

FIELDWORK ON THE LINE OF THE CORPUSTY/SAXTHORPE LINK ROAD, 2001 A POSSIBLE TANNING OR RETTING COMPLEX

by Sarah Bates

with contributions by Val Fryer, Richenda Goffin and Lucy Talbot

SUMMARY

The Norfolk Archaeological Unit (NAU) undertook fieldwork during 2001 on the line of the Corpusty to Saxthorpe Link Road. Some linear features and a group of pits on low-lying land a little to the north of the River Bure may have related to medieval, and possibly post-medieval, tanning or retting. Environmental assessment suggested that they had been cleaned out after use and backfilled with agricultural debris. Deposits relating to the formerly marshy nature of the area were also revealed, including part of a possible hard-standing or path leading towards the river. To the south-west of the site, two pits seen during a watching brief may also have related to tanning.

Introduction

(Fig. 1)

The site (Norfolk Sites and Monuments Record 36118) was located on the western side of Post Office Lane just to the south-east of the villages of Corpusty and Saxthorpe in the Bure Valley (TG 1165 3002, Fig. 1). It was approximately 100m from the northern bank of the river on a slight slope at the edge of the floodplain. On the other side of the lane, the land sloped steeply up to the north-east.

The excavation was necessitated by the imminent construction of the B1149 relief road, bypassing the village centres and the existing river crossing. It followed archaeological assessment of the entire line of the proposed road (Flitcroft and Penn 1994a and b) and the discovery by evaluation trenching of a number of pits, thought likely to be industrial in nature, at the present site (Trimble 2001). Knowledge of rural industry during the medieval period is limited (Wade 1997) and information recorded about industrial processes would provide valuable insights into practices during the period. The excavation was part of a programme of work that included a watching brief on the stripping of topsoil from the length of the new road and on the removal of soil and peat deposits from either side of the river.

The excavation took place between 20 August and 7 September 2001 and was carried out on behalf of Norfolk County Council. The site archive is currently held by Norfolk Museums and Archaeological Service, following the relevant policy on archiving standards.

Background

Corpusty and Saxthorpe lie on opposite banks of the River Bure in its upper reaches. The underlying geological deposits are glacial sands and gravels, overlaid by alluvial deposits in the valley bottom. Both village names incorporate a Scandinavian element suggesting a later Saxon origin. 'Saxthorpe' – Saxi's thorpe (*thorpe* being Old Norse for farmstead/village) and 'Corpusty' – Corp's (or possibly Korpr's) sty (*korpr* being raven, *sty* being path, or possibly pig sty). The villages are recorded in Domesday and it is likely that both are late pre-Conquest

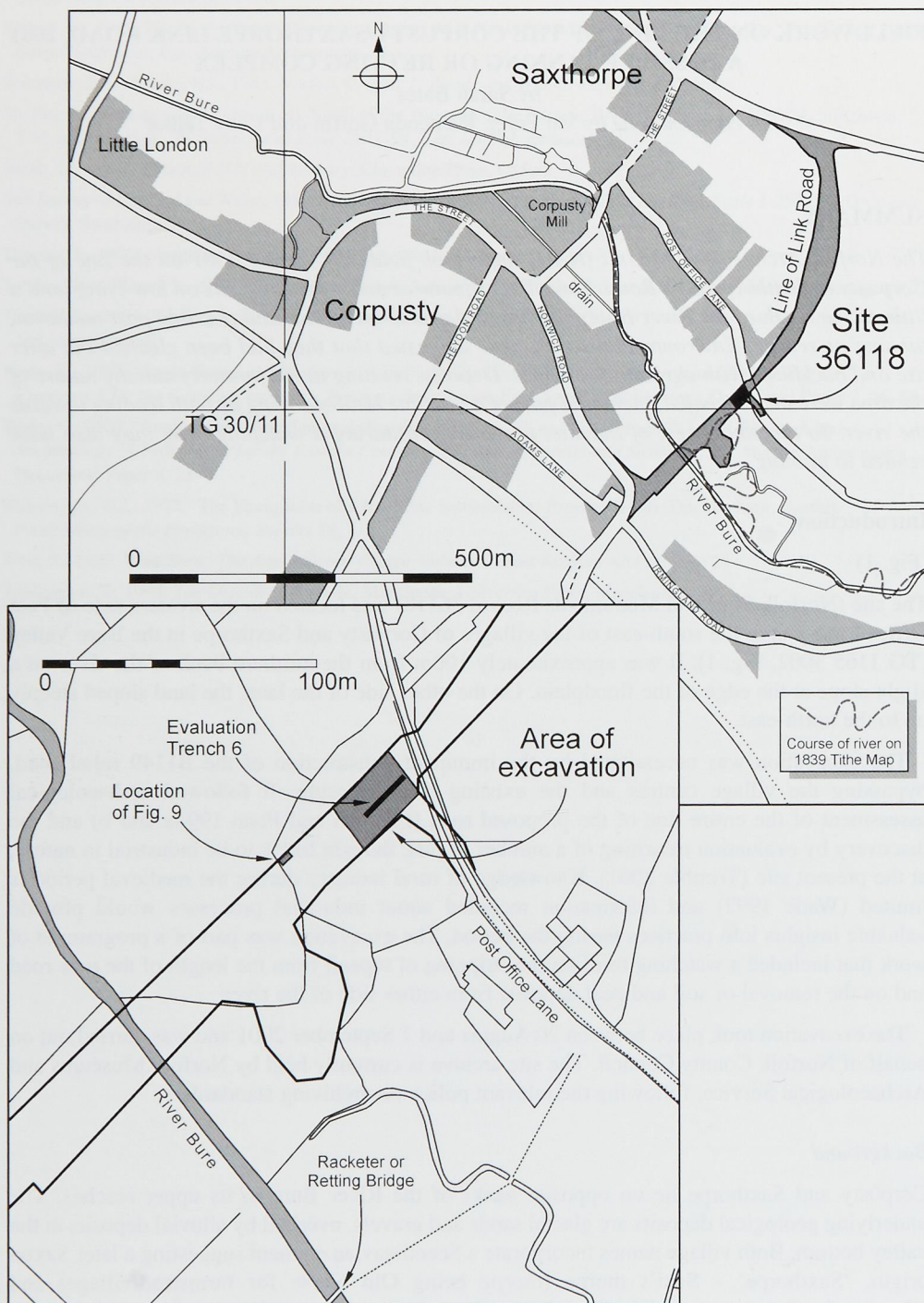


Fig. 1 Site location, showing line of B1149 Link Road; location of excavation area

creations within land-units that were once much larger. St Andrew's church at Saxthorpe was probably founded in the late 10th or 11th century and much altered in the 14th century. The present church of St Peter at Corpusty is probably of 14th-century date, although the presence of iron-bound conglomerates in its fabric suggest an earlier (Saxo-Norman) church may have existed at the site. The Domesday survey records two mills at Saxthorpe, probably close to the village centre and river crossing and possibly in the area still occupied by a 17th-century mill.

The present site lies in the ecclesiastical parish of Saxthorpe but both villages now form the modern parish of Corpusty. Tithe maps of Corpusty (1839) and Saxthorpe (1842) show the parishes divided by the river; a former meander just to the south of the present site survives today as a ditch, draining into the main river at its south end (Fig. 1). The tithe maps show that almost all of the area in the vicinity of the site was pasture, with some arable as the land rose to the north.

