of features that were mainly concentrated at the northwest end of the excavation (Fig. 3). These included several small post-holes (F120, F121, F128 and F130) and a smaller pit (F110, 1017 1018 1019) that was identified cutting the upper fill of the large Phase 2 pit (F136).

It is likely that the large cut (F124/F129) was finally infilled during this period (1031, 1044, 1045, 1054, 1055, 1056, 1060, and 1062). A shallow, U-shaped ditch was identified cutting its upper fills and running parallel to its northern edge (F115 1027/1028/1029/1030/1045). Late Saxon pottery was recovered from the upper fills of the ditch (F124), though given its position in the stratigraphic matrix it is likely to be residual. A line of broken sandstone blocks (F139) was also identified cutting the upper fills of the large cut (F124/F129), and both the ditch and line of sandstone blocks may have been associated with possible drainage.

A green, cassy, silty-sand layer (1039) was identified overlying the upper fills of the possible pond (F124/F129 Fig. 4) which produced a small amount of late 12th early 13th century pottery.

Phase 3b 13th – 14th century

Phase 3b was dominated by a buried soil layer (1002/1026 Fig. 4) which was a brown grey sandy silt and from which significant amounts of pottery were recovered. This layer extended across the whole of the northwestern end of the site, but was not present at the southeastern end, probably due to modern truncation in the vicinity of the later standing buildings. Where it was present it varied in depth, becoming deeper at the southern edge of the excavation. Lenses were identified within these layers, but they were not continuous throughout the deposit and have therefore been incorporated into the two main layers for the purposes of this report.

Central to the area, and running under the northern limit of the excavation was a possible pit or butt-end of a linear (F113 1024). A second northeast – southwest-aligned linear ditch was identified at the southeastern end of the site (F119 1036). Pottery was recovered from linear F113, which was spot dated to the 13th-14th century.

3.1.4 Phase 5 (Post-Medieval 17th – 18th century)

Activity relating to the post-medieval period included a large, clay lined tanning pit (F100, 1004/1005 Fig. 5 Plate 4), a second clay filled pit (F101) and the truncated remains of three wall foundations (F102, F103 and F107). The fills of the wall foundations included modern debris, but the foundations themselves were earlier, relating to the post-medieval buildings or factories known to have originally fronted North Walls Road. Two undated post-holes were identified beneath the fill of wall foundation F107 (F105 and F106). These features were all identified cutting the medieval layer 1002. A sub-rectangular pit, with an irregular profile was identified central to the area (F109).

3.1.5 Phase 6 (Modern)

Substantial areas of modern disturbance were identified, mainly at the southeastern end of the site, these relate to the demolition and site clearance of the previous standing buildings. A comparison with the stratigraphic evidence recorded from the evaluation indicates that the site had been significantly reduced, and a layer of crushed brick and stone hardcore had been laid over the whole of the site.

3.2 Discussion

A broken sequence of occupation and activity on the site from the late Saxon period was recorded, with very precise and very significant cut off points. The excavated evidence suggests that there was some activity on the site during the late Saxon period, though no structural evidence was identified that might imply occupation. If the large waterlogged feature was originally cut during this period, it may have been related to as yet unidentified industries or water management. A sequence of deposits relating to the infilling of a post-glacial hollow, now known as the King's Pool located to the south-east of the site under Asda supermarket, showed a renewal of human activity during the Anglo-Saxon period in this area (Pearson et al 1999). The

site of a bridge possibly dating to the 13th century, thought to span what was probably the pond bay of the King's Pool, is shown immediately outside the East Gate on a late 16th century plan of Stafford (SMR 00784), also located to the south-east of the site. It is possible that the possible pond is related to water management systems associated with the Kings Pool.

The sequence of deposits identified through the King's Pool also suggested that during the medieval period the area may have been used for industrial activity of flax and hemp processing (Pearson et al 1999). This again correlates with the environmental evidence recovered from this site.

During the 12th – 13th centuries when Stafford was undergoing a planned development as suggested by excavations to the south, the site itself appears to have been left open. Pottery from the fills of the large cut suggest that it finally silted up during this period, and pottery from the overlying ploughsoil has a very specific date of 1250-1300, suggesting that after this date the area was not used as backplots or agriculture.

The date in itself is significant. During the medieval period, due to causes such as the plague, it was not uncommon for towns and villages to shrink considerably. It can be seen, however, that the abandonment of the site occurred before this date, and so an alternative hypothesis for the abandonment must be found.

From the undisturbed nature of the medieval ploughsoil deposits it can be surmised that the site was not intensively occupied, and that occupation itself may not have continued into the later post-medieval period.

The identification and secure dating of the tanning pit to the late 17th – mid 18th century proves that for a while at least, this important Stafford industry was present within the site.

Given the waterlogged and swampy nature of the area as a whole, such as the marsh deposits identified during a trial excavation in the car park to the north-west of the site (SMR 03179), it is entirely possible that it was unfavourable environmental conditions that led to the abandonment of the site, and it was not until much later in the 17th century that the land became habitable again, either through a change in the environment or better water management systems.

4.0 Assessment

4.1 The Paper Archive

Table 1 Excavation Archive

MATERIAL	QUANTITY	
	Evaluation	Excavation
Context Record Sheets		77
Feature Record Sheets		40
Plans and Section Drawings		44
Colour Slides		126
Colour Prints		104
Black and White Print Sheets		2
Survey Information (sheets)		2
Environmental Sheets		
Database		
Assemblage Summaries		25

Table 2 Documentary Archive

MATERIAL	QUANTITY
Misc. Documentary Research	7
Misc. Developers Plans	2
Desktop Assessment	
SMR Printouts	47 (x2)
Service Location Plans	4
Ground Investigation Report	1
Risk Assessment	1

4.2 Stratigraphic Data

As described above, the features and deposits on site have largely been dated principally through ceramic spot dating. Presently undated features may be phased through further analysis and definition of the stratigraphic sequence and their morphology. This will contribute to the research aims laid out in Section 2.2 and revised in Section 5.0 below.

4.3 Artefactual Data

Table 3 Finds Quantification

MATERIAL	QUANTITY	
	Excavation	Evaluation
Brick/Tile/Fired Clay	50	4
Stone	1	
Post-medieval Pottery	15	1
Medieval Pottery	146	9
Iron	5	
Animal Bone (in grams)	3932g	1997g
Wood	1 (4g)	
Shell (in grams)	32	

4.3.1 Pottery by Stephanie Rátkai

Table 4 Pottery Spot Dating and Quantification of Pottery (by sherd count)

Context	Feature	Date	Stafford Ware	Iron-rich unglazed	Iron-rich glazed	Iron-poor unglazed	Iron-poor glazed	Whiteware unglazed	Whiteware glazed	Post-medieval	Roof tile	Total
1002		c 1250-1300	3	23	16		1	1	4	1	1	50
1002		e 13th c	1	1	2							4
1004	100	late 17th-mid 18th c								3		3
1008	102	e 19th c								2		2
1009	103	17th-18th c		2						1		3
1013		13th c?		1								1
1017		late 12th-e 13th c		2	1							3
1024	113	13th-14th c			1							1
1026		c 1250-1300	2	18	11	8	5	3	13	1	3	64
1029		late Saxon	1									1
1039	129	late 12th-e 13th c		1	6							7
1042	122	late Saxon	2									2
1045	124	18th c	1				1			1		3
1054	129	12th c?		1								1
1055	129	12th c?		1								1
1056	129	12th-13th c		1								1
1061	132	late Saxon	1									1
cleaning	114	m13th-14th c				1			1			2
u/s					1				1	2		4
u/s				1					1			2
u/s					1							1
u/s		m/l 17th-e 18th c								1		1
	109	17th-?18th c	1		1					1		3
Total			12	52	40	9	7	4	20	13	4	161

Method

The pottery was examined macroscopically and divided into broad fabric groups (See Table 4). There were 161 sherds of which 12 were post-medieval and 4 were roof tile fragments. Each context was spot dated.

Results

The assemblage mainly comprised Late Saxon Stafford Ware and Post-Conquest pottery of the 12th-14th centuries. The post-medieval sherds were made up of 17th or 18th century yellow ware, trailed slipware, blackware, coarseware, slip-coated ware, mottled ware, agate ware and 19th century industrial slipware.

Stafford Ware was the only pottery found in contexts 1029, 1042 and 1061 and was found residually in 1002, 1026, 1045 and from within the fill of F109. The rim sherd from 1061 was a particularly gritty version of Stafford ware.

There was no pottery which could be said with any certainty to date to the later 11th – mid-12th centuries, although it is possible that some of the iron-rich unglazed cooking pot sherds could date to this period. Further microscopic analysis of the sherds and comparison with pottery from Stafford College and Stafford Castle is necessary to establish the likely date of this material.

