

Report 2500



nau archaeology

**Archaeological Watching Brief at the reinforcement of
the water main between Halesworth Road and
York Road, Southwold, Suffolk**

SWD 056



Prepared for
Essex and Suffolk Water
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Location:	Halesworth Road, Reydon to York Road, Southwold
District:	Waveney
Grid Ref.:	TM 5029 7707 – TM 5045 7634
HER No.:	SWD 056
OASIS Ref.:	84920
Client:	Essex and Suffolk Water
Dates of Fieldwork:	25 October 2010 – 7 January 2011

Summary

An archaeological watching brief was conducted for Essex and Suffolk Water during installation of a new reinforcement water main across wetland areas between Halesworth Road, Reydon, and York Road, Southwold, Suffolk in October 2010 to January 2011. The remains of two Late Saxon vessels were recovered along this stretch of Buss Creek in the 1990s and, as a result, a programme of archaeological monitoring along with palaeoenvironmental sampling was required as the route.

One piece of early medieval pottery and one late medieval sherd were recovered from the marshland on the north side of Buss Creek and a layer of oyster shells of possible late medieval to early post-medieval origin was discovered on the south side of the creek. All other finds were of late post-medieval to modern date.

Results from palaeoenvironmental sampling served to confirm the existence of a wetland environment beside the river over a long period of time but otherwise were inconclusive.

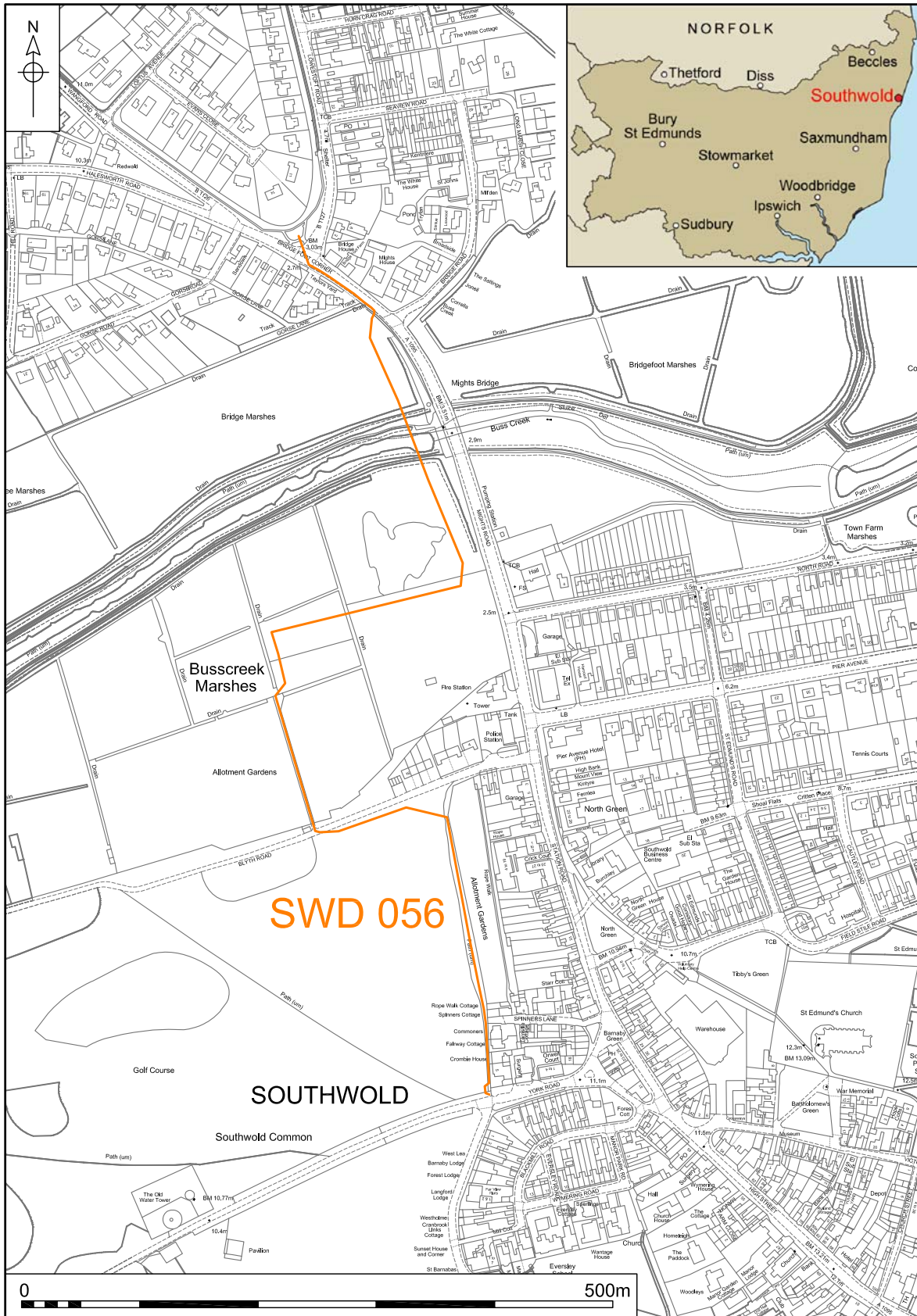
1.0 INTRODUCTION

A programme of archaeological monitoring was recommended by Suffolk County Council Archaeological Service Conservation Team during installation of a new reinforcement water main across wetland areas on the outskirts of Southwold, Suffolk, at the end of 2010, as the remains of two Late Saxon wooden boats were recovered from this area in the 1990s. Palaeoenvironmental sampling and recording was also recommended as the route of the water main passed through a flood plain.

The monitored section of the pipeline ran from Bridge Foot Corner, Reydon, through Bridge Marshes and Busscreek Marshes (drilling under Buss Creek), and on up through the allotment gardens and golf course to the north-west of Southwold (Fig. 1)

The monitoring work was undertaken to fulfil a brief issued by Suffolk County Council Archaeological Service (SCCAS) (Sarah Poppy 8 July 2010 – Ref. Southwoldreinforcementmain_2010), and was conducted in accordance with a Project Design and Method Statement prepared by NAU Archaeology (Ref. NAU/BAU2500/NP). The work was commissioned by and funded by Essex and Suffolk Water.

The programme of work was designed to assist in defining the character and extent of any archaeological and palaeoenvironmental remains within the



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Figure 1. Site location. Scale 1:5000

proposed redevelopment area, following the guidelines set out in *Planning Policy Statement 5: Planning for the Historic Environment* (Department for Communities and Local Government 2010). The results will enable decisions to be made by the Local Planning Authority about the treatment of any archaeological remains found.

The site archive is currently held by NAU Archaeology and on completion of the project will be deposited with the Suffolk County Council Archaeological Service (SCCAS), following the relevant policies on archiving standards.

2.0 GEOLOGY AND TOPOGRAPHY

The dominant solid geology of Suffolk is chalk. In the east of the county this is overlain by crags which are, in turn, overlain by sand and by wet, alluvial soils in coastal and river marshes (Wymer 1999, Martin 1999).

The development was situated just 1km from the coast and the ground surface across the affected area ranged from approximately 2m to approximately 11m OD. The lowest lying of these areas constituted marshland within a flood plain on either side of Buss Creek, and was semi-waterlogged.

3.0 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

Timbers from two wooden vessels were recovered from this stretch of Buss Creek in 1990 (SWD 006) and were dated by radiocarbon to the Saxon period. An unfinished rudder of early medieval type was also found, and a map of 1793 depicts this area as 'Old Key'. The potential for further early maritime remains to be found in the vicinity was thus considered to be high, as was the potential for palaeoenvironmental deposits to be encountered within the floodplain.

A map of 1884 and aerial photographs from 1945 show a 2km stretch of sea defence on the north side of this part of Buss Creek (REY 043). This defence is thought to be of post-medieval date but could conceivably be earlier. To the east is Mights Bridge (alongside which the water main was planned to run) which has been the site of a bridge since at least 1227 (SWD 012).