No archaeological sites or finds were known from the line of the new road prior to its evaluation. However, the recorded findspot of a Neolithic jade axe and the site of a possible chapel lie about 150m to the north of the present site (Flitcroft and Penn 1994a).

Archaeological evaluation of the road-line involved the excavation of six trenches (Trimble 2001). Five, spaced along the roadline to the north of the present site, were devoid of archaeological features or deposits, and two proposed trenches to the south of the river were not eventually dug due to flooding. Hence a sixth trench, in the area of the present site, was doubled in length to 20m. Here, a number of intercutting pits and linear features were partly excavated. The pits appeared to be deep and steep-sided, and their lower fills were waterlogged. It was thought that they might have been used for soaking or 'retting' flax. Interestingly, a footbridge across the river to the south-east of the site is known locally as the Racketeer, or Retting, Bridge — 'Racketeer' is thought to have derived from 'retting' or 'retter' (Wilson n.d., 24 and 78, Fig. 1).



Plate 1 General view of the excavation, looking south-west; possible tanning/retting pits under excavation at centre right. Photo 36118 52 by Sarah Bates.

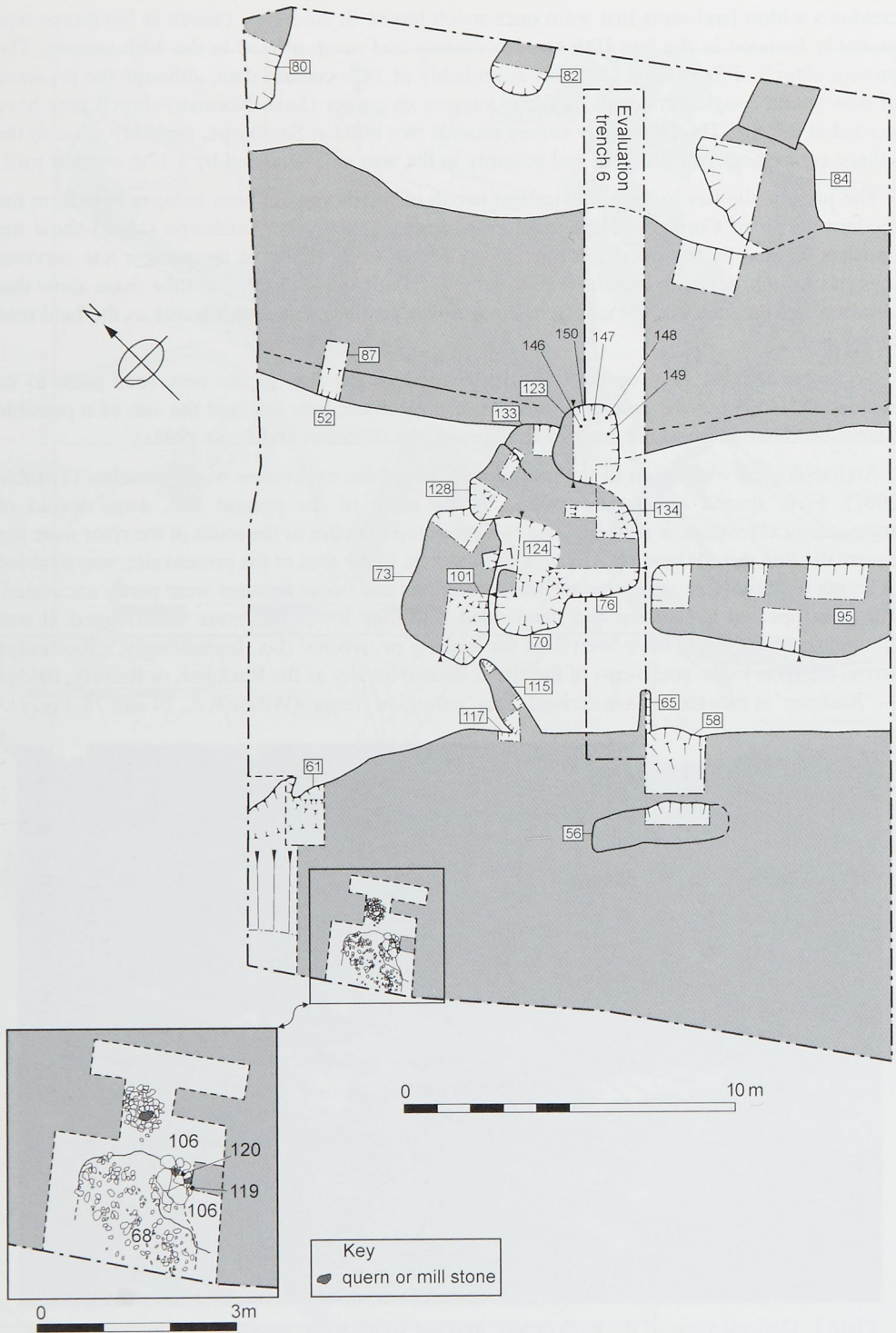


Fig. 2 Plan of excavated features

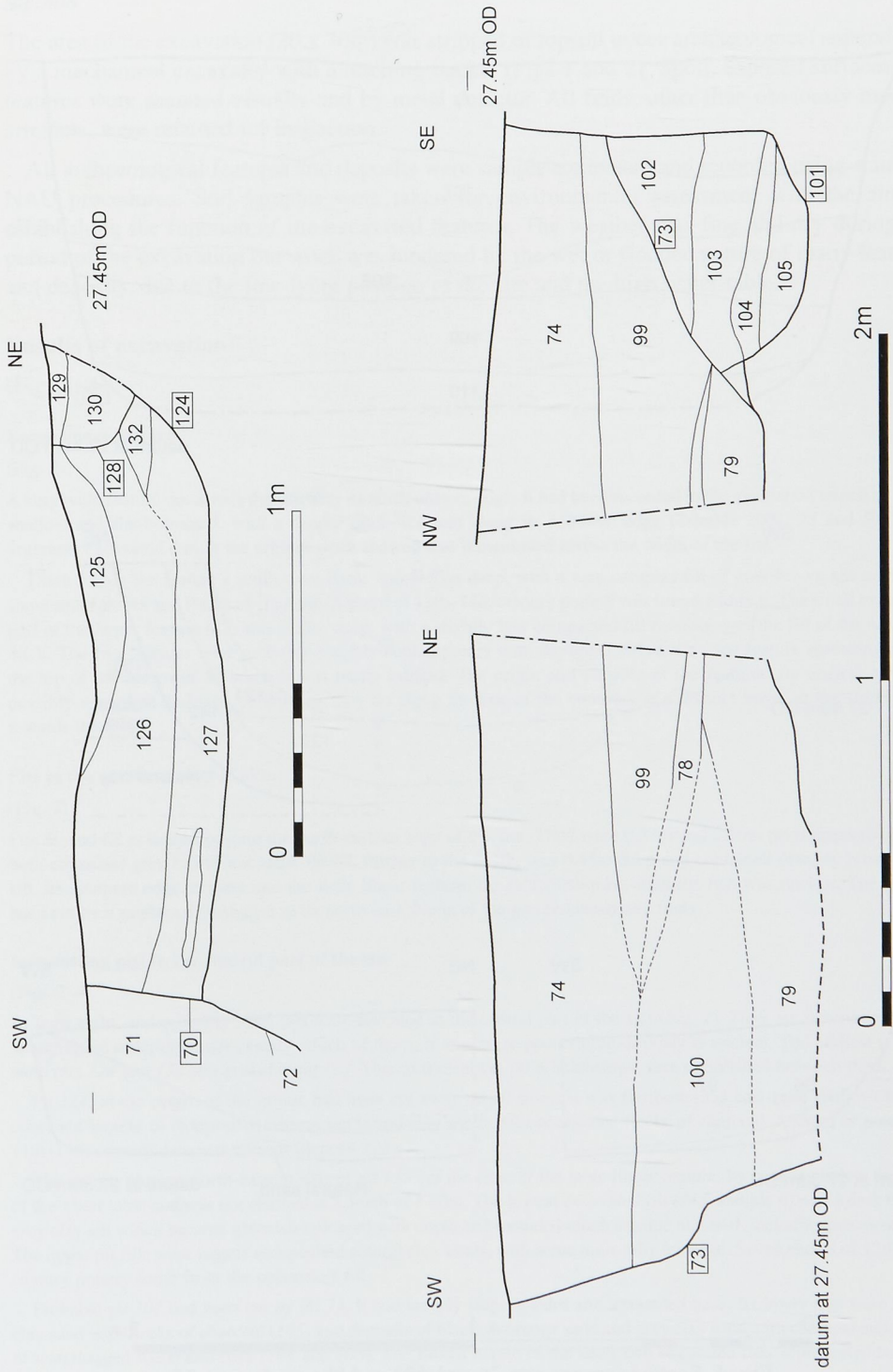


Fig. 3 Sections across pits 124, 101 and 73

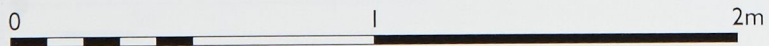
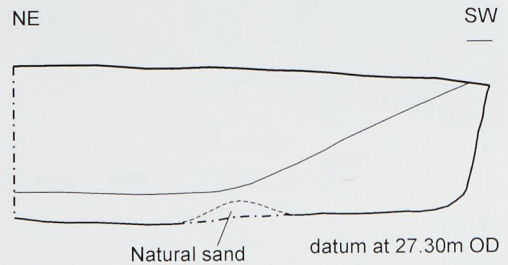
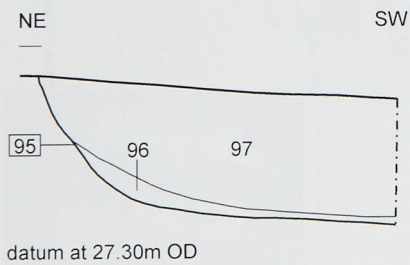
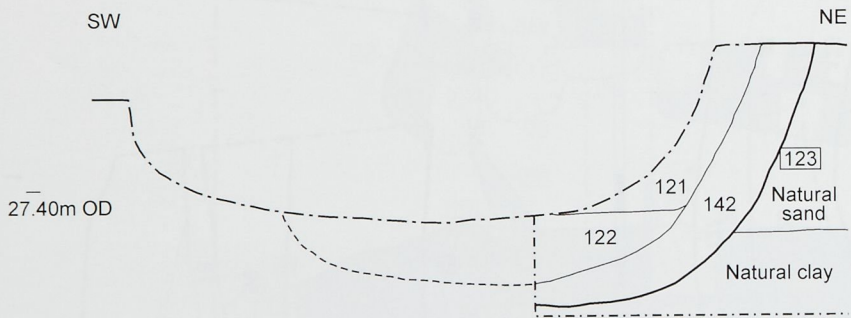
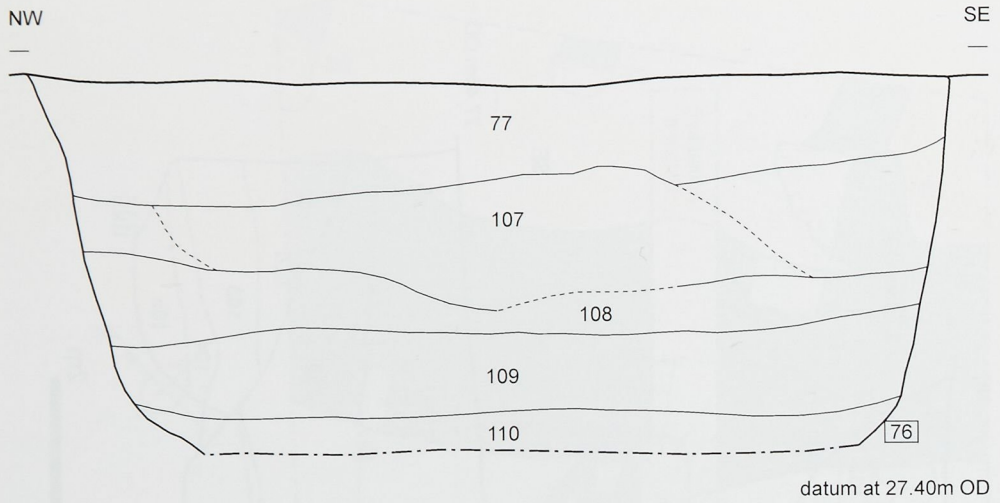


Fig. 4 Sections across pits 76 and 123 and ?linear feature 95

Method

The area of the excavation (20 x 30m) was stripped of topsoil under archaeological supervision by a mechanical excavator with a ditching bucket (Figs 1 and 2). Spoil, exposed surfaces and features were scanned visually and by metal detector. All finds, other than obviously modern artefacts, were retained for inspection.