There were several examples of early glazed wares, however, dating from the second half of the 12th century or early 13th century. The most surprising of these were five or six Worcester-type glazed ware sherds from 1002 and 1039, possibly from the same vessel, and two unstratified sherds. A very small amount of this ware was found at Stafford Castle. The other early glazed ware was represented by sherds of Stafford green-glazed pitcher ware, identified by Ford (1995).

Whitewares, both glazed and unglazed, which are generally assumed to have been produced from about the middle of the 13th century, were found mainly in 1026. Amongst these were two examples of red-painted whiteware, which is more commonly found in southern Staffordshire.

There were no examples of late-medieval or early post-medieval pottery, suggesting that occupation in this area or disposal of rubbish in this area did not occur in the 15th and 16th centuries. A similar cessation in the ceramic sequence was noticeable at Stafford College (Rátkai forthcoming) and may reflect shrinkage of the town during this period.

Recommendations

The pottery deserves further study, despite the small assemblage size, because it provides useful comparanda for pottery recovered from the Stafford College and Epsley's Mill sites.

It also helps in the understanding of the topography, function, land use and development and/or decline of Stafford in the late Saxon and medieval periods

4.3.2 Animal Bone *By Emma Hancox*

Method

The mammal bones were assessed following the standard protocol of Birmingham Zoological Laboratory, which is based on a modified version of the system described by Albarella & Davis (1994) and Davis (1992). This system considers certain anatomical elements as 'countable'; it does NOT include every bone fragment that is identifiable. The recordable skeletal elements considered are as follows: all the teeth, the skull (zygomaticus), scapula (glenoid articulation/cavity), distal humerus, distal radius, proximal ulna, carpals 2-3, distal metacarpal, pelvis (ischial part of the acetabulum), distal femur, distal tibia, calcaneum (sustentaculum), astragalus (lateral part), naviculo-cuboid/scafocuboid, distal metatarsal, proximal phalanges 1-3. At least 50% of the specified area has to be present to be 'countable'.

Horncores are considered as 'non-countable' elements using this system, however, they are recorded separately as noteworthy 'non-countables', along with any bones displaying evidence of butchery, pathology, burning or gnawing and any unusual species. These elements are not included in any statistical analysis.

The following skeletal elements were considered 'countable' for birds: scapula (articular end), proximal coracoid, distal humerus, proximal ulna, proximal carpometacarpus, distal femur, distal tibiotarsus and distal tarsometatarsus. All fish bone fragments were considered to be 'countable'.

Measurements are not taken at the assessment stage, it is merely noted whether it is possible to take them. Measurements follow von den Dreish (1976) and Dobney *et al.* (1996). Most bones were identified to species. The sheep/goat, horse/donkey and chicken/pheasant/guinea fowl distinction was not attempted at this stage. Mandibles with recordable wear stages were noted, again these are not recorded at the assessment stage.

Results

All of the assemblage that was considered here was hand collected. The state of preservation was mostly poor, with poor cortical integrity (exfoliation of the outer layers of the bone surface). The majority of the assemblage was fragmented, with few contexts producing complete or almost complete bones. This led to there being no measurable bones or teeth. No pathology, gnawing or burning was noted. Butchery was recorded in two contexts. However, the poor quality of the bone could have masked other evidence of butchery, gnawing or pathology. Some 28 countable elements were noted along with 12 'non-countable' horncores from 9 contexts out of the 13 containing bone. No measurable bones and teeth or ageable mandibles were recorded. The predominant species was horse/donkey (10/28 elements), followed by dog (9/28), cattle (8/28) and Sheep/goat (1/28). The dog bones probably relate to a

single animal. There was a predominance of cranial and lower leg bones across the assemblage.

Discussion

The high number of horncores in such a small assemblage, and the predominance of cranial and lower leg elements, suggest that the material is industrial in nature, related to the working of bone and antler. However, no evidence of worked bone was recovered, suggesting that the workshop was not onsite but in the vicinity, with this area being a dumping ground for the waste products.

The large number of equid bones could suggest that horses were being dismembered here. Horses which had come to the end of their working life were often slaughtered, with their remains being used to make glue or feed hunting dogs (Wilson and Edwards 1993, Thomas and Locock 2000). There is no direct evidence for this here as no butchery or canid gnawing was noted on any of the equid bones. However, most of the bones were in very poor condition and any such evidence would probably have been destroyed. Other sites in Stafford have produced evidence of horses being used in this way (Murray 2001 and Hancox 2004).

Recommendations

As the assemblage is so small and no measurable bones were recorded, it is of little archaeological potential and no further work is recommended.

4.3.3 Charred Plant Remains *By James Greig*

Table 5 Features sampled for charred plant remains

Feature	Context	Sample nr	Analysis	Content
F100	1004	1	flot	poor
F100	1005	2	flot	fair
	1002	4	flot	fair
F122	1042	7	flot	fair
F132	1016 (or 1061?)	10	flot	fair/good
F136	1070	15	flot	good; many uncharred remains
	1039	18	flot	good; many uncharred remains

Method

The seven samples assessed for charred plant remains had already been sieved, floated and the flots dried. A 10l sample size was used for this, though bulk samples of 20l had been taken from each of the contexts. The flots were sorted by the writer under a stereo microscope, and the remains identified and listed in Table 6 below.

Results

The seven flots were mostly fairly productive and contained a range of charred cereals and peas which might provide an indication of the foods then consumed in Stafford. *Triticum* (wheat) was the main cereal in most samples, with varying amounts of *Hordeum* (barley), *Avena* (oats) and some possible *Secale* (rye), and *Pisum* (pea). The grain was unaccompanied by chaff or many weed seeds, suggesting that it was cleaned ready for use. This range of remains with plenty of charcoal suggests the ashes of domestic fires. A range of waste had probably been put on the fire, such as small amounts of wasted food grains and the remains of meat and fish, leaving traces unburnt at the fire's edge along with some wood charcoal.

There were some waterlogged plant remains in several of the flots such as *Sambucus nigra* (elder), the seeds of which are tough enough to withstand some decay, and *Sonchus* (sow thistle). Two of the samples also contained many waterlogged remains; F136, 1070, had quite a large waterlogged flora, together with a few charred remains. This flora consisted of a range of plants of weedy and damp habitats and suggests that household and other rubbish collected in a damp or water-filled ditch or pit, perhaps at the edge of the area of town inhabited at the time. Layer 1039 contained a range of weeds including *Hyoscyamus niger* (henbane) which may have grown on rich ground, such as dung heaps, and some plants of damp ground and water plants. A few other classes of remains, such as animal bone and fish scales, fly puparia and animal hair were also present in small numbers in many of the samples, adding to the range of rubbish represented. Animal hair could be derived from leatherworking.

Recommendations

Most of the seven flots contained worthwhile amounts of charred plant remains, and some of them also contained waterlogged remains which could still be identified and counted, although for the latter dry sorting is far from ideal. These results show that such samples provide useful information about the nature of the site, and probably even more useful information on the lives of the people whose rubbish was deposited on the site, probably from elsewhere in the town. The results from these seven samples can probably be regarded as practically complete, although identifications have not all been done as exactly as possible. If there are other such samples yet to be analysed, the work should provide further useful results on the economy, and perhaps evidence of any changes with time. Samples such as F136 (1070) containing waterlogged remains could be re-analysed in an appropriate manner, and they would probably also yield pollen evidence.

It is recommended therefore that the other 10l of sample from each of the contexts sampled, and the full 20l from other datable contexts not included in this assessment are processed and analysed for the final report.

The exception would be the contexts with significant waterlogged remains, with these first being analysed in the appropriate manner for plant macrofossil, pollen and beetle remains before the remainder of the bulk being processed for charred plant remains.

Table 6 Plant list, names and order according to Kent (1992). * = charred remains