The southern end of the new water main runs very close to the area defined as the medieval town of Southwold (SWD 051). The town was first granted a market in 1222 and there may have been a church located on the site of St Edmunds (approximately 300m from the pipeline route) since the 11th century (the current church dates to around 1430) (SWD 007). Southwold has several extant medieval buildings, such as Sutherland House (DSF 13369) on the High Street, but the oldest buildings close to the route of the water main date from the late post-medieval period (DSF 13311-12, 13356-7, 13359).

A number of Second World War defences or training grounds have been identified in the immediate vicinity of the pipe route (SWD 021, 022, 024).

4.0 METHODOLOGY

The objective of this watching brief was to mitigate the impacts of the construction of the new water main. Where archaeological remains were identified, and these could not be preserved *in situ*, the potential impact of the scheme was to be minimised by appropriate levels of archaeological excavation and recording (preservation by record).

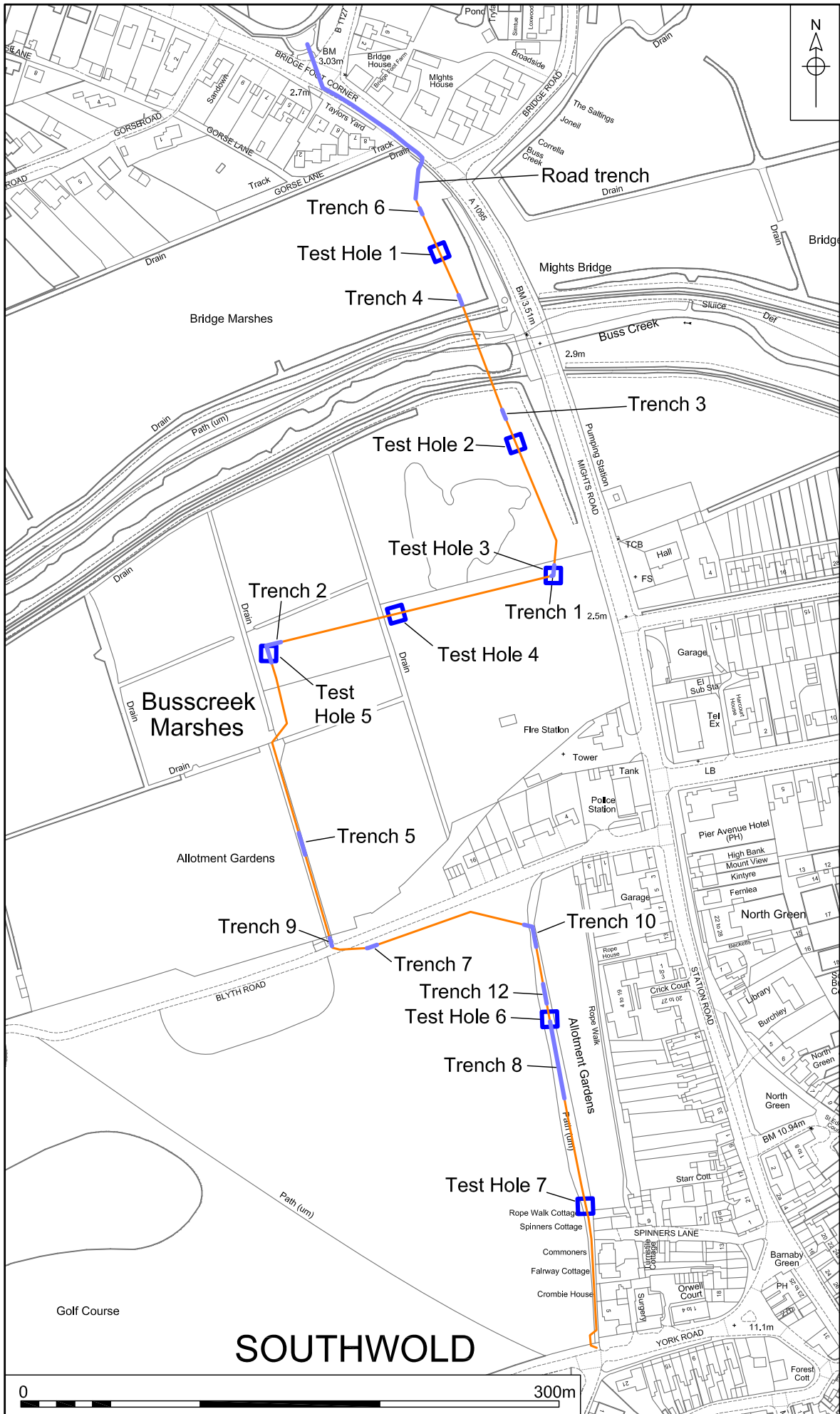


Figure 2. Location of Trenches and Test Holes. Scale 1:3000

All groundworks (Test Holes (1-7), the Road Trench and the Pipe Connection Trenches (1-10) were monitored and observations are presented in Section 5.0 Results, below.

Machine excavation was carried out with hydraulic 360° excavators fitted with ditching buckets and under archaeological supervision.

Environmental samples were taken from deposits across Bridge Marshes and Busscreek Marshes. A sequence of deposits from one trench was sent for environmental analysis. The initial intention had been to process a larger number of samples but because of the lack of dating evidence from the trenches there would be no benefit from the results of such analysis.

All archaeological features and deposits were recorded using NPS Archaeology pro forma. Trench locations, plans and sections were recorded at appropriate scales. Monochrome and digital photographs were taken of all relevant features and deposits where appropriate.

The work took place in November 2010 to January 2011 and although site access was good, high winds, heavy rain and snow all occurred during the course of the monitoring.

5.0 RESULTS

5.1 Test Holes

Initial work at the site concentrated on the excavation of a series of trial trenches (Test Holes 1-7) in order to establish the conditions for directional drilling across the marshland, allotments and golf course. The location of all test holes and trenches is shown in Figure 2.

Test Hole 1 was situated in the Bridge Marshes, alongside Mights Bridge, and measured 5m by 0.6m by approximately 2m deep. The topsoil in this area was a dark brown, friable clay loam 0.2m deep. It overlay a deposit of stiff, grey-brown clay 0.4m deep which, in turn, overlay a deposit of orange-brown woody, reedy peat 1.4m in depth. This overlay a layer of silt.

Test Hole 2 was excavated on the opposite side of Buss Creek, within Busscreek Marshes. It was situated approximately 50m from the centre of the creek and was again excavated to a depth of 2m. The topsoil here was a mid-brown friable, sandy loam 0.2m deep. It overlay a deposit of stiff, grey-brown clay, 1.8m deep and with occasional gravel and black gleys towards the base.

Test Hole 3 was situated 80-90m south-east of Test Hole 2 and measured 3m by 0.6m in size by 2m in depth. The topsoil at this point was the same dark brown friable deposit as in the previous two trenches, 0.5m deep and overlying stiff mid-grey-brown clay 0.4m deep. Beneath this was a layer of mid-orange-brown fibrous peat containing occasional roots and twigs. The peat was at least 1.1m deep and was saturated towards the bottom of the trench, but no standing water was exposed or formed within the trench.

Test Hole 4 was located approximately 100m to the west of Test Hole 3 and measured 2m by 0.3m by 2m deep. The topsoil in this trench was 0.4m deep and again overlay grey clay (1m deep) and orangey-brown, saturated peat (0.6m deep). The fills of a modern pit containing glass, crockery, and animal bone,

collapsed into the trench after excavation as water flowed under and around the cut. The pit appeared to be cut into the clay and overlain by topsoil.

Test Hole 5 was situated 80m to the west of Test Hole 4. The topsoil in this trench was, again, a dark brown, friable clay loam, but here it was only 0.1m deep and overlay a layer of brick and mortar rubble, also 0.1m deep. Beneath this was a layer of brown clay with occasional reed roots, 1.8m in depth, which graded to grey-black clay towards the base. At the base of the clay, lay a layer of rich brown peat.