All archaeological features and deposits were sample-excavated and recorded using standard NAU procedures. Soil samples were taken for environmental assessment with the aim of establishing the function of the excavated features. The weather was fine and dry during the period of the excavation but work was hindered by the wet or flooded nature of many features and deposits, due to the low-lying position of the site and the high water-table.

Results of excavation

(Figs 1–4)

Large linear feature

(Fig. 2)

A very wide feature ran across the site near its north-eastern edge. It had been recorded in the evaluation trench as wide, shallow and flat-bottomed, with a deeper ditch-like part along its southern edge (Trimble 2001, 23 and 5). Small segments excavated during the present work showed that it continued across the width of the site.

Ditch 52, on the feature's south-west flank, was 0.55m deep, with a very compact fill of grey brown silt sand with some small stones and flecks of charcoal. A sherd of 12th–14th century pottery was found within it. The small excavated part of the larger feature (87) was 0.25m deep, with a slightly less compacted fill running over the fill of the narrower ditch. The two features were probably roughly contemporary with the upper fill of the wide feature spreading across the top of the narrower 52 when it was partly infilled. The origin and purpose of the features are unclear but they possibly related to drainage, running as they do along the line of the contours at a distinct break in the slope down towards the river.

Pits in the northern part of site

(Fig. 2)

Pits 80 and 82 extended beyond the north-eastern edge of the site. They were 0.33m and 0.16m deep respectively and both contained grey brown silt sand. Pit 84, further to the south, was 0.45m deep and contained orangey brown sand silt. Its southern edge merged into the wide linear feature; the relationship between the two was unclear. The pit had been cut by a modern disturbance to its north-east. None of the pits produced any finds.