Sample:	1	2	4	7	10	15	18	
Sample volume, ml:		25	55	30	60	20	30	
<i>Ranunculus</i> sect. <i>Ranunculus</i>						8		buttercup
<i>Ranunculus sceleratus</i> L.						6	6	celery-leaved buttercup
<i>Ranunculus flammula</i> L.						1		lesser spearwort
<i>Ranunculus</i> subg <i>Batrachium</i> (DC) A. Gray						1	1	water crowfoot
<i>Urtica dioica</i> L.						8	18	common nettle
<i>Urtica urens</i> L.			1					small nettle
* <i>Corylus avellana</i> L.			1					hazel, nutshell
<i>Chenopodium</i> sp.						8		goosefoot
<i>Montia fontana</i> subsp <i>minor</i> Hayw.						1	1	blinks
<i>Stellaria</i> cf. <i>uliginosa</i> Murray							2	bog stitchwort
Caryophyllaceae				1	1			chickweeds etc
<i>Persicaria</i> sp.							1	persicaria
<i>Polygonum aviculare</i> L.						18		knotgrass
<i>Fallopia convolvulus</i> (L.) A. Love						1	1	black bindweed
<i>Rumex acetosella</i> L.						11		sheep's sorrel
<i>Rumex</i> sp.					1		10	dock
<i>Viola</i> sp.						1		pansy
cf. <i>Barbarea vulgaris</i> W.T. Aiton						1		winter-cress
cf. <i>Raphanus raphanistrum</i> L.	1							wild radish
<i>Rubus</i> sp.					1	1		? bramble
<i>Potentilla reptans</i> L.						1		cinquefoil
<i>Aphanes</i> sp.						1		parsley piert
* <i>Vicia</i> sp.			1					vetch
* <i>Pisum sativum</i> L.			2					pea
<i>Hydrocotyle vulgaris</i> L.						1		marsh pennywort
<i>Hyoscyamus niger</i> L.							11	henbane
<i>Galeopsis</i> sp.						2		hemp-nettle
<i>Sambucus nigra</i> L.	51	10	1	8			34	elder
<i>Cirsium</i> sp.							1	thistle
<i>Sonchus asper</i> (L.) Hill						1		prickly sow-thistle
<i>Sonchus oleraceus</i> L.		3	3				2	smooth sow-thistle
<i>Potamogeton</i> sp.							1	pondweed
<i>Lemna</i> sp.		1					43	duckweed
<i>Eleocharis</i> sp.						1		spike-rush
<i>Schoenoplectus</i> sp.						4		club-rush
<i>Isolepis setacea</i> R. Br.						1		bristle club-rush
<i>Carex</i> subg <i>Vignea</i>						2		sedge
<i>Carex</i> subg <i>Carex</i>						9	5	sedge
Cerealia		5	6	30	193	1		cereal grains
cereal culm					1			cereal straw

* <i>Triticum</i>				124	7	1	1	wheat
* cf. <i>Secale</i>	2	1		1	6			probable rye
* <i>Hordeum</i>				27				barley
* <i>Avena</i>			1		10		7	oats
* Poaceae			4	47				grasses
Other remains								
mollusc	+	+		+				
bone	+	+		+				
amphibian bone			+					
fish scale	+	+						
fly puparia		+					+	
animal hair							+	
charcoal	+++	+++	+++	+++	+++		+++	
coal	+		+					
lime	+	+	+				+	
brick	+							

4.3.4 Plant Macro Fossils *By James Greig*

Table 7 Features sampled for plant macrofossils

Feature	Context	Sample nr	Analysis	Content
F129	1054		waterlogged	no seeds present in 100 ml
F129	1060		waterlogged	a few seeds in 100 ml

Method

The two samples (F129, 1054 and 1060) assessed for waterlogged plant remains had a subsample of 100 ml measured out from each. Each was broken down in water, and the lighter, organic, fraction washed over to separate it from the inorganic material, and caught in a 500 µm sieve. This washover was sorted in water under a x10 stereo microscope.

Results

There were no plant remains in 1054 and very few in 1060, which contained a seed each of *Ranunculus sceleratus*, *Chenopodium* sp., *Polygonum* sp and *Rumex* sp. which suggest rather damp and weedy conditions.

Recommendations

The two waterlogged samples in this assessment were disappointing in their low organic content, but there are probably other more organic layers from this profile

which would be worth analysis, or at least investigation for seed content in the future. This potential was shown by the presence of seeds in the very small pollen samples.

The presence of organic material identified in the charred plant remain flot also suggests that other contexts within the site are worth analysing for plant macrofossil remains.

It is therefore recommended that the other contexts within the fill of F124, and the samples from F132 and F136 are analysed for the final report.

4.3.5 Pollen *By James Greig*

Table 8 Features sampled for pollen

Feature	Context	Sample nr	Analysis	Content
F129	1056	55 cm	pollen	pollen fair/good, seeds present
F129	1054	85 cm	pollen	pollen fair/good, seeds seen
F129	1060	115 cm	pollen	pollen very good, seeds seen

Method

A stepped monolith column was taken through the fills of the large cut F124. Pollen samples were assessed from the top, middle and base of this column.

Pollen samples were processed using the standard method; about 1 cm³ subsamples were dispersed in dilute NaOH and filtered through a 70µm mesh to remove coarser material, which was then scanned under a stereo microscope. Charcoal and seeds were seen in all of these sievings, with *Rumex* (dock) in the 85 cm, and *Juncus* (rush) in the 115 cm sample. The finer organic part of the sample was concentrated by swirl separation on a shallow dish. Fine material was removed by filtration on a 10µm mesh. The material was acetolysed to remove cellulose, stained with safranin and mounted on microscope slides in glycerol jelly. Counting was done with a Leitz HM-Lux 3 microscope. Identification was made using the writer's own pollen reference collection. Standard reference works were used, notably Fægri and Iversen (1989) and Andrew (1984).

The pollen types have been listed in taxonomic order according to Kent (1992) and named after Bennett (1994), in Table 9 below.

Results

The pollen samples from F124 contained plenty of pollen, especially the lowest one, with some interesting results. They show a somewhat different aspect of the picture already obtained of domestic rubbish accumulating in damp and weedy surroundings. There are signs of cereals possibly including *Secale* (rye) and cornfield weeds such as *Centaurea cyanus* (cornflower). The pollen probably did not come from cornfields themselves, but rather from products such as grain, straw or animal dung derived from these crops. *Linum usitatissimum* (flax) was present in the top sample. As flax contains very little pollen, the three pollen grains amount to considerable evidence of its presence, such as possibly flax retting in the cut. Cannabaceae pollen suggests another fibre crop, hemp, and a grain of *Pisum* (pea) adds to the signs of cultivated plants. All these are usual medieval crops. A single ovum of *Trichuris* (whipworm) was present, suggesting a rather low level of sewage contamination, so there is no sign that there were cesspits here.

A large range of weeds is present in the pollen, such as Chenopodiaceae, (fat hen, orache etc.) *Persicaria maculosa*-tp. (persicaria) and *Rumex* (docks). Many of them can grow in damp places, and may have existed on the spot. Grassland plants are less noticeable, although *Plantago lanceolata* and *P. major/media* (plantains) and *Centaurea nigra* (knapsweed) are present, perhaps representing grassland or animal dung.

Plants of wetland and damp ground such as *Polygonum bistorta*-tp. (bistort) were present, and the lowermost sample also had Cyperaceae (sedges). The rather small number of aquatic plants suggests that the feature was not permanently water-filled like a moat.

Trees and woodland mainly provide background, as their pollen is so well dispersed, so the small records of *Quercus* (oak), *Alnus* (alder) and *Corylus* (hazel) show that there were some trees in the general landscape as a whole. The records of Ericales (heathers) could either represent local heathlands, or heathery material brought to the site and eventually deposited there, or the dung of animals which had grazed on heathland. *Salix* (willow) in the lowest sample could represent somewhat more natural vegetation at the start of the succession.

There is some sign of possible environmental change through the sequence shown in these assessment results. The lowest sample has slightly more sign of natural damp vegetation in the records of *Salix* (willow) and Cyperaceae (sedges). The absence of *Centaurea cyanus* could represent a date earlier than around A.D. 1200 at the bottom of the profile, as cornflower seems to have become much more common after that date (Greig 1991). Finally, there are the signs of fibre plants flax and hemp which may have been processed nearby, in the middle and uppermost samples, suggesting a change in local activity.

Table 9 Pollen and spores, numbers and (percentages). Order after Kent (1992), names after Bennett (1994)

Sample	55cm	85cm	115cm	
Spores				
<i>Pteridium</i>		1	2	bracken
<i>Polypodium</i>	1	2		polypody
Pollen				
<i>Pinus</i>		1		pine
<i>Ranunculus</i> -tp.	3(2)	2	2	buttercup, crowfoot
<i>Cannabis</i> -tp.	2(1)	?		hemp, hop
<i>Quercus</i>	4(2)	4	5	oak
<i>Betula</i>	2(1)	2		birch
<i>Alnus</i>	8(5)	5	4	alder
<i>Corylus</i>	16(9)	10	5	hazel
Chenopodiaceae	2(1)	2	1	goosefoot
Caryophyllaceae	2(1)	3	1	stitchwort family
<i>Persicaria maculosa</i> -tp.	+	+		persicaria etc.
<i>Persicaria bistorta</i> -tp.	7(4)	2	1	bistort etc.
<i>Rumex</i> -tp.		6	3	docks and sorrels
<i>Tilia</i>			+	lime
<i>Salix</i>			4	willow
Brassicaceae	1(1)	9		brassicas
Ericales	6(3)	2	1	heathers
<i>Pisum</i>		1		pea
<i>Linum usitatissimum</i>	3(2)			flax, linseed
<i>Plantago lanceolata</i>	2(1)	5	6(5)	ribwort plantain
<i>Plantago major/media</i>	1(1)			greater/hoary plantain
<i>Campanula</i> -tp.			1	bell flowers
Rubiaceae	1(1)	1	1	bedstraws
Valerianaceae			+	valerian
Dipsacaceae	+	+		scabiouises
<i>Cirsium</i> -tp			+	thistles
<i>Centaurea cyanus</i>	4(2)	9(7)		cornflower
<i>Centaurea nigra</i>			+	knapweed
Lactuceae	8(5)	12(9)	5(4)	a group of composites
<i>Aster</i> -tp	9(5)	6	4	daisies etc
<i>Artemisia</i>	2(1)		1	mugwort
<i>Anthemis</i> -tp.	11(6)	1		mayweeds etc.
Cyperaceae			5	sedges
Poaceae	81(46)	45(34)	58(49)	grasses
Cerealialia-tp.	?	4(3)	11(9)	cereals
<i>Secale</i> -tp.		1		rye
Total pollen	175	132	119	
Parasite ova				
<i>Trichuris</i>				whipworm

Recommendations

The pollen from F124 showed that there are good results to be obtained which partly confirm and also add something to the picture obtained of economic life in Stafford from the seeds, with evidence of cereals, peas, hemp and flax. The sequence of F124 also seems to show some change through time, so the analysis of some more pollen samples at regular intervals through the profile would provide more, hopefully dated,

information on changes with time there, and perhaps the transition from the Saxon to the medieval period.