Test Hole 6 was excavated between the golf course and the allotment gardens to the rear of Crick Court, Southwold. The trench measured 3m by 0.3m and was 2.1m deep. The topsoil here was a mid-brown, sandy loam with turf cover, 0.2m deep. The trench crossed a footpath adjacent to the allotments, which was composed of sand and stones. Beneath the topsoil was a 0.4m deep layer of light brown-grey silty sand with flint pebbles. Beneath that was a layer of gravel 0.85m deep which overlay bright orange sand with fine flint gravel at a depth of 1.45m from the ground surface. This latter layer was at least 0.65m deep, becoming more compacted and more gravelly with depth. Unlike the previous test holes, the deposits in this trench were dry.

Test Hole 7 was opened approximately 110m south of Test Hole 6, to the rear of Rope Walk Cottage, Spinners Lane. The trench was 3m by 0.3m in size and 2m deep. An electric cable was encountered 1m in from the eastern edge of the trench, so it was extended westwards by 1m. The topsoil was a dark sandy loam 0.2m deep. It overlay a mid-brown sandy loam with small pebbles, 0.3m deep which, in turn, overlay a layer of bright orange sand with occasional flint pebbles, at least 1.5m deep.

5.2 Road Trench

Excavation along the road on the Reydon side of Might's Bridge (Fig. 2) began on 10 November 2010 with a trial hole (Plate 1) to see at what depth the pipe could best be laid. A trench 0.35m wide was opened across the west side of the road outside the entrance to Bridge Marshes. A flat ditching bucket was used to excavate the trench, with hand-digging over services (an old water main and optic fibre cables). Beneath the tarmac surface was a layer of hardcore, then a layer of dirty brown sandy silt (all cut by services). Natural orange sand was encountered at a depth of approximately 1.1m below the road surface.

Work continued the next day despite adverse weather conditions (driving rain and high winds). A stretch of trench 10m-12m long was cut from the edge of the west pavement on Might's Road into the Bridge Marshes (Plate 2). The deposits encountered were a dark brown topsoil (0.1-0.2m deep) overlying a mid-brown silty subsoil approximately 1m deep. Both deposits had a rich, humic appearance. There were relatively few stones in either deposit and those that there were present were fairly small. The base of the trench filled with water (to a depth of 0.1m). No archaeological remains could be seen in the trench sides or in the upcast spoil. The natural, underlying, orange sand appeared at a depth of 0.95m close to the edge of the field, but elsewhere was at a depth of 1.1m.



Plate 1. The trial hole in the road



Plate 2. Looking north-east at the trench into the Bridge Marshes

On 12 November, one pipe length was excavated along the pavement beside Might's Road (Plate 3). A 1m deep deposit of brown silt adjacent to the edge of Gorse Lane and the Bridge Marshes, appeared to be a continuation of an extant field boundary ditch – indicating that it once crossed the area which is now the road. To the north of this line, the natural orange sand was encountered at a depth of just 0.4m, with only 0.2m of old topsoil and 0.2m of tarmac and hardcore overlying it.



Plate 3. Looking north-west at work along the pavement beside Might's Road

Work along the road progressed at a relatively slow pace as large numbers of modern services were encountered. Monitoring was carried out at frequent intervals.

On 15 November, a length of trench was excavated from just south of the entrance to Bridgefoot Farm, working south-eastwards towards the previously cut length of trench (Plate 4).

Along most of the trench, the deposits encountered were a generally consistent 0.2m of tarmac and hardcore on top of 0.2m of soft, mid-darkish brown clay silt topsoil, over natural orange sand (Plate 5). At the north-western end of the trench, however, the hardcore and topsoil layers overlay a hard, mid-brown clay 0.4m-0.6m thick.



Plate 4. Looking south-east at the trench alongside Might's Road



Plate 5. Deposits in the roadside trench

On 17 November, excavation continued. The deposits encountered were a layer of tarmac and hardcore 0.2m thick over firm, mid-brown clay 0.4-0.65m thick (Plate 6), over a layer of clean, undisturbed soil which varied from bright orange sand to an orange clay over yellow sand.



Plate 6. Deposits in the roadside trench

Outside the entrance to Taylors Yard numerous modern services were encountered (Plate 7) and the trench was hand-dug over and beneath these. Just south of the entrance to Taylors Yard, the mid-brown clay deposit was particularly deep (0.9m (1.1m from the current ground surface)) and a piece of animal bone was recovered from this. It is possible that this may have been a former field boundary crossing what is now the road line.

The following day, excavation continued along the footpath/pavement beside the road. The trench was 0.3m wide by 1.1m in depth and the deposits encountered were a layer of tarmac and hardcore 0.2m deep over subsoil 0.3m-0.7m deep over a clean, orange, slightly gravelly, undisturbed sand.

At Bridge Foot Corner, the trench turned towards the north and crossed the road. Several utility services were encountered but there was no other disturbance. The tarmac and hardcore layer was here 0.15m-0.3m thick and overlay a subsoil up to 0.5m thick. This overlay orange sand, with gravel beneath.

On the north side of the Bridge Foot Corner junction the trench was excavated through a grassed area where the topsoil was just 0.3m deep and lay directly over natural sand (Plate 8). No archaeological features or deposits were noted.



Plate 7. Modern services in the trench beside Might's Road



Plate 8. The north end of the roadside trench – at Bridge Foot Corner

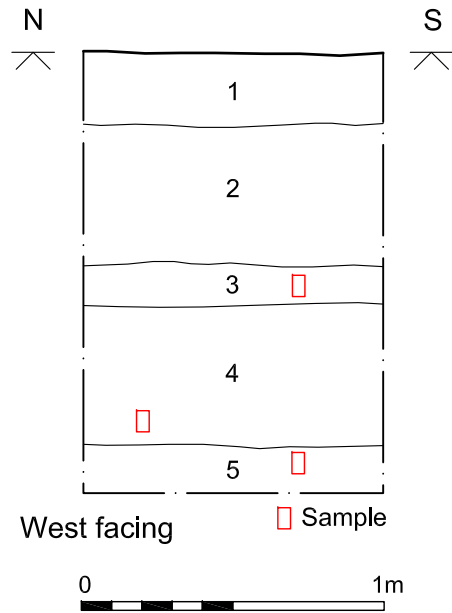


Figure 3. Section drawing showing deposits in Trench 1. Scale 1:25

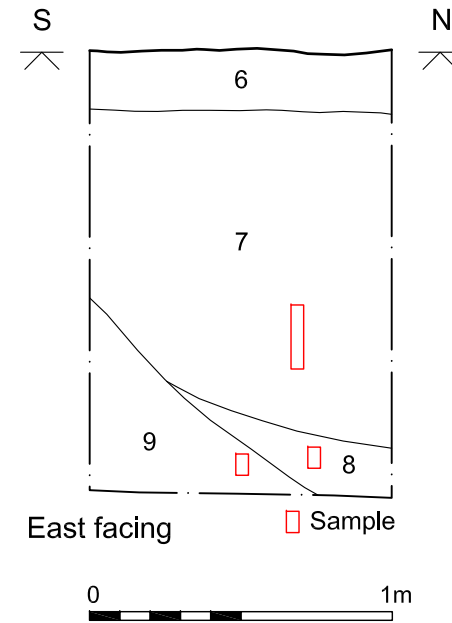


Figure 4. Section drawing showing deposits in Trench 2. Scale 1:25

5.3 Pipe Connection Trenches

Trench 1 was excavated roughly in the same area as Test Hole 3 (Fig. 2) in the Busscreek Marshes on the south side of Buss Creek. The deposits within the trench consisted of a layer of sticky, dark brown topsoil (1) 0.24m-0.4m deep over a layer of light grey silty clay (2) 0.46m-0.7m deep (Fig. 3, Plate 9). A late post-medieval to modern bottle dump had been cut into the grey clay layer (and possibly the topsoil) at one end of the trench. The fragments of crockery in this dump were white-glazed and clearly relatively modern and were noted but not retained.



Plate 9. Looking eastwards at Trench 1

The clay (2) overlay a thin layer of humic, dark brown, clayey, peaty soil (3) (0.14m thick) and then a layer of mid-reddish brown peat (approximately 0.46m deep) containing lots of twigs and wood (4). Beneath this was a layer of grey sandy silt (5) (at least 0.16m deep). The base of the trench filled with water and an environmental sample taken from below the water line and appeared to be of pure white sand. However it is feasible that it actually derived from grey sandy silt layer (5), with the black/grey silt washed out by the water.