Intercutting pits in the central part of the site

(Figs 2–4)

At least eight, and probably nine, pits were revealed in the central part of the site (Fig. 2). They are described here in stratigraphic order although exactly which of them, if any, were open simultaneously is unclear. The earliest features were pits 124 and 133 and probable pit 101. Due to truncation, no relationships were established between them.

Pit 124, in the centre of the group, had been cut away on all sides. It was flat-bottomed and quite shallow. Its fills consisted largely of redeposited natural sands and clay sands with occasional flecks of charcoal. A sherd of pottery of 11th–14th century date was present (deposit 126).

The steeply sloping north-eastern side of pit 133 cut the edge of the large linear feature. Its base lay below the level of the water table and was not reached at a depth of 1.20m. The lowest excavated fill (145, sample 6) was a dark bluish-grey clay silt which became greenish-coloured with depth and included much organic material, including pieces of bark. The upper pit fills were largely redeposited natural clay sands, with some more silty material. Seven sherds of 12th–14th century pottery came from the uppermost fill.

Probable pit 101 had been cut by pit 73. It had steeply sloping sides and a rounded base. Its lower fills were a grey clay sand with flecks of charcoal (105) and deposits of blackish orange sand and grey clay sand with charcoal and pieces of waterlogged wood and bark (104 and 103). The mixed nature of the latter two suggested they represented backfill. Above them was redeposited sand clay silt 102. No finds came from the pit.

Pit 70 was sub-rectangular. It cut the south-western side of pit 124 and was 0.84m deep, with a concave bottom and almost vertical sides. At its base was a thin layer of dark grey silt clay with much fibrous organic material (72, sample 1). Filling the rest of the pit was a brownish yellow sand, 71. No finds came from the pit.

Pit 73 truncated pits 101 and 124. It was sub-rectangular with steeply sloping sides, which stepped inwards at a depth of 0.60m. Its base was reached at a depth of 1m towards its centre, but further to the south it was deeper and remained flooded. The lowest excavated fill was a mottled dark-coloured clay sand with charcoal and pieces of waterlogged wood (79, sample 3). Above it, a layer of redeposited subsoil 100 was overlaid by probable dumps of organic sand (78) and mottled sand clay with charcoal (99). Eight sherds of 11th–14th century pottery were found in the upper sandy fill, 74.

Pit 76 cut the eastern side of pit 70. It was sub-rectangular in shape and was excavated until ground water was encountered, at a depth of 1.05m. Its almost-vertical sides sloped inwards near the base of excavation, suggesting the bottom had almost been reached. The lowest excavated fills were a 'cess'-like greenish grey clay sand (110, sample 5) and a dark-coloured clay sand with organic fibres, small twigs and flecks of charcoal (109, sample 4). Above these were redeposited mixed orangey brown and brown grey clay sands (108, 107 and 77). The north-eastern corner of this pit had been cut by pit 134.

The extent of pit 134 was unclear; it cut pit 76 but had been cut away on its western side. Its eastern side sloped steeply at the top, and then more gently with depth. The pit contained mottled or stained orange and grey silt sands and sand silts, with one sherd of pottery of 11th–14th century date.

Pit 128 cut pits 133, 73 and 134. Where excavated, its base was reached at a depth of 0.55m. It contained various redeposited clay sands, some slightly silty with flecks of charcoal.

Pit 123 cut the eastern side of pit 133. It had been partly excavated in the evaluation trench. It was sub-rectangular with steeply sloping sides. In its bottom, at a depth of about 0.80m below the stripped surface, five stakes (146, 150, 147, 148 and 149) had been driven into the natural clay, roughly spaced around its north-eastern side. They were broken off at the pit base but extended into the clay to a maximum depth of 0.39m. Their diameters ranged from 0.46–0.86mm and all had been sharpened to points by chopping, probably with an axe. Perhaps the stakes once supported a lining to the pit (although no such 'lining' survived) or related to some process occurring within it. The primary pit fill was a mixed orange grey clay silt, 142, above which was a layer of lime, 122. This was 0.20m in thickness and extremely hard; it had to be removed by machine. Above it, in pale-coloured silt 121, were 22 sherds of pottery, all but one from a pipkin of 16th–18th century date of which part had been found in the feature during the evaluation. Animal bone, the only such material from the site, was also found in this deposit. In the top of the pit was a reddish brown silt clay 141 (not illustrated).

Linear feature 95

(Figs 2 and 4)

Immediately to the south of the group of pits was a linear feature, 95. It had steeply sloping sides and a flat bottom and may have been a pit or the western terminus of a ditch. The primary fill was a fine bluish grey sand silt (96), which formed a thin layer across the bottom of the feature and ran up to the surface at its southern side. The main fill was an orange brown sand clay (97) with grey silty lenses and occasional flints. Its laminated nature suggested that it may have been deposited by episodic flooding. Three sherds of 11th–14th century pottery were found in the feature.

Organic deposits at the south edge of the site

(Fig. 2)

A series of deposits in the southern part of the site related to the formerly marshy nature of the area. Only slightly to the south of the site itself the land was wet and marshy at the time of excavation.

Patches of very dark grey brown organic silt sand and orange brown sand gravel were exposed by machine-stripping of the area. These deposits alternated, with intermittent layers infilling the lower-lying area demarcated by a relatively sharp break in the slope down towards the river. The silts represented the development of marsh on the floodplain, and apparently sandy gravel had been dumped into the marshy area. Perhaps the latter had been dug out from the pits; conceivably it was dumped to help reclaim the flooded area.

A broad irregular linear feature, running parallel with the edge of the organic silts, was examined by sondage 61. It contained grey silt sand clay with gravel, burnt flint and flecks of charcoal, a few sherds of pottery of Late Saxon and early medieval date and, at the top, a patch of redeposited sand and gravel. Excavation was extended south-westwards by machine and showed the natural sand and gravel sloping down irregularly, but quite steeply, to a depth of about a metre in the corner of the site. The excavated sediments represented the edge of floodplain peats, and included waterlogged roots and twigs and some coarse colluvial material washed from higher upslope (details in archive). Similar deposits were also seen to the east in small sondage 58.