Other waterlogged deposits within the site also have the potential for pollen preservation. It is therefore recommended that further samples are analysed from F124, and also from features F132 and F136.

5.0 Updated Project Design

It is possible to restate, enhance and refocus the research aims as being to:

- Complete the characterisation of the site dating and function
- Define the morphology of the settlement remains, and to determine their development and chronology
- Contribute to an understanding of the layout of Stafford in the Saxon and Medieval periods.
- Examine the pottery chronology and compare the assemblage with those from similarly dated sites in Staffordshire, both rural and urban.
- Define the nature and duration of occupation on North Walls Road.
- Source the origins of supply for pottery and the degree to which this varies through time
- Compare the environmental evidence with that recovered from similar contexts of the same period in Stafford.

6.0 Archive Contents and Publication Synopsis

Archaeological Excavations at North Walls, Stafford, Staffordshire 2004

By Eleanor Ramsey

With contributions by Dr James Greig, Stephanie Rátkai and Dr David Smith

Illustrations by Nigel Dodds

Introduction by Eleanor Ramsey

500 words 1 figure

Aims and Method by Eleanor Ramsey

300 Words

The Site and its Context by Eleanor Ramsey

300 words

Description of Results by Eleanor Ramsey

500 words 2 figures

Interpretation of the Evidence by Phase by Eleanor Ramsey

2000 words

Saxon, Medieval and Post-Medieval Pottery by Stephanie Rátkai

1000 words 2 figures 2 tables

Charred Plant Remains by Dr James Greig

500 words 1 table

Plant Macrofossils by Dr James Greig

200 words 1 table

Pollen by Dr James Greig

700 words 1 table

Beetle Remains by Dr David Smith

500 words 1 table

Discussion and Conclusions by Eleanor Ramsey

2000 words

Bibliography

TOTAL 8500 words 5 figures 6 tables

It is proposed that the report will be published as

7.0 Task List

The task numbers below give the names of the individuals responsible for the completion of the task, and the number of days allocated.

	Person	Days
Overall project management	KN	1.5
Preparation of first draft	ER	5.0
Pottery		
a) Record Saxon and medieval pottery	SR	1.5
b) Write report	SR	1.5
c) Emendations/check drawings	SR	0.5
d) Illustration of pottery	BR	2
Charred Plant Remains (
a) Processing extra samples	DC	2
b) Sorting of flot and residue	JG	3
c) Plant identification	JG	3
d) Writing of report	JG	1
Plant Macrofossils		
a) Processing and sorting of samples	JG	2
b) Plant identification	JG	2
c) Writing of report	JG	1

Pollen

a) Preparation of pollen slides	JG	2
b) Plant identification	JG	2
c) Writing of report	JG	1

Insect Remains

a) Processing and sorting of samples	DS	2
b) Beetle identification	DS	4
c) Writing of report	DS	2

Editing/correction to specialist reports	ER	1
Preparation of first draft of discussion	ER	2
Editing of first draft	KN	1
Corrections to first draft	ER	1
Corrections to illustrations	ND	0.5
Final proof reading	KN	1
Final corrections to text/illustrations	ER	1
Submission of text	KN	1
Preparation of excavation and research archives	EMB	1
Deposition of archive	EMB	1

8.0 Costing

Name	Days Alloc	Total
University-based staff		
(ER) Eleanor Ramsey	10	£1250
(KN) Kirsty Nichol	4.5	£ 662
(ND) Nigel Dodds	2	£ 272
(BR) Bryony Ryder	2	£ 220
(DC) Dharminder Chuhan	2	£ 200
(EMB) Erica Macey-Bracken	2	£ 250
Sub-Total		£2854
External Project Staff		
(JG) James Greig	17 Samples	£2250
(DS) David Smith	5 Samples	£ 765
Sub-Total		£2854
Other Costs		
Travel and SMR costs for research		£ 114
Archive Deposition		£ 360
Publication		£1000
Admin and Overheads		£1569
Sub-Total		£2854
Grand Total		£9789

8.0 Acknowledgements

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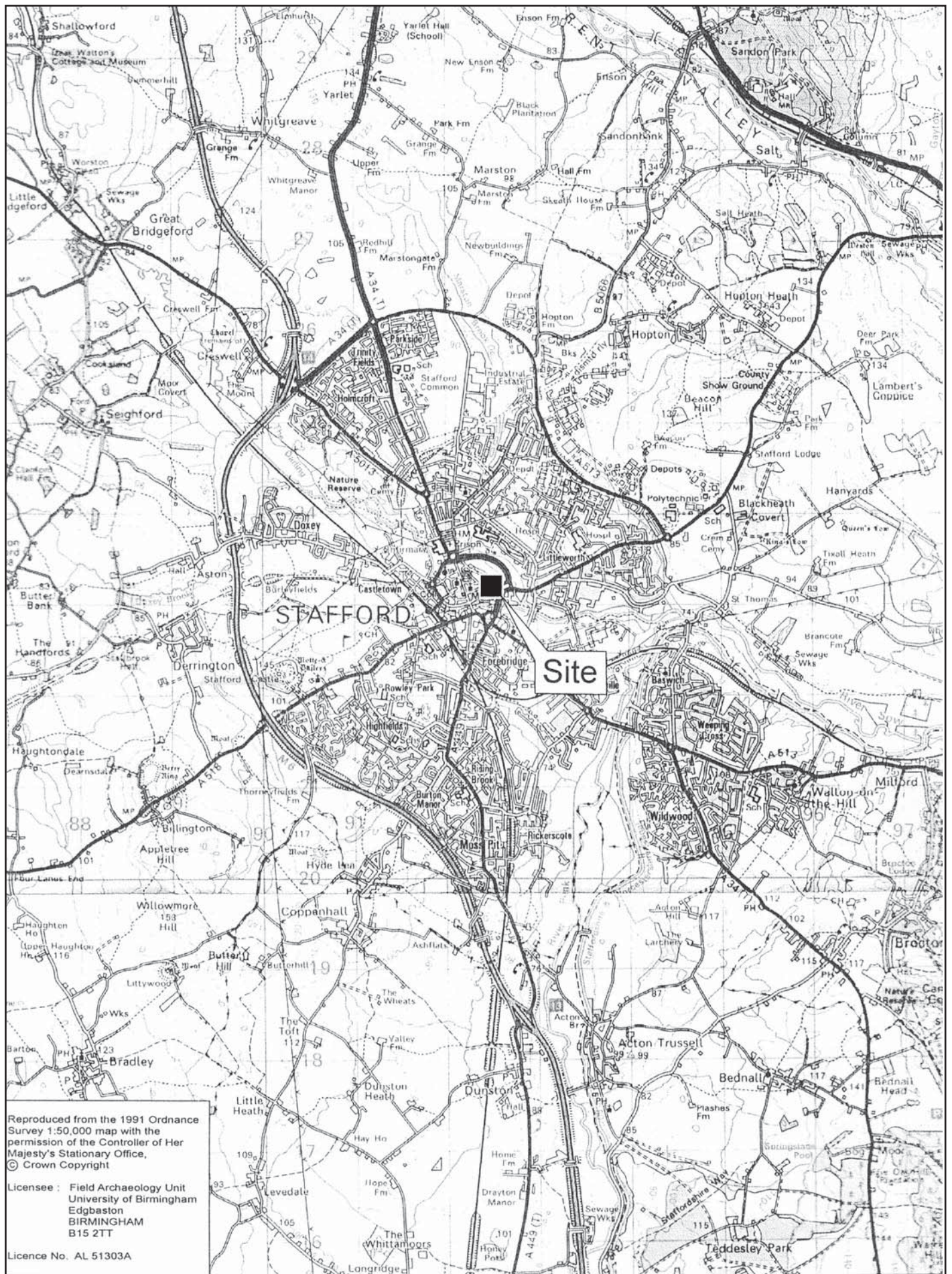