Samples of the deposits in this trench were sent for environmental analysis (Samples <1>, <2>, <3> and <4> from deposits (2), (3), (4) and (5) respectively) and the results are described in Section 7.1 below.

Trench 2 was excavated to the west of Trench 1 in the Busscreek Marshes (Fig. 2). The trench was L-shaped and approximately 1.45m deep. As in Trench 1, the topsoil was a dark brown peaty clay. It overlay a layer of very sticky and heavy mottled orange and grey clay, 0.6-1.1m or more deep (Plate 10). Beneath this was a layer of mid to dark grey clay with patches of black. It was impossible to determine whether the black colouration was due to a humic deposit or charcoal. The clay overlay a layer of very rich, dark brown peat with large amounts of wood (identical to layer (4) in Trench 1). The level of this peat sloped sharply down towards the river (Fig. 4).



Plate 10 The excavation of Trench 2 (looking west)

Trench 3 was excavated between Trench 1 and Buss Creek, just 20-25m from the river (Figs 2 and 5, Plate 11).

Deposits within the trench consisted of a thick layer of dark, humic topsoil (approximately 0.38-0.4m deep) over a layer of mid-brown, stony clay and silt alluvium approximately 0.1m deep. This alluvium overlay a layer of orange sand and pebbles 0.05m deep and a layer of mid-brown silt with flint, 0.05-0.10m deep, beneath which was a very thin layer of orange sand over a bed of chaotically deposited oyster shells. Underneath this, was another thick layer of mid-brown silt and clay (approximately 0.50m deep) and, beneath that, lumps of peat with oyster shells and pebbles (Fig. 6, Plate 12). The base of the trench filled with water.

In the opposing section-face the stratigraphy appeared to be less complex, with topsoil directly overlying the thin layer of orange sand that capped the upper layer of oyster shells. Beneath this oyster shell deposit was a thick layer of brown

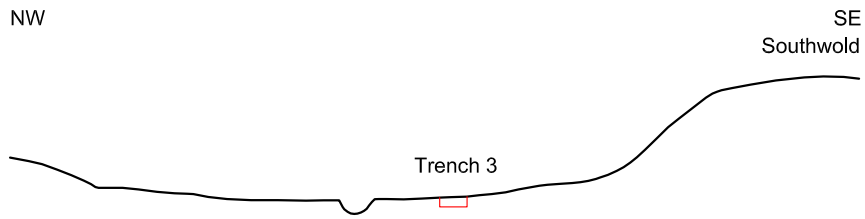


Figure 5. Sketched cross-section across Busscreek Marshes, showing location of Trench 3. Not to scale

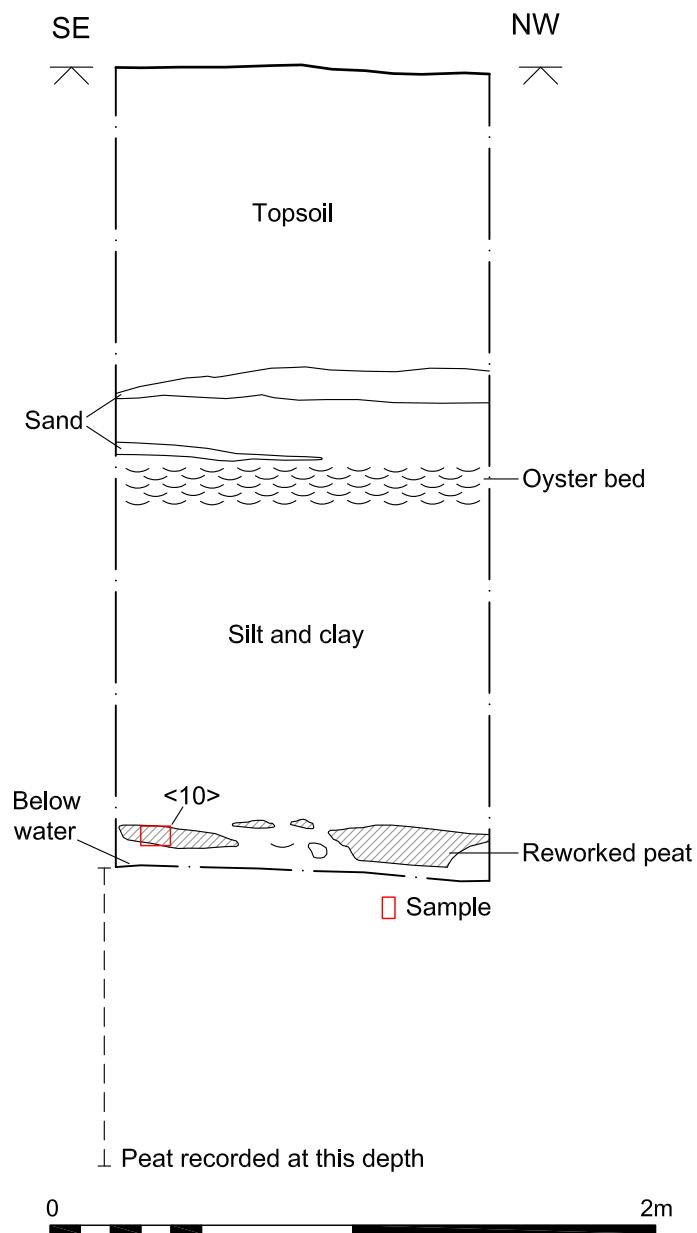


Figure 6. Section drawing showing deposits in Trench 3. Scale 1:25



Plate 11. Trench 3 (looking south)



Plate 12. Deposits in the western section face of Trench 3

alluvium, then a second layer of orange sand, and a layer of neatly deposited oyster shells mixed with coal (10) overlying a layer of grey silt (11) (Fig. 7). The inclusion of coal in the shell deposit (10) may indicate industrial waste and suggests a date from the 15th century onwards. The shells were all of a similar size (relatively small) and all lay flat as if deposited by water action (Plate 13). An environmental sample (<19>) was taken from grey silt (11) at the base of the trench to test for evidence of this being a marine deposit (Section 7.2 below).



Plate 13 The oyster shells in layer (10)

Trench 4 was situated on the north side of Buss Creek, in the Bridge Marshes (Fig. 2, Plate 14). It was located quite close to the river and contained a layer of very wet and sloppy silty clay topsoil (14) approximately 0.3m deep over a layer of very sticky and heavy light grey and tan clay (15) with occasional small stones and roots 0.50-0.55m deep. Beneath this was a layer of dark brown, leafy, woody peat (12) (approximately 0.3m deep) over a layer of mid-orange-brown peat with reeds (13) (at least 0.5m deep) (Fig. 8). Samples for environmental analysis were taken from both deposits (Plate 15). A large late medieval pottery fragment was recovered from the spoil, possibly originally deriving from the peat deposit.

Trench 5 was a pipe trench, approximately 12m by 0.8m, opened lengthways down a small narrow path between allotments to the south of the river, to expose a pipe that had been laid by directional drilling (Fig. 2). The trench was excavated by a mini-digger using a small (0.4m) toothless bucket (Plate 16).

Topsoil in this trench was dark brown and loamy – a good garden soil - as might be expected and was 0.34m deep. The subsoil (approximately 0.7m deep) was a dark grey-brown, moderately compacted, slightly sticky silt, containing nodules of flint and small lumps of red brick (Plate 17). Beneath this were alternating layers of light grey and dark grey sand forming a layer 0.35m deep that was heavily disturbed by root action. This was treated as a single deposit and sampled.



Plate 14. Excavation of Trench 4 (looking south-east)



Plate 15. Deposits in Trench 4

Beneath the grey sand, at the base of the Trench 5 (1.4m below the ground surface), was a layer of orange-brown sand.