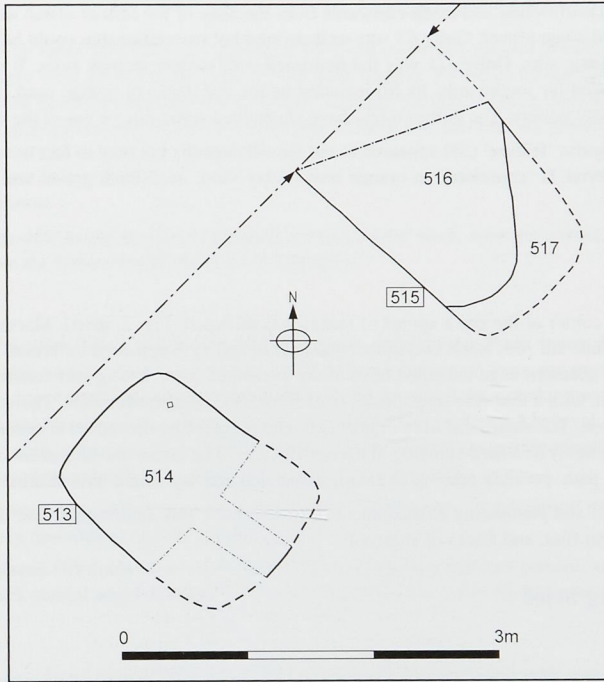


Fig. 5 Plan of pits observed in area of watching brief

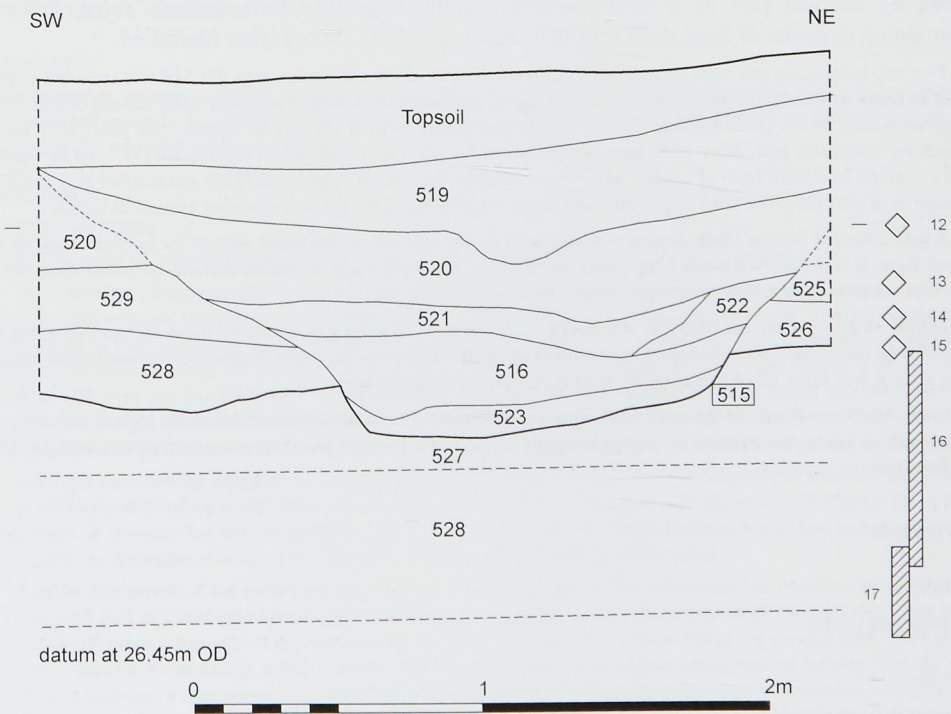


Fig. 6 Section across pit 515

Two short gullies ran northwards and north-eastwards from the edge of the former marsh deposits. Both contained grey brown silt sand and some gravel. Gully 65 was well-defined but no relationship could be established between it and the edge of the organic silts. Gully 115 was flat-bottomed with steeply sloping sides. It cut the edge of the silt deposits but was not traced far southwards. Its fill included lumps and flecks of orange sand clay and charcoal and a sherd of 11th–14th century pottery. The gullies might have channelled water into or out of the pits to the north.

A shallow sub-rectangular 'feature' (56) appeared to cut the silt deposits but may in fact have represented a distinct deposit of dumped material. It 'contained' an orange brown clay sand, occasional gravel and a sherd of 11th–14th-century pottery.

?Path

(Fig. 2)

Near the south-western corner of the site a spread of stones was recorded (Fig. 2, inset). Marsh silts were represented by dark grey brown organic silt 106, while two timber stakes (119 and 120) appeared to 'retain' the eastern edge of the stone spread 68, whose southern edge extended beyond the excavated area. The spread consisted mainly of flints of average size 0.05–0.10m, with a few very large pieces (*c.* 0.30m) and some smaller ones. There were also a few pieces of lavastone and sandstone. The stones had been deliberately laid (verified by the reused lavastone — see below — and the timber stakes), presumably as a hard-standing in the marshy area. The extent and alignment of the stones and stakes suggested that a narrow path, possibly relating to the pit-associated activity, might have headed towards the river.

Overlaying the stones, and post-dating abandonment of this surface, was an accumulation of sand silts with small stones, fragments of burnt flint, and flecks of charcoal.

Results of watching brief

(Figs 1, 5 and 6)

After the main excavation was completed, the road contractors stripped off the silt and peat deposits from the low-lying marshy area to its south-west. The area quickly flooded but pumping enabled part of it to be recorded archaeologically. Two, perhaps three, features containing deposits of lime similar to that seen in pit 123 (above) were identified.

Two sub-rectangular pits were located about 25m south-west of the excavation area. Pit 513 was recorded in plan after its upper part had (presumably) been removed during machining. It contained a creamy white deposit of lime (514) with occasional bluish green staining. Pit 515 cut through layers of sand silt into an organic silty peat (527), below which lay floodplain peat (528). In its base, a dark brown fine silt (523) and a black organic silt (517: not in section) were overlain by a thick layer of creamy white lime, 516, and deposits of organic silt (521) and mottled grey and dark orange sand silt (520). The latter apparently post-dated the infilling of the pit as it extended beyond its edges.

A pale-coloured lime or chalk deposit was also seen a short distance to the south-west in the northern bank of the River Bure. It was observed while lying partly under water, but the absence of similar deposits occurring naturally in the area suggested that it may have represented a third, similar, feature.

Topsoil stripping along the road line to the north of the main excavation was monitored by an archaeologist, but the use of large mechanical scrapers meant that no clean stripped surface was produced. Nothing of archaeological interest was seen. A few finds, all of modern date, were recovered by metal-detector.

In the field immediately to the south of the Bure, a thick layer of sand silt colluvium below the topsoil was removed to a depth of 1m by the contractors. A possible gully or pit and a possible post-hole were partly excavated but were undated (details in archive).

Artefacts

Pottery

by Richenda Goffin

Introduction

Eighty-six fragments of post-Roman pottery, weighing 1239g, were recovered. They consist mostly of medieval and post-medieval material. A small quantity of Late Saxon pottery is also present.

Method

Pottery was identified by fabric and form and quantified by sherd count and weight. Details of condition were noted. Approximate date ranges were given for the pottery from each context. Fabric codes currently used by the NAU are based on the typology of Norwich ceramics established by Jennings (Jennings 1981), with additions from the Suffolk Archaeological Unit typology (unpublished fabric code list). Pottery was recorded on pro-forma recording sheets and an Excel spreadsheet.

Late Saxon–early medieval

Two joining fragments of a sandy greyware, probably Thetford-type ware, were recovered, along with pottery of a slightly later date, from the former marsh deposits in sondage 61.

Medieval

Fifty-seven sherds of medieval pottery were found, often small and abraded. Forty-seven sherds are of an unglazed sandy ware of 11th–14th century date. Three body sherds of Early Medieval ware are present, together with larger quantities of Local Medieval Unglazed wares. Two vessel types were identified: a cooking vessel or jar of 12th-century form with simple everted rim from 61 and a bowl fragment made from a Local Medieval Unglazed variant from a redeposited sand layer (69) in the area of the former marsh. The latter was distinguished from the harder grey Norwich Local Medieval Unglazed ware by its soft, worn and partially oxidised nature.