Fig.1

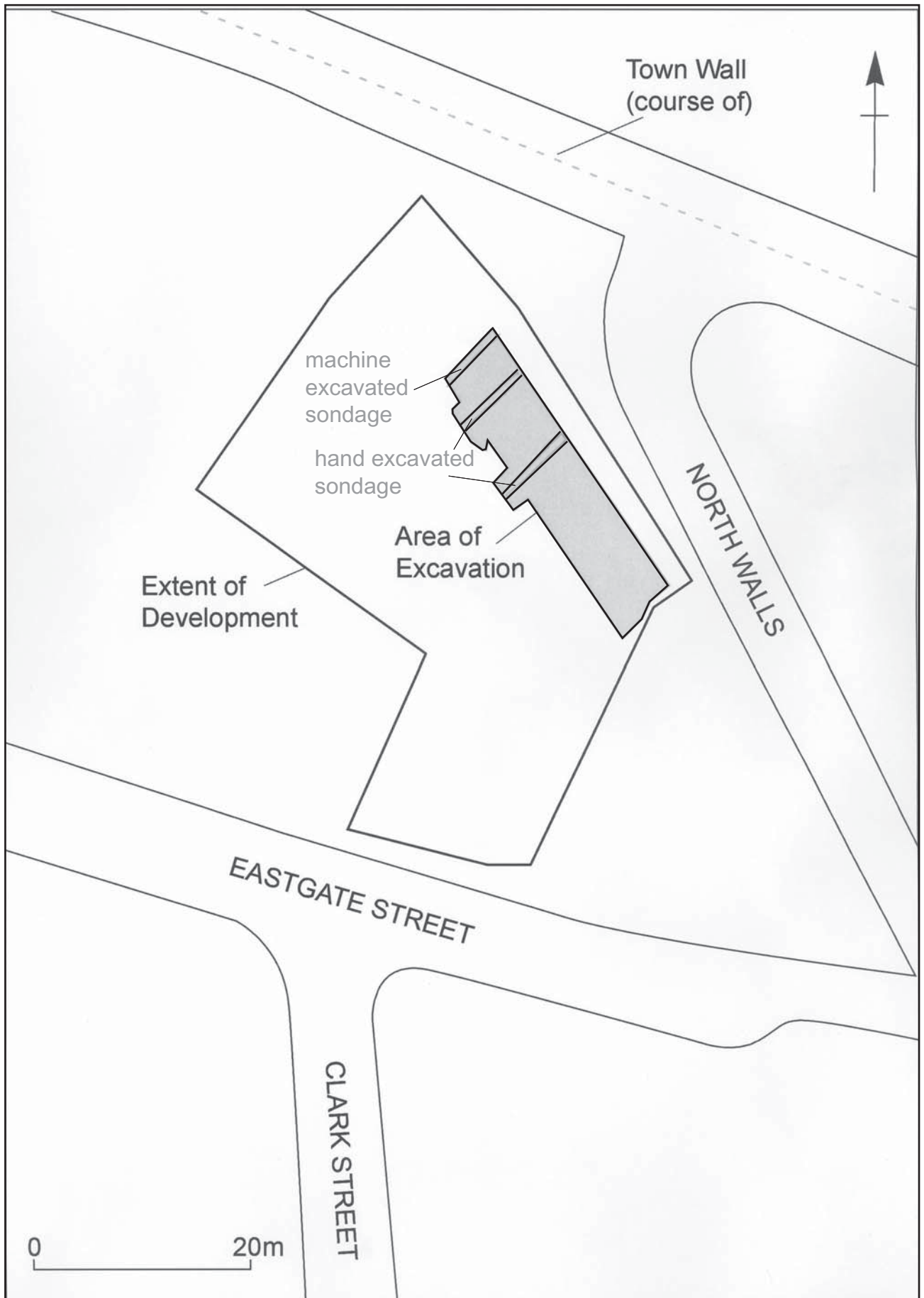


Fig.2

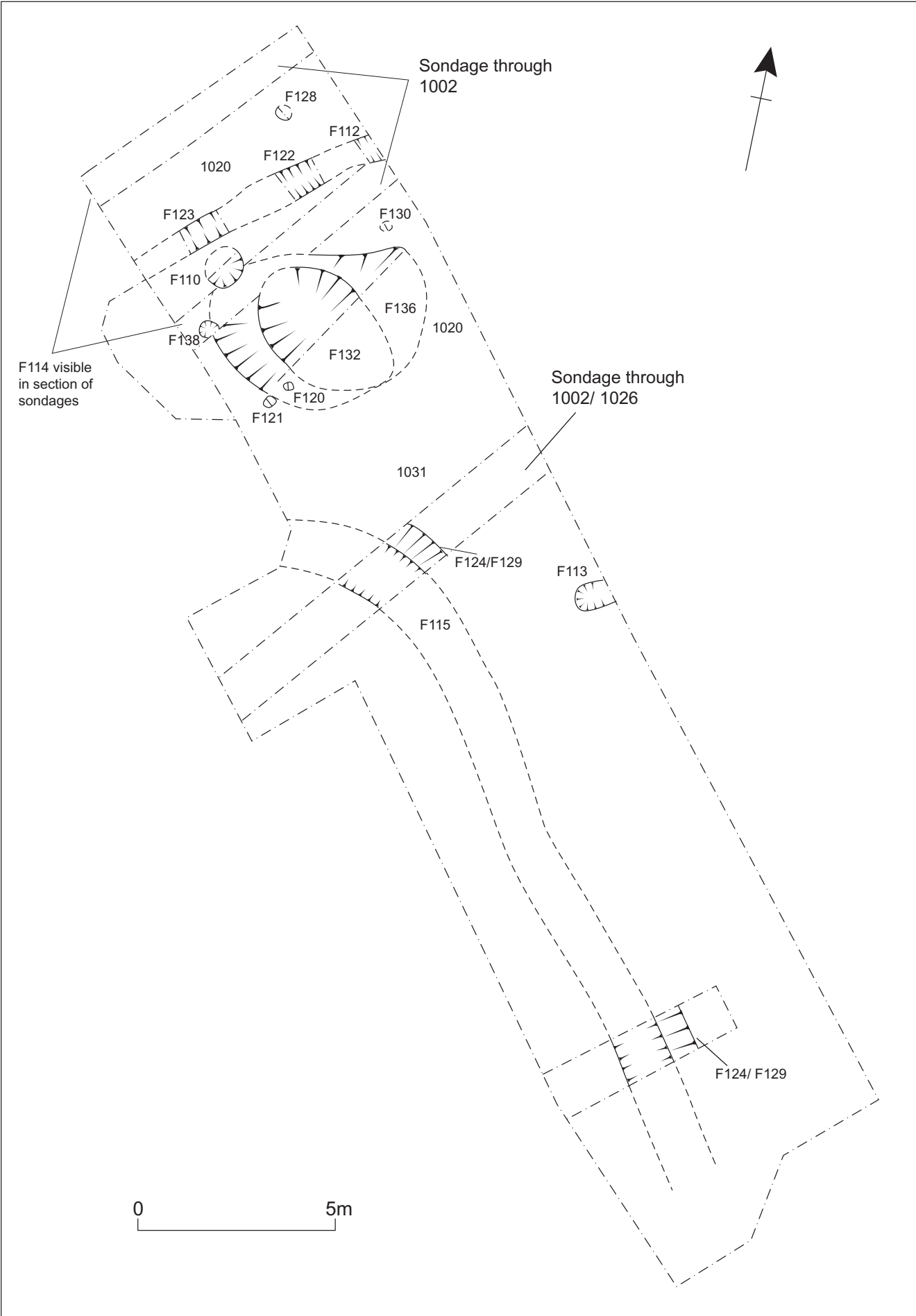


Fig.3 Saxon and Medieval

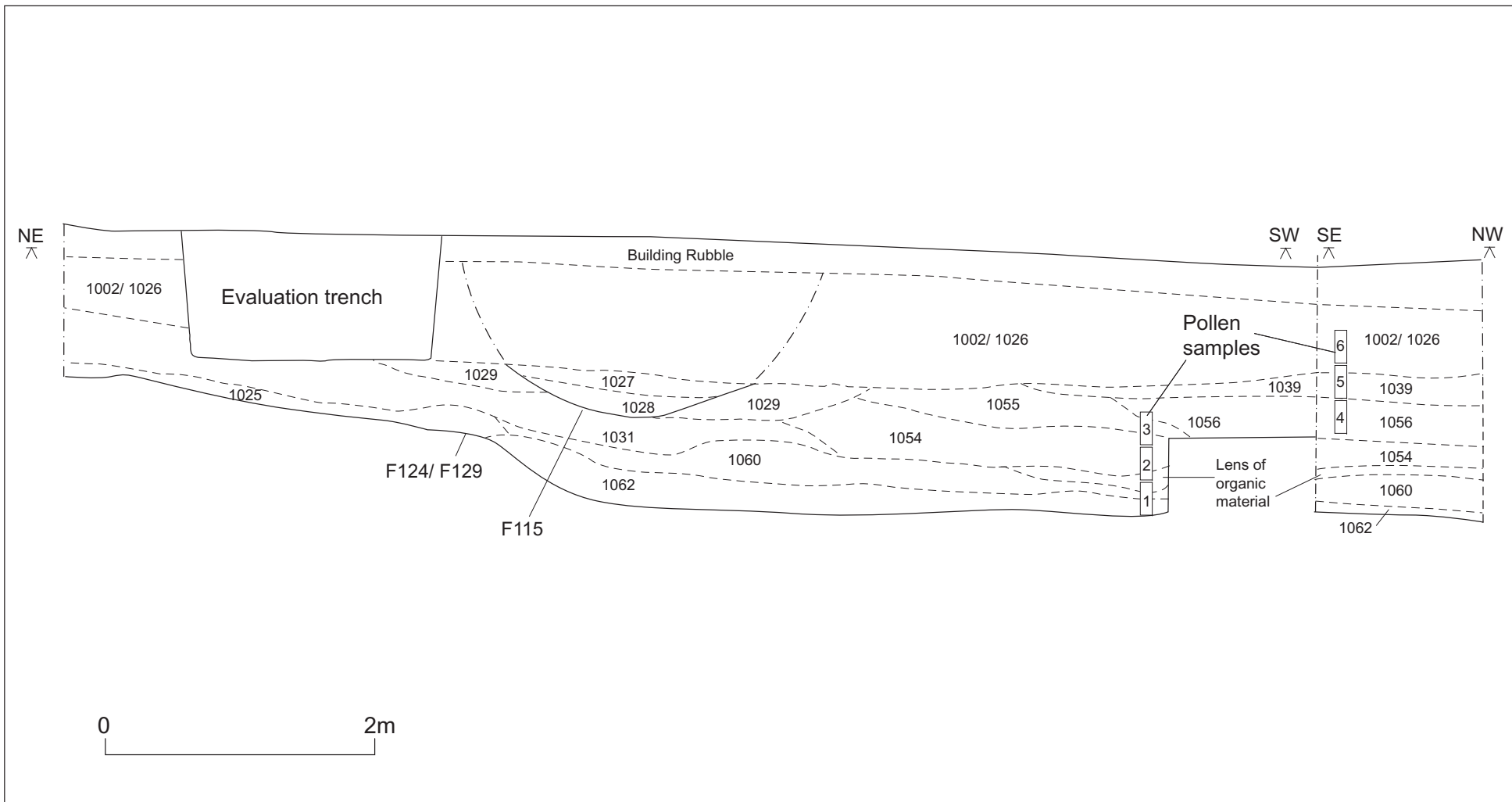


Fig.4

Composite section across pond

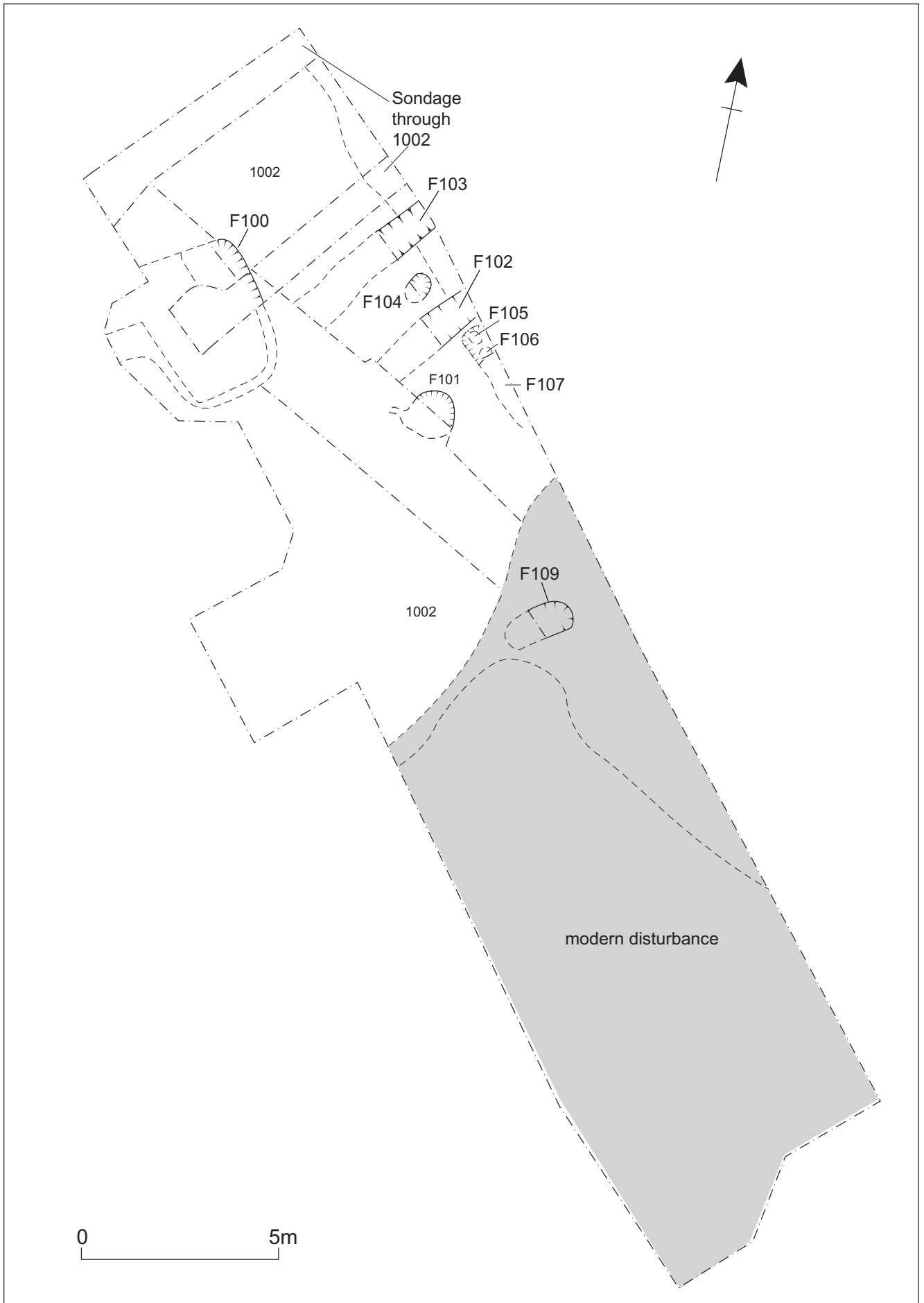


Fig.5 Post-Medieval

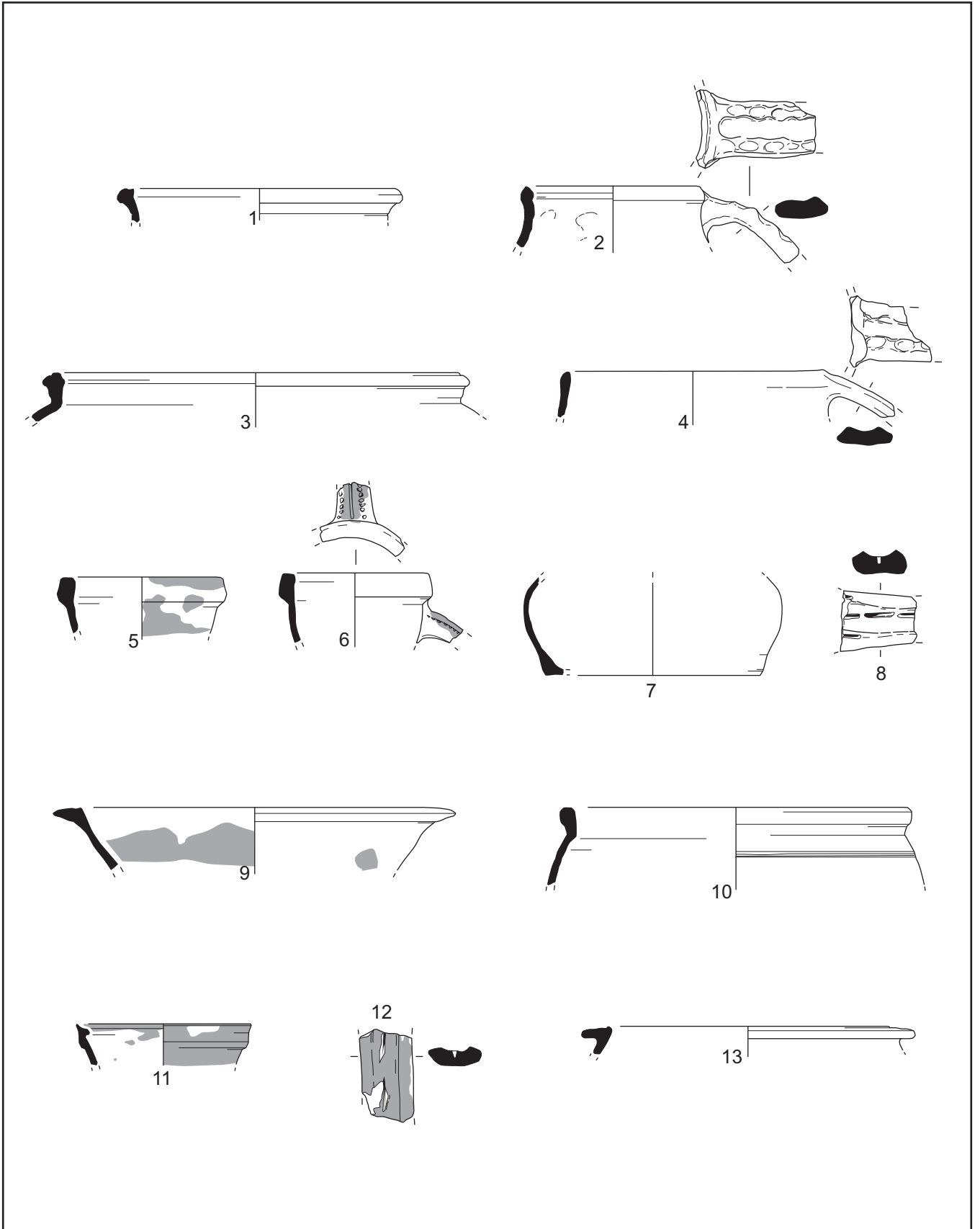


Fig.6

Stafford NWS F129

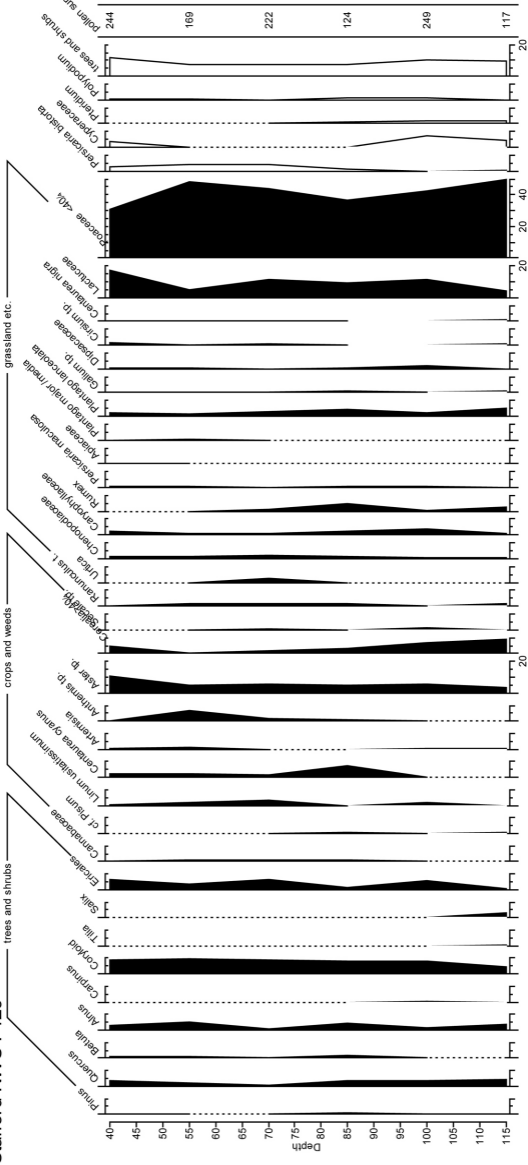