Plate 16. Trench 5



Plate 17. Deposits in Trench 5

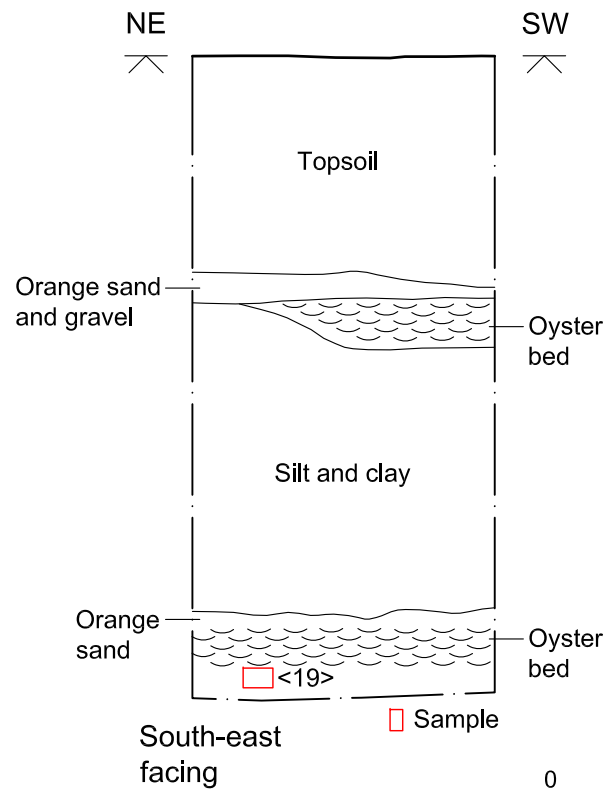


Figure 7. Section drawing showing deposits in Trench 3. Scale 1:25

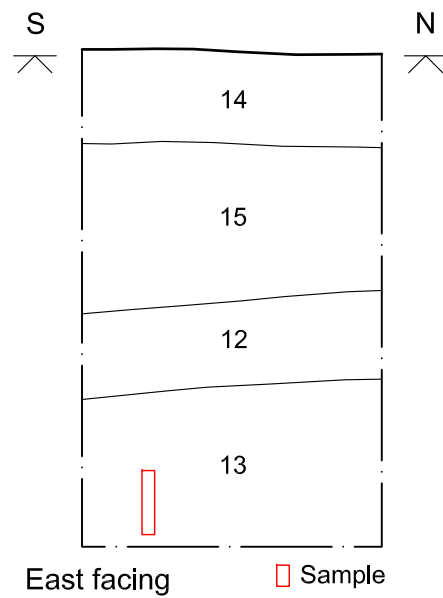


Figure 8. Section drawing showing deposits in Trench 4. Scale 1:25

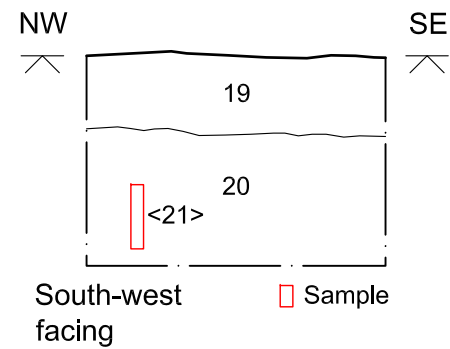


Figure 9. Section drawing showing deposits in Trench 6. Scale 1:25

Trench 6 was a small trench cut for the insertion of a valve. It was located close to Mights Bridge (Fig. 2) and was approximately 0.7m deep. Only two deposits were exposed; a layer of topsoil (19) 0.25m deep and a layer of subsoil (20) (Fig. 9). Pottery was recovered from the subsoil.

Trench 7 was situated in a lay by on the south side of Blyth Road (Fig. 2), approximately 30m south-east of the entrance to the allotments. The deposits encountered in this trench were a layer of asphalt (0.2m deep) over a layer of topsoil (0.2m deep) over a layer of orange sand and gravel at least 1.1m deep. No archaeological features, finds or deposits were recorded.

Trench 8 was located beside the golf course to the west of Southwold town (Fig. 2, Plate 18). The trench was 45m long by 0.5m wide and 1.4m deep and excavated by mini-digger. Deposits exposed within the trench were a dark brown, stony, silty-sand topsoil (0.3m deep), over a mid to dark orange-brown, stony, silty-sand subsoil (0.4m deep), over a natural, stony orange sand (at least 0.7m deep). No archaeological features, finds, or deposits were noted.

The archaeologist noted that the ground had probably been landscaped and embanked prior to construction of the golf course.



Plate 18. Trench 8

Trench 9 was 4m long by 1.3m deep; it was 1.2m wide at its south end and 0.9m at its north end. It was situated 5m to the east of a shed belonging to the Southwold Allotment Association, in the entrance-way to the allotments (Fig. 2). The trench cut through a layer of asphalt 0.3m deep, beneath which was a layer of brownish-orange sand and gravel at least 1m deep (the base of which was not exposed) (Plate 19). There were no archaeological features, deposits or finds.



Plate 19. Trench 9

Trench 10 was an L-shaped trench 6m by 6.3m and 1m-1.5m deep (Fig. 2). It was located approximately 85m to the east of Trench 7, to the rear of properties along Station Road and south of Blyth Road. The topsoil in this trench was 0.1-0.2m deep and overlay orange sand and gravel (Plate 20). Four pits or features ([21], [23], [25] and [27]) were identified in the trench; all had been cut into the orange sand and were sealed beneath the topsoil. Three of the pits were observed in the part of the trench aligned north-south and pit [27] was in the east-west aligned section.

Pit [21] could equally have been a ditch or the edge of a service trench; it appeared as an almost level deposit of dark brown sand (22) that was 0.12-0.26m deep (Fig. 10).

Pit [21] was cut by pit or ditch [23] with a 0.65m deep U-shaped profile which ran almost perpendicular to it (Fig.10). This feature contained fill (24) - a dark brown sand.

Adjacent to pit or ditch [23] was pit [25] which was only 0.26m deep and had uneven sides (Fig.10). Deposit (26), the fill of pit [25] was again dark brown sand

All three features contained pottery and ceramic building material.

The edges of pit [27] were not identified as they lay beyond the limits of the trench (Fig. 11). Its fill, (28), was a dark brown sand containing ceramic building material, slate, and mortar. A layer of orange sand 0.20m deep overlay (28) in one corner of the section and may have been an upper fill of the pit. It is possible however, that as the extent of pit [27] was not identified, layer (28) may actually have been a rubbly deposit laid down during landscaping and embankment of the area at the edge of the golf course.