Two sherds of Grimston Unglazed ware were found in pit 73, but these are not typical examples of the fabric and may be more accurately described as Local Unglazed ware.

Eleven pieces of glazed Grimston-type ware of late 12th–14th century date are present, and two joining fragments of a miscellaneous thick-walled unglazed sandy greyware came from the lower fill of linear feature 95.

Post-medieval

Twenty-one sherds, some large, from a substantial Glazed Red Earthenware pipkin with collared rim were found in an upper fill of pit 123. Sherds from the same vessel were recovered from the same pit during the evaluation of the site (Trimble 2001). A large fragment of a Local Medieval Transitional ware jar with a wide band of thumbing applied directly under the rim was found in the same pit fill.

Conclusions

The pottery is mainly medieval in date, and features small fragments of Local Unglazed wares that cannot be provenanced precisely. In addition fragments of Grimston-type ware from the west of Norfolk are present, both glazed and plain. No imported wares are present.

Lavastone

by Richenda Goffin

Eight fragments of lavastone formed part of a spread of stones that may have made up a pathway (68).

Three lavastone fragments (SF4), two of them joining, are of a dark grey stone with vesicles and mineral inclusions typical of the volcanic lavastone from the Mayen–Neidermendig area of the Eifel Hills, Germany. The largest piece has vesicles up to 1mm in diameter, and contains dark crystals of pyroxene up to 4mm long. Such lavastone is particularly suitable for grinding, since the vesicles are continually worn away and replaced by fresh ones (David Williams, *pers. comm.*) and there are few loose grits to contaminate the end product. Its vesicular nature meant that the stone was comparatively light to transport, and quantities were imported into England during the Roman period. It has also been found on Middle Saxon sites and it continued to be imported and used throughout the medieval period and beyond.

Although considerably abraded, the largest fragment was from a quern 63mm in height at its inner or centre edge, where the external surface is still intact and had been dressed to form a central hole (diameter *c.* 120mm). There is no indication of dressing for the insertion of a rynd. One other worked surface remains but is flat and worn; it was impossible to determine whether it had formed the upper or lower surface of the stone.

Another five pieces of the same type of lavastone, were found (SF5). The best-preserved fragment has a height of 65mm, with part of a dressed edge giving a diameter of *c.* 200mm for the central hole itself (Syson 1965, 120). Each fragment has dressed furrows on one surface, cut deeply, at intervals of *c.* 10mm. These are parallel apart from on the fragment with the dressed edge, which is heavily abraded but which shows some convergence of furrows. The diameter of the hole and size of furrows suggest that these fragments are from a millstone rather than a quernstone. The furrowed surfaces show evidence of wear. The present mill (built in 1699: Wilson *n.d.*, 21) is only about 300m away from the site and the pieces of millstone may well be from there, or from earlier mills sited on the river nearby.

| Sample No. | 1 | 2 | 3 | 4 | 5 | 6 | 8 | 9 | 11 |
|---|------|-------|----|-------|-------|-----|-----|-----|-----|
| Context No. | 72 | 78 | 79 | 109 | 110 | 145 | 122 | 142 | 517 |
| Cereals | | | | | | | | | |
| Cereal indet. (grain) | | | | | | | | | xc |
| <i>Hordeum</i> sp. (barley) (grains) | | | | | | | xc | | xc |
| (rachis nodes) | | | | xc | | | | | |
| (rachis internode frags.) | | | | xc | | | | | |
| Herbs | | | | | | | | | |
| <i>Agrostemma githago</i> L. (corn cockle) | xxtf | xcftf | x | xcftf | xtf | | | | xtf |
| <i>Anagallis arvensis</i> L. (scarlet pimpernel) | | | | | | | x | | |
| <i>Anthemis cotula</i> L. (stinking mayweed) | | | | x | xx | | | | |
| <i>Arenaria</i> sp. (sandwort) | | | | | x | | | | |
| Asteraceae indet. | x | | | | | | | | |
| <i>Atriplex</i> sp. (orache) | x | x | x | xxx | x | | | | |
| <i>Brassica</i> sp. (cabbage/turnip) | x | | | | | | x | | |
| <i>Centaurea</i> sp. | x | x | x | | | | | | |
| <i>C. cyanus</i> L. (cornflower) | xcf | | | | x | | | | |
| <i>C. nigra</i> L. (knapsweed) | | | | | xcftf | | | | |
| <i>Chenopodium album</i> L. (fat hen) | | x | x | x | x | | | xc | |
| <i>C. ficifolium</i> Sm (fig-leaved goosefoot) | | x | | | x | | x | | |
| Chenopodiaceae indet. | | | | | xxtf | | | | |
| <i>Cirsium</i> sp. (thistle) | | | | x | | | | | |
| <i>Fallopia convolvulus</i> (L.) A. Love (black bindweed) | | | | | x | | | | |
| <i>Fumaria officinalis</i> L. (fumitory) | | | | | x | | | | |
| <i>Galeopsis</i> sp. (hemp-nettle) | | | | | | | x | | |
| <i>Humulus lupulus</i> L. (bracts) (hop) | | | | | xcf | | | | |
| <i>Lamium</i> sp. (dead-nettle) | | | | | | | x | | |
| <i>Lapsana communis</i> L. (nipplewort) | | x | | | x | | | | |
| <i>Leontodon</i> sp. (hawkbit) | | | | | x | | | | |
| <i>Lepidium</i> sp. (pepperwort) | | | | | | | xcf | | |
| <i>Linum usitatissimum</i> L. (flax) | xcf | | | | | | | | |
| <i>Papaver argemone</i> L. (prickly-headed poppy) | | x | x | x | | | | | |
| <i>P. dubium</i> L. (long-headed poppy) | | | | | xcf | | | | |
| <i>Persicaria maculosa/lapathifolium</i> (redshank/pale persicaria) | | x | x | x | | | | | |
| <i>Plantago major</i> L. (greater plantain) | | | | xcf | x | | | | |
| Poaceae indet. (grass) | | | | | x | | x | xc | |
| <i>Polygonum aviculare</i> L. (knotgrass) | | x | x | xxx | x | x | | | xc |
| <i>Ranunculus</i> sp. | | | | | | | | | x |
| <i>R. acris/repens/bulbosus</i> (meadow/creeping/bulbous buttercup) | | | | | | | x | | x |
| <i>Raphanus raphanistrum</i> L. (wild radish) | x | | | x | xx xc | x | | | |
| <i>Rumex</i> sp. (dock) | | | | | x | x | x | | |
| <i>R. acetosella</i> L. (sheep's sorrel) | | x | x | xx | | | | x | |
| <i>Scleranthus annuus</i> L. (knawel) | x | | | x | xx | | | | |
| <i>Silene</i> sp. (campion) | x | x | x | x | | | | | |
| <i>Sinapis</i> sp. (nightshade) | xtf | xtf | x | x | | | | | |
| <i>Spergula arvensis</i> L. (corn spurrey) | | | | | x | | | | |