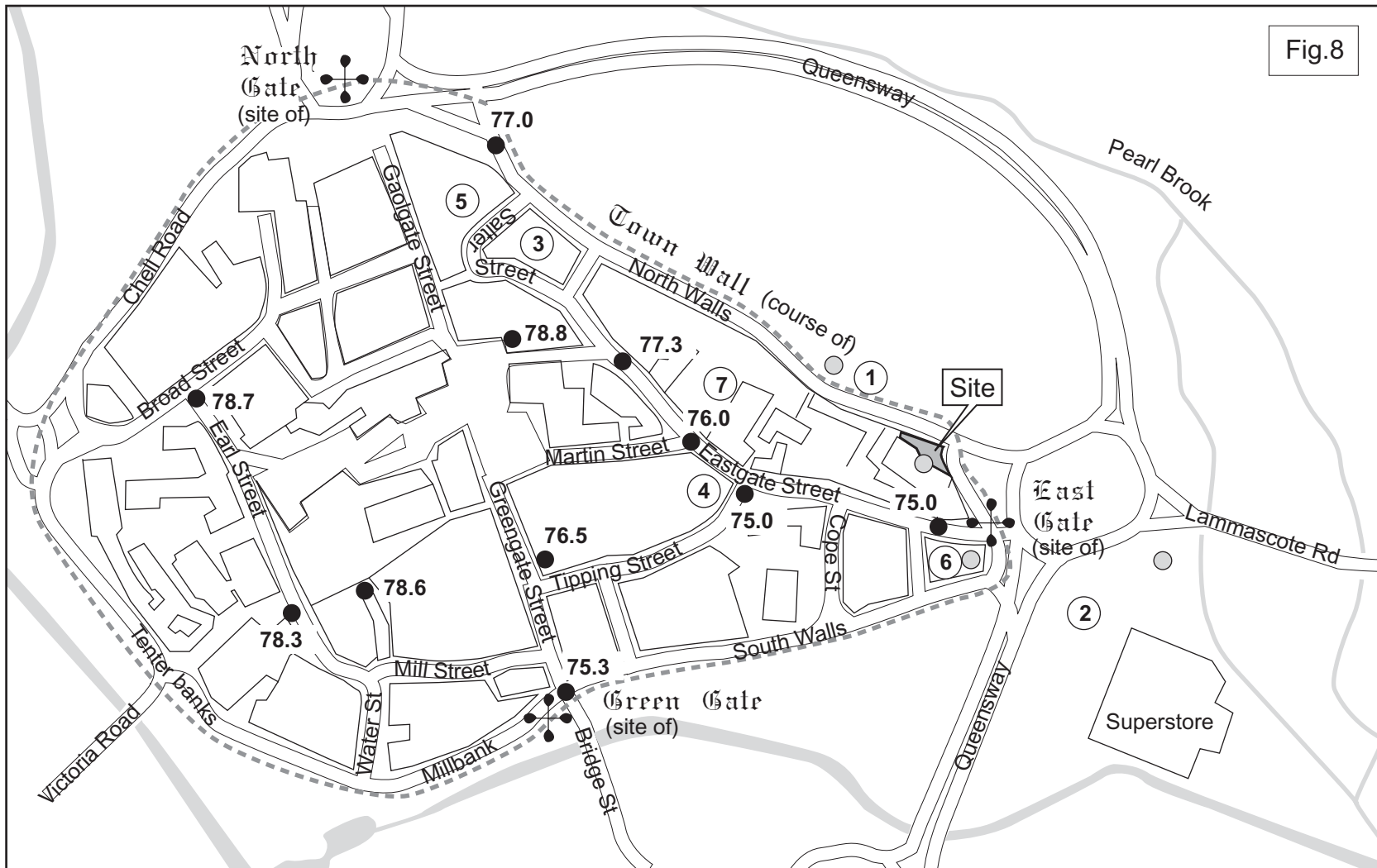


Fig.8



- | | | | | | |
|-----|----------------------------------|---|--------------------------------|---|-----------------------------------------|
| ① | Approximate location of site | ① | Evaluation at North Walls 1981 | ⑤ | Evaluation at Gaolgate Street |
| ⊕ | Site of Gate | ② | Various work, Lammascote Road | ⑥ | Excavation at Clark Street |
| ○ | Evidence of marsh | ③ | Evaluation at Salter Street | ⑦ | Key hole excavations at Eastgate Street |
| ● | Heights AOD from Ordnance Survey | ④ | Excavation at Tipping Street | | |
| --- | Approximate course of town wall | | | | |



Plate 1



Plate 2



Plate 3



Plate 4

NORTH WALLS TABLES

Table 1.