Plate 20. Trench 10

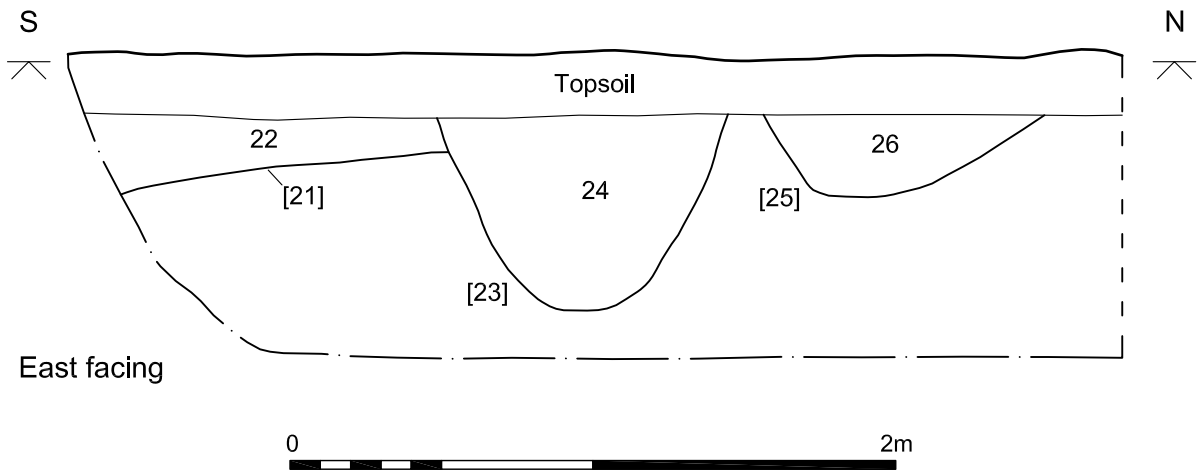


Figure 10. Section drawing showing deposits in Trench 10. Scale 1:25

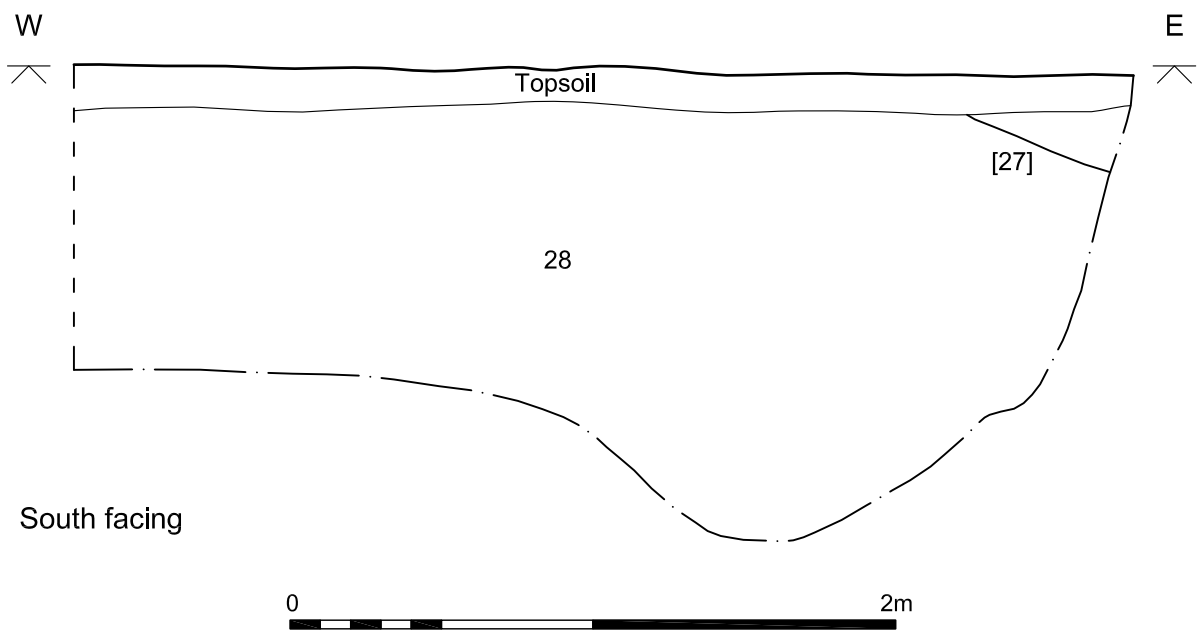


Figure 11. Section drawing showing deposits in Trench 10. Scale 1:25

6.0 THE FINDS

6.1 Medieval and Transitional Pottery

by Andrew Peachey

Watching brief excavations recovered a total of four sherds (468g) of pottery in a moderately abraded condition, including vessels of early medieval and late medieval transitional date (Appendix 3).

The subsoil (20) in Trench 6 contained two cross-joining sherds (278g) from an early medieval jar with a hand-formed ovoid body and a simple everted rim (diameter 110mm) that was finished on a wheel. The fabric of the vessel is mid to dark grey and tempered with common fine to medium sand. This form and fabric were produced at numerous local centres in Norfolk and Suffolk in the 11th-12th centuries, and are common across the region including at Stowmarket and Norwich (Anderson *forthcoming a*)

Trench 4 produced two cross-joining sherds (190g) from the base of a late medieval transitional ware vessel, possibly a lid. The 'base' has a small protruding foot or knob that probably functioned as a handle. The groove between the 'base' and body preserves traces of a dark green glaze. The fabric of the vessel is oxidised red-orange with a narrow mid grey core, and inclusions of common white and red quartz (<0.1-0.5mm), sparse red ferrous grains (<1mm) and common fine mica. This type of form and fabric were produced in northern Suffolk in the 14th and 15th centuries at kiln sites including Wattisfield, Rickinghall and South Elmham St. James (Anderson 1996, 7-10). As the pottery was disturbed during machining of the trench, it was not possible to say precisely which deposit it came from and it was issued with a separate, 'unstratified' context number: (29).

6.2 Post-Medieval Pottery

by Sue Anderson

Eighty-nine sherds of post-medieval pottery, weighing a total of 4,208g, were collected from four contexts. The majority of the potsherds were from pit fill (22), with the remainder coming from two other pit fills and an unstratified context.

Table 1 (below) shows the quantification by fabric. A full list by context can be found in Appendix 3.

Description	Fabric	Code	No	Wt(g)	Eve	MNV
German stoneware	GSW	7.01	1	41		1
Refined white earthenwares	REFW	8.03	21	1211	1.66	14
Creamwares	CRW	8.10	1	30		1
Yellow Ware	YELW	8.13	6	193		2
English Stoneware	ESW	8.20	35	895	0.93	6
Porcelain	PORC	8.30	14	50	0.25	2
Late slipped redware	LSRW	8.51	11	1788	0.57	1
<i>Total</i>			89	4208	3.41	27

Table 1. Post-medieval pottery quantification by fabric

With the possible exception of the German stoneware sherd, which may be late medieval or early post-medieval, all pottery in this assemblage was of late 18th-century or later date. It included a range of table wares in refined whiteware, porcelain and creamware, some decorated with transfer printing, hand-painted overglaze enamel, sponging and slip-banding. Utilitarian wares such as mixing bowls, preserve jars and bottles in yellow ware, slipped redware and English stoneware were also present, and toilet wares were represented by a transfer-printed chamber pot fragment.

6.3 Ceramic Building Material (CBM)

by Sue Anderson

Five fragments of CBM weighing 4,202g were collected from three pit fills. (Appendix 4) Two fragments of moulded bricks/tiles in white-firing fine sandy fabrics were found in (24) and (26). These were 110–113mm wide and varied in thickness between 20-38mm, having a slightly concave upper surface. Their purpose is uncertain.

A white-firing brick with double frogs stamped with the maker's name and a green-glazed stretcher face was found in (26). The two sides probably had the same inscription, reading CLIF.../WORTL... on one side and ...ONS / ...Y.LEEDS on the other. The brick was made by Joseph Clifford and Sons of Wortley, Leeds, a company which operated during the mid 19th century up to 1889.

A complete quarry floor tile in a coarse sandy white-firing fabric was found in fill (28) and measured 151 x 151 x 22mm. The surface was worn and the base was moulded, suggesting a 19th century or later date. It was found in association with a press-moulded plain roof tile fragment which measured 162mm wide and 12mm thick and was of the same date.

6.4 Glass

by Rebecca Sillwood

Six glass objects, weighing a total of 991g, were recovered from two contexts. The majority of the finds were recovered from (22), the fill of pit [21], and consisted of four complete bottles and one fragment of the base of another. The complete examples include a wine bottle, and two smaller, probable medicine bottles. The fourth bottle has 'Harlene for the Hair' embossed on the glass and on its plastic, metal, and cork stopper. This brand name was patented in 1903 by Edward's Harlene Ltd, who claimed to have been selling it since 1883. The product was marketed as a hair 'producer and restorer, to cure baldness and to help ladies enhance their locks'.

The four complete bottles are clearly late 19th to mid-20th century in date, but the fragment of bottle base may be slightly older, possibly 18th century.

The sixth fragment of glass is a flat piece, which could be from a window, or possibly from a vessel of some kind. The piece came from (28), the fill of pit [27], and is of pressed amber glass, decorated with scallop shells and seaweed. This piece is from the mid 20th-century, possibly 1930s to 1960s in date.

6.5 Clay Pipe

by Rebecca Sillwood

Two fragments of clay tobacco pipe were recovered from (22), the fill of pit [21]. These comprised of one undiagnostic stem piece and one part of the stem, heel and bowl. On either side of the heel are embossed initials which identify the maker: these are a 'J' or 'T' and an 'A'. Clay pipes from many different places are likely to have arrived in Southwold on the various ships that docked here, and it has not been possible to identify this particular maker. It appears from the style of the pipe that it is neither an exceptionally early or late example and probably dates from the 18th century.