| <i>Sample No.</i> | 1 | 2 | 3 | 4 | 5 | 6 | 8 | 9 | 11 |
|--|------------|------------|------------|------------|----------------|-------------|-------------|----------------|----------------|
| <i>Context No.</i> | 72 | 78 | 79 | 109 | 110 | 145 | 122 | 142 | 517 |
| <i>Stellaria</i> sp. | x | | | | | x | | | |
| <i>S. graminea</i> L. (lesser stitchwort) | | | x | x | | | | | |
| <i>S. media</i> (L.) Vill. (chickweed) | | x | x | xx | x | | | | |
| <i>Thlaspi arvense</i> L. (field penny-cress) | | | | x | | | | | |
| <i>Urtica dioica</i> L. (stinging nettle) | | x | | | | | | | |
| <i>Viola</i> sp. (heartsease) | | x | | xcf | | | | | |
| Wetland plants | | | | | | | | | |
| <i>Apium graveolens</i> L. (wild celery) | | | xcf | | | | | | |
| <i>Carex</i> sp. (sedge) | | | | xcf | | | | | |
| <i>Juncus</i> sp. (rush) | x | xx | xcf | | | | xx | | |
| Trees/shrubs | | | | | | | | | |
| <i>Acer</i> sp. (<i>fruit</i>) (sycamore) | | | | | | | | | xpm |
| <i>Rubus</i> sp. | xfg | | | | | | xfg | xfg | xfg |
| <i>R.</i> sect. <i>Glandulosus</i> Wimmer & Grab. (bramble) | | | x | | | x | | | |
| <i>Sambucus nigra</i> L. (elderberry) | | | | | | xfg | | | |
| Other plant macrofossils | | | | | | | | | |
| Charcoal <2mm | xx | | x | xx | x | xx | xxx | xx | x |
| Charcoal >2mm | | | | | | | xx | | |
| Charred root/rhizome/stem | x | | | | | | | | |
| <i>Pteridium aquilinum</i> (L.) Kuhn (pinnule) (bracken) | x xxc | | xx | x | x | x | | | |
| (stem frags) | xc | | | | | | | | |
| Waterlogged root/rhizome/stem | xxx | xx | xx | x | xx | xx | xx | x | x |
| Waterlogged wood frags | | xx | xx | x | | | | | |
| Indet.bark | | | x | | | x | | | |
| Indet.buds | | | | | | xx | | xc | |
| Indet.conifer needle | | | | | | | | xc | |
| Indet.culm node | | | x | | | | | | |
| Indet.inflorescence frags. | xc | | | | | | | | |
| Indet.leaf frags | | | | | | x | | | |
| Indet.moss | | x | x | | | x | | | |
| Indet.seeds | x | | x | x | | | x | | x |
| Indet.thorns (<i>Rosa</i> type) | | x | x | | | | xc | | |
| Indet.twigs | x xc | xx | xxx | | x | | | | |
| Other material | | | | | | | | | |
| Black porous 'cokey' material | | | | | | | x | | |
| Calcareous concretions | | | | | | | xxx | xxx | |
| Tufaceous concretions | | | | | | | | | xxx |
| Waterlogged arthropods | x | | x | x | x | xx | x | x | xxx |
| Sample volume (litres) | 2ss | 4ss | 3ss | 4 | 8 | 4ss | 2 | 2 | 10ss |
| Volume of flot (litres) | 0.4 | 0.3 | 0.2 | 0.2 | <0.1 | 0.1 | 0.1 | <0.1 | <0.1 |
| % flot sorted | 25% | 25% | 50% | 50% | 100% | 100% | 100% | 100% | 100% |

x = 1-10 specimens; xx = 10-100 specimens; xxx = 100+ specimens.

c = charred; tf = testa fragment; fg = fragment; ss = sub-sample.

Table 1 Plant macrofossils and other remains

Flint

by Sarah Bates

Nine unmodified flakes, two scrapers (one on part of a probable blade), a possible piercer and a utilised flake were found. The material is of prehistoric date and was residual at the site.

A relatively large amount of burnt flint (176 fragments, weighing 1304g) was recovered; forty pieces came from the fill of linear feature 95. The rest, mainly from the organic silts at the southern side of the site, was mostly of quite similar small size and calcined. It probably represents material that had been deliberately heated for use as 'potboilers', to heat water for cooking or some other purpose (Bates and Wiltshire 2000). The nearby river and the formerly wet nature of the site would have provided an ideal environment for such activity. The material could date to the prehistoric period or later.

Other finds

by Lucy Talbot

(All finds from the watching brief are of post-medieval or modern date, and are listed in the site archive.)

Two pieces of post-medieval brick and pantile, weighing 14g, were found in an upper fill of pit 123 and two small pieces of unidentifiable vitrified material (12g), possibly associated with metalworking, were recovered from the former marsh deposits in sondage 61. A silver sterling penny of Edward I (1279–1307: SF1), a copper alloy Victorian halfpenny of 1886 (SF2) and a post-medieval copper/tin 'white metal' flat discoidal button (SF3) came from the topsoil and subsoil.

Environmental Evidence

Animal bone

by Julie Curl

Faunal remains, weighing 200g and almost certainly representing butchering waste, were recovered from pit 123. Chopped tibia and mandible fragments from cattle, other butchered remains probably of cattle, and a chopped sheep humerus were identified.

Plant macrofossils and other remains

by Val Fryer

Introduction

Samples from the intercutting pits thought possibly to have been associated with tanning or retting were assessed to ascertain whether evidence for either practice survived.

Methods

Samples were processed by manual water flotation/washover, collecting the flots in a 500 micron mesh sieve. Most flots contained waterlogged plant remains and were kept wet until sorted. The wet retents were scanned under a binocular microscope at magnifications up to x16, and plant macrofossils and other remains noted are listed in Table 1. Nomenclature follows Stace (1997). Charred and waterlogged macrofossils, the latter predominant, were recorded. Tabulated material is waterlogged unless otherwise stated.

Plant remains noted during scanning are categorised as follows: cereals, herbs, wetland plants, trees/shrubs and other plant macrofossils. The presence of other materials is noted. The relative density of material within each sample is expressed as follows: x = 1–10 specimens, xx = 10–100 specimens and xxx = 100+ specimens. Non-floating residues were collected in a 1mm mesh sieve and sorted when dry. Small fragments of pottery and animal bone, and samples of lime, were extracted and retained for analysis as appropriate.

Results of assessment

(Table 1)

Plant macrofossils. Cereal grains/chaff and seeds of common weed species occurred at varying densities in all samples. Charred and waterlogged macrofossils were recovered. Charred material was rare but generally well preserved, although somewhat fragmented. The waterlogged plant material was moderately well preserved, although certain specimens were very degraded.

Cereals. Charred cereals (barley, *Hordeum* sp., and an indeterminate grain) and chaff elements were recorded as single specimens from four samples (1, 4, 8 and 9).

Wild flora. Seeds/fruits of common weed species were present in all samples. Segetal taxa were predominant but wetland plant macrofossils were also noted in five samples (1, 2, 3, 4 and 8), including possible poorly preserved seeds/nutlets of wild celery (*Apium graveolens*) and sedge (*Carex* sp.).

Tree/shrub macrofossils were very rare. They included a poorly preserved fruit of sycamore/field maple (*Acer* sp.) in sample 11.