Fabric	Stafford Castle Fabric	Description
ip01	E12	buff-orange, occasionally reduced light grey, moderate coarse quartz and sparse fe oxide
ip02	E11	pinkish-orange-cream, similar to the above but with white sub-angular ?gypsum, inclusions.
ip03		buff-orange, matrix flecked with fe oxide, moderate fine-medium quartz.
ip04	C22/24	pale orange surface, white beneath glaze, mid blue-grey core, moderate medium quartz, hackly
ip05	C13	pale orange surface, white beneath glaze, mid blue-grey core, sparse fine quartz, possibly a variant of ip04
ipfe01	E07	mainly reduced with lightersurfaces and margins, moderate fine sand, sparse-moderate fe oxide
ipfe02	E31	pinkish surfaces, cream margins, grey core, sparse fine sand, moderate fe oxide up to 2mm
ipslag		pale grey fine fabric, large lump of vesicular slag visible in break.
ipu01		buff-pale grey, moderate red, iron-stained quartz, sparse iron ore, rare sandstone
ir01	F05	oxidised, sometimes with grey core, moderately sandy
ir03	F03	oxidised, dark grey core, very sandy
ir04		pale grey, fine sandy matrix, sparse quartz grains up to 0.25mm
ir05	F21??	oxidised surfaces, dark grey core, sparse fine quartz and organics
ir06	B14	oxidised surfaces/margins, grey core, moderate ill sorted quartz generally <0.25mm
ir07		fine orange-red fabric, rare quartz grains
iru01	D12	rounded quartz and rare sandstone, mid grey often with brown surfaces
iru02	D11	coarse, brown-grey fabric with mixed inclusions, including mudstone and quartz, possibly derived from Boulder Clay
iru03	D12	probably a finer variant of iru01
iru04		rare quartz and fe oxide, light brown surfaces, grey core
iru05		reduced ware, possibly a Deritend variant
iru07		reduced ware, possibly a Deritend variant
iru08		fine-moderate sand, grey-brown,overfired Stafford ware?
iru09		grey surfaces, brown core/margins, moderate coarse sand and fe oxide, ?Stafford ware variant
lmt01		orange fabric, sparse ill-sorted quartz, sparse-moderate organics
ww01	C11	white clay moderate, medium-sized, rounded quartz
ww02	C11?	buff,white, pale grey, moderated medium rounded quartz, sparse burnt-out organics
ww03	C12?	white, sometimes with grey core, sparse ill-sorted fine sand, rare sandstone
ww04	C12	reduced apart from surfaces and thin margins,abundant, fine sand, sparse fe oxide
ww05	C11	cream clay moderate, medium-sized, rounded quartz
ww06		buff-cream, blue-grey core, moderate medium iron-stained quartz, moderate fe oxide
ww07		white-pale pink, moderate fine iron-stained quartz, sparse fe oxide
Stafford ware		Iron rich, brownish-red clay, moderate fine-medium quartz
Developed Stamford ware	B03	fine white clay
Deritend ware		black surfaces, brown core, micaceous, sparse-moderate rounded fine-medium quartz

Table 2. Plant list, names and order according to Kent (1992).

	F100	F100		F122	F132	F136	
	1004	1005	1002	1042	1061	1070	
Flot Volume (ml)		25	105	100	30	40	
<i>Ranunculus</i> sect. <i>Ranunculus</i>					8	2	buttercup
<i>Ranunculus sceleratus</i> L. -					6	7	celery-leaved buttercup
<i>Ranunculus flammula</i> L.					1	2	lesser spearwort
<i>Ranunculus</i> subg <i>Batrachium</i> (DC) A.					1	1	Graywater crowfoot
<i>Urtica dioica</i> L.					8	19	common nettle
<i>Urtica urens</i> L.			1				small nettle
<i>Betula</i> sp.					1		birch
* <i>Corylus avellana</i> L.			1				hazel, nutshell
<i>Chenopodium</i> sp.					8,1*		goosefoot
<i>Montia fontana</i> subsp <i>minor</i> Hayw.					1	1	blinks
<i>Stellaria</i> cf. <i>uliginosa</i> Murray						2	bog stitchwort
Caryophyllaceae				2		1	chickweeds etc
<i>Scleranthus annuus</i> L. capsule						1	annual knawel
<i>Persicaria</i> sp.						2	persicaria
<i>Polygonum aviculare</i> L.					18	12	knotgrass
<i>Fallopia convolvulus</i> (L.) A. Love					1	1	black bindweed
<i>Rumex acetosella</i> L.					11		sheep's sorrel
<i>Rumex</i> sp.			1*	2*		14	dock
<i>Viola</i> sp.					1		pansy
cf. <i>Barbarea vulgaris</i> W.T. Aiton					1		winter-cress
cf. <i>Raphanus raphanistrum</i> L.	1						wild radish
<i>Rubus</i> sp.				1	1		bramble
<i>Potentilla erecta</i> (L.) Rausch						3	tormentil
<i>Potentilla reptans</i> L.					1		cinquefoil
<i>Aphanes</i> sp.					1		parsley piert
<i>Ornithopus perpusillus</i> L.						1	bird's-foot
* <i>Vicia</i> sp.			1		1		vetch
* <i>Pisum sativum</i> L.			2				pea
<i>Hydrocotyle vulgaris</i> L.					1		marsh pennywort
<i>Hyoscyamus niger</i> L. 11						11	henbane
<i>Galeopsis</i> sp.					2		hemp-nettle
<i>Mentha</i> sp.						2	mint
<i>Sambucus nigra</i> L.	51	10	3	12		34	elder
<i>Cirsium</i> sp.						1	thistle
<i>Sonchus asper</i> (L.) Hill-					1		prickly sow-thistle
<i>Sonchus oleraceus</i> L.		3	5			2	smooth sow-thistle
<i>Potamogeton</i> sp.						1	pondweed
<i>Lemna</i> sp.		1				43	duckweed
<i>Eleocharis</i> sp.					1		spike-rush
<i>Schoenoplectus</i> sp.					4	1	club-rush
<i>Isolepis setacea</i> R. Br.					1		bristle club-rush
<i>Carex</i> subg <i>Vignea</i>					2	2	sedge
<i>Carex</i> subg <i>Carex</i>					9	8	sedge
*Cerealia		5	7	131	38		cereal grains
*cereal culm				1	2		cereal straw
* <i>Triticum</i>			8	163	7	1	wheat
* <i>Secale</i>	2	1		7	18		rye
* <i>Hordeum</i>			1	27			barley
* <i>Avena</i>			3	43	2	7	oats
Poaceae			4*	47*		1	grasses
Other Remains							
Mollusca	+	+		+			snail shells
bone	+	+		+			bone
Amphibia			+				amphibian bones
	+	+					fish scale
Diptera		+				+	fly puparia
						+	animal hair
	+++	+++	+++	+++		+++	charcoal
	+		+				coal
	+	+	+			+	lime
	+						brick

* = charred remains.

Table 3. Pollen and spores from 2 samples (the microfossils from which are given in Table 2). Order after Kent (1992), names after Bennett (1994)

	1061	1070	
	F132	F136	
Spores			
<i>Pteridium</i>	1	5	bracken
Pollen			
<i>Quercus</i>	6	6	oak
<i>Betula</i>		1	birch
<i>Corylus</i>		3	hazel
Chenopodiaceae	3	2	goosefoot
cf. <i>Spergula</i>		1	corn spurrey
<i>Persicaria maculosa</i> -tp		1	persicaria etc.
<i>Persicaria bistorta</i> -tp	2	2	bistort etc.
<i>Rumex</i> -tp.		1	docks and sorrels
Ericales	1	4	heathers
<i>Linum usitatissimum</i>	1		flax, linseed
<i>Plantago lanceolata</i>	4	5	ribwort plantain
<i>Fraxinus</i>	1		ash tree
Dipsacaceae		1	scabiouses
<i>Centaurea nigra</i>	1		knapweed
Lactuceae	86	28	a group of composites
<i>Artemisia</i>		2	mugwort
<i>Anthemis</i> -tp.	2		mayweeds etc.
<i>Aster</i> -tp	3	10	daisies etc
Cyperaceae	27	17	sedges
Poaceae	65	58	grasses
Cerealia-tp.	13	27	cereals
<i>Secale</i> -tp	3	4	rye
Total Pollen	222	172	

Table 4. The faunal remains

Context	Preservation	Countable bones/teeth						Comments
		BOVID	OVID	SUVID	OTH	BIRD	FISH	
1002	Poor/fair							Chop marks
1004	Poor/fair	3				5		OTH=equid, 1 'non-countable' bovine horncore
1005	Poor/fair	3				3		OTH=equid, 4 'non-c' bovine horncores and 1 sheep horncore
1023	Poor	2	1					
1024	Poor							Cut marks
1043	Poor					1		OTH=equid
1054	Poor							2 'non-c' sheep horncores
1055	Poor/fair					9		OTH=dog (prob single animal), 2 'non-c' bovine horncores
1061	Poor					1		OTH=equid
u/s	Poor							1 'non-c' bovine horncore
Totals		8	1			19		

Table 5. The insect remains

Feature	136	129
Context	1070	1054
Sample	15	20
Processed Weight (kg)	10	10
Processed Volume (l)	10	10
COLEOPTERA		
Carabidae		
<i>Tachys</i> spp.	1	-
Staphylinidae		
<i>Stenus</i> spp.	1	-
<i>Aleocharinae</i> gen. & spp. Indet.	-	1
Scarabaeidae		
<i>Geotrupes</i> spp.	1	-
Chrysomelidae		
<i>Chaetocnema</i> spp.	1	-
Curculionidae		
<i>Notaris acridulus</i> (L.)	1	-