6.6 Iron

by Rebecca Sillwood

A single iron object came from (24), the fill of pit [23]. The object is a heel iron from a shoe, and measures 70mm in width by 65mm in length. The piece is encrusted with corrosion, and little detail is visible, although it appears that at least one nail is *in situ*. This object is likely to be post-medieval in date.

7.0 THE ENVIRONMENTAL EVIDENCE

7.1 Plant Macrofossils and Other Remains

by Val Fryer

7.1.1 Introduction and method statement

A watching brief at Southwold recorded a section through a sequence of undated organic deposits, which were exposed in a machine trenches. Samples for the evaluation of the content and preservation of the plant macrofossil assemblages were taken. A wide range of deposits were sampled, particularly in the valley bottom where alluvial deposits and marsh peat had developed. Unfortunately there was a paucity of dating evidence associated with these deposits and it was considered that specialist environmental analysis of these deposits would have not provided meaningful results. Four samples were submitted for assessment.

The samples were processed by manual water flotation and the flots were collected in a 300 micron mesh sieve. As all flots were seen to contain waterlogged/de-watered macrofossils, they were stored in water prior to sorting, but were subsequently air-dried to facilitate storage. The wet retents were scanned under a binocular microscope at magnifications up to x16 and the plant macrofossils and other remains noted are listed in Appendix 5; nomenclature follows Stace (1997). Both charred and waterlogged/de-watered plant remains were recorded, with the latter being denoted in the table by a lower case 'w' suffix.

The non-floating residues were collected in a 1mm mesh sieve and slowly air-dried. The residues will be returned to NPS Archaeology.

7.1.2 Results

Although fragments of waterlogged/de-watered root/stem, wood fragments and twigs were recorded, other plant macrofossils were scarce, with most seeds only occurring as single specimens within an assemblage. Seeds of ruderal

weeds/grassland herbs, including musk thistle (*Carduus* sp.), persicaria (*Persicaria maculosa/lapathifolia*) and cinquefoil (*Potentilla* sp.) were noted within the assemblages from Samples <1>, <2> and <3> and Sample <2> also contained seeds of wetland/aquatic plants namely sedge (*Carex* sp.), marsh pennywort (*Hydrocotyle vulgaris*), gipsy wort (*Lycopus europaeus*), pondweed (*Potamogeton* sp.) and lesser spearwort (*Ranunculus flammula*). Fragmentary bramble (*Rubus* sp.) type 'pips' were noted within Samples <1> and <2>. Charcoal fragments were present throughout.

Although waterlogged arthropod remains were present within all four assemblages, other materials, including black porous and tarry residues and coal fragments, only occurred in Samples <1> and <2>.

7.1.3 Plant Macrofossil Conclusions

The assemblages from Samples <1>, <2> and <3> all contain concretions of either mineralised soil (Samples <1> and <2>) or very densely compacted organic material (Sample <3>), which may possibly indicate that these are natural deposits formed in very wet or permanently waterlogged conditions. The low density of weed seeds present within the assemblages may suggest that the deposits formed relatively quickly, possibly as a result of flooding. The assemblage from Sample <4>, from the base of the sequence, contains a higher density of charcoal/charred wood and although it is still largely composed of organic remains, it appears less compacted than the other deposits.

At the time of excavation, it was hoped that these samples would include materials suitable for scientific dating. Although charcoal fragments are present throughout, Samples <1> and <2> may contain intrusive remains from the topsoil layer and there is insufficient material within Sample <3>. It would appear that only the material within Sample <4> is potentially suitable, although even this is likely to have absorbed soluble carbon from the surrounding soil which would be likely to bias any analysis.

7.2 Diatom Analysis

by Dr F.M.L. Green

7.2.1 Sampling

One of the considerations of this project was to identify the tidal influence on the river and to determine if formerly brackish conditions had existed just inland of the coastal town of Southwold. To this end a single sample of silty clay <19> (11) was analysed from a sequence of 'alluvial' deposits sampled in Trench 3 close to the present river (Figs 2 and 3). This sample was processed to see if any microfossils indicating fresh or brackish/marine conditions were present.

7.2.2 Method

Samples were initially mounted without cleaning so that any pollen or other organic microfossils may be observed. The sample was then cleaned to observe diatom and other siliceous microfossils more clearly.

Diatom samples were prepared by boiling 1cm³ of sediment in 10% Hydrogen peroxide until all the organic material disappeared and mounting the sample in Naphrax. The sample was then analysed under x1000 magnification.

7.2.3 Results

Sample <19> from deposit (11) was from a mid brown silty clay with traces of organic and a trace of sand.

The uncleaned sample revealed a moderate amount of unidentifiable amorphous organic material. This organic material formed coatings around some of the sand grains. Unfortunately no pollen, or foraminifera were recorded which could have given some indication as to the environmental conditions under which the sediments accumulated.

The cleaned sample did not contain any diatoms.

There were frequent sponge spicules in the sample, which although more frequent in marine environments also occur in freshwater so are unfortunately undiagnostic in terms of salinity. They do however; indicate the source of the sediment was within water.

Of interest in this sample was the presence of green glauconitic sand grains which are produced in a marine environment.

7.2.4 Diatom Analysis Conclusions

With the exception of sponge spicules no microfossils were observed in this sample. The sponge spicules do indicate the sediment accumulated in wet conditions – either freshwater or marine. The presence of glauconitic sand suggests this was a brackish or marine influenced environment but it is possible the glauconitic sands may be reworked from older sediments in the valley.

This analysis indicates the sediments were laid down in watery conditions which are consistent with it being a river alluvium but there is a possibility there was also some tidal influence but the latter is less certain.

8.0 CONCLUSIONS

Very little dating evidence was recovered during the project and the majority that was came from the upland area to the west of Southwold town, rather than from the marshland area around Buss Creek. Activity around the area of the golf course dated from the late post-medieval to modern era, as did much of the activity identified in the Busscreek Marshes. Two late post-medieval to modern 'bottle dumps' were encountered here in Test Hole 4 and Trench 1. The soft land of the marsh, perhaps left unused in this period, may have been a convenient place to dump domestic waste such as crockery, glass and metal. Two layers of oyster shells identified in Trench 3 may be indicative of earlier activity but the presence of coal in the lower of the two oyster shell deposits suggests that this would not have predated the late medieval period, and there is a possibility that it is actually considerably later.

A fragment of early medieval pottery and another of late medieval pottery were recovered from the Bridge Marshes on the north side of Buss Creek. The fabric of the pottery indicates that both were produced locally, the early jar in Suffolk or Norfolk in the 11th or 12th century, the later vessel in northern Suffolk in the 14th or 15th century. It is noteworthy, given that Suffolk is a clay-rich county that the post-medieval brick from Trench 10 (deposit (26)) was not locally-made but

originated in Leeds. This also bears testament to the greatly increased level of communications and transport which existed by the post-medieval period.

The precise layer in Trench 4 from which the early medieval potsherd came is uncertain, as it was disturbed by machine excavation, but it is thought to have been from in the peat, one metre or more beneath the current field surface.

Soil samples were taken from the majority of deposits in the marshland areas but the paucity of dating evidence associated with these deposits unfortunately meant that specialist environmental analysis would have provided no meaningful results. The decision was therefore taken to process just one full sequence and one additional silt sample as examples. Assessment of the plant macrofossils and other remains from the soil sequence in Trench 1 suggested that the deposits within that trench had formed relatively quickly in very wet or waterlogged conditions, possibly through flooding. Unfortunately, none of the deposits contained any archaeological material or objects and although the lowest deposit ((5), Sample <4>) contained charcoal, it was thought by the environmental specialist that radio-carbon dating would be unlikely to provide an accurate date due to the wet nature of the deposit and the likelihood that it would have absorbed soluble carbon from the surrounding soil.