Other plant macrofossils. Fragments of charcoal and waterlogged root, rhizome or stem were present throughout at varying densities. Charred and/or waterlogged bracken (*Pteridium aquilinum*) pinnules and stem were common in samples 1 and 3, and present elsewhere. Other plant macrofossils included waterlogged wood and bark fragments, buds, moss, thorns and twigs.

Other material. Waterlogged arthropod remains were present in most samples. Brittle white calcareous concretions and friable tufaceous concretions were common in samples 8 and 9 and sample 11 respectively.

Discussion

A range of plant remains is present. Dryland segetal weed seeds are predominant in samples 2, 3 and 4, from the lower fills of pits 73 and 76. Given the close proximity of the river these seem unlikely to represent the local flora and may be derived from rubbish gleaned from nearby agricultural land. Bracken pinnules, twigs, buds and thorns may represent refuse from litter/bedding and from hedge clearance. The material from samples 1 and 5 (lower fills of pits 70 and 76) may also represent agricultural waste, although a far lower density of macrofossils is present in samples 2, 3 and 4.

The remaining plant assemblages probably consist largely of wind-blown detritus and contain insufficient material to be conclusively interpreted. However, samples 8 and 9 and sample 11, from pits 123 and 515 respectively, contain high densities of calcareous or tufaceous concretions. Both are precipitates from lime-rich water and are almost certainly related to the deposits of lime in the pits.

The plant macrofossil assemblages appear to be derived from secondary deposits within the pits and give little or no indication of their original function. No evidence survives for either retting or tanning. Probable agricultural/pastoral refuse was dumped in pits 70, 73 and 76 while the samples from pits 123 and 515 reflect the lime deposits within them. Given the virtual absence of macrofossil evidence for invasive weed/scrub growth, it appears that backfilling occurred very soon after the pits ceased to be functional.

Conclusions

Excavation revealed the extent and nature of the pits that were only partially seen in the evaluation trench. They were deep, probably flat-bottomed, features that were fairly regular in shape and size. They seem likely to have performed an industrial function.

The steep-sided nature of the pits, with no sign of slumping at their edges, the excavated deposits and the environmental evidence all suggest that the pits had been infilled soon after disuse. Any material being processed in the pits would, by its nature, have been removed once treatment was completed; the empty pits then seem to have been deliberately backfilled. Environmental evidence suggests that waste from agricultural activities was dumped in the pits. The location of the pits away from the village centre and close to the river is in keeping with the character of industrial processes such as tanning and retting, both of which require water and produce noxious pollutants.

Retting of flax, or hemp, for linen production involved soaking plant stems in water to soften them so that the inner fibres could be extracted and processed for spinning and weaving. The stems would be soaked in pools for about two weeks, being turned in water which was sometimes directed between interlinked retting pools by series of channels and sluices. At Grindleton in Lancashire such features run roughly parallel to the River Ribble and may represent part of a former course of the river. There flat-topped banks, which probably acted as flood barriers, were also used for laying out the retted flax to dry (Higham 1989). At Repps with Bastwick in east Norfolk, a number of pits were excavated on the line of the Bacton to Great

Yarmouth Gas Pipeline. Some of these were excavated to below the level of the water table and contained waterlain grey and blue/grey clayey silts and organic material. They are thought likely to relate to retting or to basting, the preparation of bark for cord or cloth production (Green in prep.). The large intercutting pits excavated at Corpusty/Saxthorpe are comparable with those from Repps with Bastwick, although not with those seen in Lancashire. There is no environmental or other evidence to prove that they were used for this purpose. However, the fact that there is historical reference to retting taking place in the vicinity of the present site is significant, and both at Repps with Bastwick and at sites in Lancashire (Higham 1989, 38–40) place-name evidence has assisted in the identification of retting sites. The linear features, as well as the pits, at the present site could potentially relate to such activity but the excavated segments do not allow a fuller interpretation.

Tanning is the treatment of prepared hides, usually of cattle, to produce leather. There are several stages in the process, which can take more than a year to complete (Blair and Ramsey 1991). The hides may be treated with lime or wood ash to remove the hair, scraped clean, washed and soaked in infusions of dung, stale beer or urine, immersed and stirred around in weak tanning liquor, and then left in pits with a tanning material — usually oak bark — for a year. Shallow 'handling' pits for the initial processes and deeper 'layaway' pits for the final tanning process might both be expected at tanning sites. A faster method of processing the skins of smaller animals such as sheep and pigs is tawing. This involves the treatment of hides with alum and other substances such as egg yolk, oil, butter or flour to produce a finer leather for the manufacture of gloves and other garments (Heard 2000).

In rural areas tanneries were quite widespread during the medieval period (Blair and Ramsey 1991). William the Tanner was listed as living in Saxthorpe in 1275, and in the 16th to 17th centuries tanners, combers, glovers, shoemakers and curriers, all representatives of trades associated with leatherworking, are recorded as householders living in Corpusty and Saxthorpe (Wilson n.d., 21). The intercutting nature of the excavated pits means that, whatever their purpose, they were probably used sequentially, possibly by people returning to the same spot on an intermittent basis. If for tanning or tawing, perhaps the pits were used on a small scale by farm-workers, as suggested by Wilson.

The deposits of lime seen in one of the excavated pits, and in those recorded during the watching brief, may also relate to tanning. Lime from the treatment of animal skins has been found in tanning pits at other sites (Blair and Ramsey 1991, Shaw 1984) and it is noted that pairs of pits (rather like those recorded during the watching brief at the present site) have been seen at other tanning sites, although the distinctive black organic and white lime deposits have more normally been recorded in separate pits (Quita Mould, *pers. comm.*). Although lime has many uses (in building, agricultural, industrial and domestic contexts) its discovery in such wet and waterlogged conditions seems likely to relate to a process which occurred *in situ* there, and which also required water. Slaking (or soaking lime in water to produce mortar) is another process involving both raw materials, but this is much more likely to have occurred at the site where the final product was intended for use. The timber stakes in the excavated pit might have helped support a lining to contain whichever process was occurring in the pit. Wooden tubs or vats and timber-lined pits are known from other tanning and tawing sites (Heard 2000, Shaw 1984). It is noted that both the stratigraphic and pottery evidence from the excavated pit containing the lime suggested that it was of later date than the other intercutting pits, and stratigraphic evidence from one of the pits in the watching brief area also suggests a relatively late date. Thus the 'lime-pit' may be unrelated to the other intercutting pits.

At the south side of the site the excavated deposits indicate the development of marshland and silt deposition on the floodplain. The deliberate placing of the (?revetted) stony area suggests that access to river water was needed, and the small gullies may also be associated with a supply of water for the processes taking place in the pits. Pottery from the silts and from the fill of one gully dates to the same period as that from the main group of pits. It is certainly of interest that the course of the River Bure appears to have altered in the vicinity of the present site. Its winding former line would have flowed very close to the site, particularly to the linear pit or ditch to the south-east of the pit group and to the Retting Bridge. Possibly the river had been canalised in this area to provide a separate channel for industrial use at the site.

The work at Corpusty/Saxthorpe has revealed interesting evidence for the 'industrial' history of the two villages. Unfortunately full interpretation of the excavated features and deposits is difficult, due to an absence of suitable environmental evidence and other diagnostic material and because it was impossible for practical reasons to expose more of the primary deposits within the pits.

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