One of the considerations of the project was to identify the tidal influence on the river and to determine if formerly brackish conditions had existed just inland of the coastal town of Southwold. To this end, a single sample of silty clay (11) <19> was analysed from the sequence of 'alluvial' deposits sampled in Trench 3. This analysis indicated that the sediments had been laid down in watery conditions consistent with a river alluvium, but it could not be determined for certain whether this had also been a tidal environment. No pollen or foraminifera were present (which could have given some indication as to the environmental conditions under which the sediments accumulated), and the sample did not contain any diatoms. It did contain green glauconitic sand grains derived from a marine environment, but it is possible that this sand may have been mixed in from older sediments in the valley by the action of the river. It is thus possible but by no means conclusive that this area of the marsh had been tidal in the past.

No evidence of Saxon activity or of maritime use of this part of the creek was discovered.

Acknowledgements

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Soil analyses were undertaken by Val and Robert Fryer and Fran Green. The finds were processed by Lucy Talbot and recorded by Rebecca Sillwood. The medieval pottery was reported on by Andrew Peachey, the post-medieval pottery and ceramic building material by Sue Anderson, and the clay pipe, iron and glass by Rebecca Sillwood.

The report was edited by Jayne Bown and illustrated and produced by David Dobson.

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Appendix 1a: Context Summary

Context	Category	Cut Type	Fill Of	Description	Location
1	Deposit			Topsoil in Tr.1	Trench 1
2	Deposit			Light grey silty clay	Trench 1
3	Deposit			Humic, dark brown peaty soil	Trench 1
4	Deposit			Mid-reddish-brown woody peat	Trench 1
5	Deposit			Grey sandy silt (or silty sand)	Trench 1
6	Deposit			Topsoil (same as 1)	Trench 2
7	Deposit			Sticky orange-grey clay	Trench 2
8	Deposit			Grey clay with spots of black	Trench 2
9	Deposit			Rich, dark brown woody peat (as 4)	Trench 2
10	Deposit			Oyster bed with coal	Trench 3
11	Deposit			Grey silt with some organic content	Trench 3
12	Deposit			Dark brown leafy and woody peat in	Trench 4
13	Deposit			Mid-orangey-brown peat with reeds in	Trench 4
14	Deposit			Topsoil	Trench 4
15	Deposit			Sticky grey clay	Trench 4
16	Deposit			Topsoil in	Trench 5
17	Deposit			Subsoil	Trench 5
18	Deposit			Grey, sandy layer	Trench 5
19	Deposit			Topsoil	Trench 6
20	Deposit			Subsoil	Trench 6
21	Cut	Pit		Pit	Trench 10
22	Deposit		21	Fill of pit [21]	Trench 10
23	Cut	Pit		Pit	Trench 10
24	Deposit		23	Fill of pit [23]	Trench 10
25	Cut	Pit		Pit	Trench 10
26	Deposit		25	Fill of pit [25]	Trench 10
27	Cut	Pit		Pit	Trench 10
28	Deposit		27	Fill of pit [27]	Trench 10
29	U/S Finds			Unstratified finds	Trench 4
30	U/S Finds			Unstratified finds	Test hole 4

Appendix 1b: OASIS Feature Summary

Period	Feature Type	Quantity
Post-medieval/Modern	Pit/Ditch	5
Modern	Pit	1
Unknown	Ditch	1

Appendix 2a: Finds by Context

Context	Material	Qty	Wt	Period
20	Pottery	2	278g	Medieval
22	Clay Pipe	2	8g	Post-medieval
22	Glass	5	965g	Post-medieval
22	Pottery	80	3,536g	Post-medieval
24	Ceramic Building Material	1	657g	Post-medieval
24	Iron	1	52g	Post-medieval
24	Pottery	2	253g	Post-medieval
26	Ceramic Building Material	2	1,869g	Post-medieval
28	Ceramic Building Material	2	1,676g	Modern
28	Glass	1	26g	Modern
28	Pottery	1	58g	Post-medieval
29	Pottery	2	190g	Med./Post-Med.
30	Pottery	4	361g	Post-medieval

Appendix 2b: OASIS Finds Summary

Period	Material	Total
Medieval	Pottery	2
Med./Post-Med.	Pottery	2
Post-medieval	Ceramic Building Material	3
	Clay Pipe	2
	Glass	5
	Iron	1
	Pottery	87
Modern	Ceramic Building Material	2
	Glass	1

Appendix 3: Pottery

Context	Fabric	Form	Rim	No	Wt/g	Spot date
20	ENW	Jar		2	278	11th – 12th century
22	LSRW	bowl	EV	11	1788	18th-19th century
22	REFW	plate	EV	1	80	L.18th-20th century
22	REFW	bowl?	EV	1	13	L.18th-20th century
22	REFW	chamber pot	CAV	1	149	L.18th-20th century
22	REFW	bowl	UPPL	2	94	L.18th-20th century
22	REFW	jar		1	91	L.18th-20th century
22	REFW	mug?		1	24	L.18th-20th century
22	REFW	plate	EV	2	58	L.18th-20th century
22	REFW			2	24	L.18th-20th century
22	REFW	mug	UPPL	1	35	L.18th-20th century
22	REFW			1	29	L.18th-20th century
22	CRW			1	30	1730-1760
22	ESW	jar	BD	21	510	17th-19th century
22	ESW	jar	BD	10	125	17th-19th century
22	ESW	jar		1	28	17th-19th century
22	ESW	bottle?		1	114	17th-19th century
22	ESW	bottle?		1	27	17th-19th century
22	ESW	bottle		1	91	17th-19th century
22	GSW			1	41	16th-19th century?
22	YELW	bowl		5	135	L.18th-19th century
22	PORC	saucer	PL	1	34	18th-20th century
22	PORC	cup?		13	16	18th-20th century
24	REFW	bowl	UPPL	4	253	L.18th-20th century
28	YELW			1	58	L.18th-19th century
29	LMT	lid		2	190	14th – 15th century
30	REFW	dish	EV	1	227	L.18th-20th century
30	REFW	plate	EV	1	64	L.18th-20th century
30	REFW	teapot?		2	70	L.18th-20th century

Appendix 4: Ceramic Building Material

Context	Fabric	Form	No	Wt/g	Length	Width	Height	Glaze	Comments	Date
24	wfs	MB	1	657		110	20-38		shaped slightly convex surface	18/19
26	wfs	MB?	1	376		113	22-24		same as (24)?	18/19
26	wfs	LB	1	1493		112	73	G	glazed on stretcher, double frogged - stamped CLIF.../WORTL... and ...ONS / ...Y.LEEDS	19
28	wcs	QFT	1	952	151	151	22		moulded back	L.19/20
28	comp	RT	1	724		162	12		machine-made	L.19/20

Appendix 5: Plant Macrofossils and Other Remains

Sample No.	1	2	3	4
Context No.	2	3	4	5
Dry land herbs				
<i>Carduus</i> sp.	xcfw			
Chenopodiaceae indet.	xw			
<i>Persicaria maculosa/lapathifolia</i>			xw	
<i>Potentilla</i> sp.		xcfw	xcfw	
Wetland/aquatic plants				
<i>Carex</i> sp.		xw		
<i>Hydrocotyle vulgaris</i> L.		xw		
<i>Lycopus europaeus</i> L.		xw		
<i>Potamogeton</i> sp.		xw		
<i>Ranunculus flammula</i> L.		xw		
Tree/shrub macrofossils				
<i>Rubus</i> sp.	xw	xw		
Other plant macrofossils				
Charcoal <2mm	x	xx	x	xxx
Charcoal >2mm			x	x
Charcoal >5mm		x		x
Waterlogged root/stem	x	xxx	xxxx	xxxx
Indet.buds		xw		
Indet.seeds			xw	
Indet.twigs			xxw	xw
Wood frags >5mm			xxw	
Other remains				
Black porous 'cokey' material	x	xx		
Black tarry material	x	x		
Mineralised soil concretions	xxx	xxx		
Small coal frags.	x			
Waterlogged arthropod remains	x	x	xx	x
Sample volume (litres)	2	2	2	2
Volume of flot (litres)	<0.1	0.4	1.8	0.4
% flot sorted	100%	25%	<10%	25%

Key

x = 1–10 specimens xx = 11–50 specimens xxx = 51–100 specimens xxxx = 100+ specimens
 cf = compare w = waterlogged/de-watered