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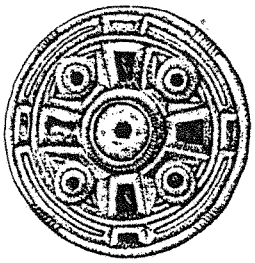

Archaeological Field Unit

Excavation of Early Medieval Settlement Remains: An Archaeological Investigation of the Wereham Sewerage Scheme, Norfolk

S Leith & N Oakey

1997

Archaeological Field Unit
Fulbourn Community Centre Site
Haggis Gap, Fulbourn
CAMBRIDGE, CB1 5HD
Tel: (01223) 576201
Fax: (01223) 880946

Cambridgeshire County Council

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S Leith BA, MA, AIFA &
N Oakey MA, MIFA

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Editor P Spoerry B Tech, PhD
Illustrator M Paice BA

With Contributions by L Higbee MSc, S Membery HND, BSc & P Spoerry B Tech, PhD

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Archaeological Field Unit
Cambridgeshire County Council
Fulbourn Community Centre
Haggis Gap, Fulbourn
Cambridgeshire CB1 5HD
Tel (01223) 881614
Fax (01223) 880946

SUMMARY

From December 1995 to May 1996, the Archaeological Field Unit of Cambridgeshire County Council carried out archaeological recording along the route of the Wereham Sewerage Scheme. The work was undertaken on behalf of the Norfolk Archaeological Unit, for Anglian Water.

Excavation of the pipeline easement adjacent to a medieval moated site (SMR 13294, TF 687 006) revealed early medieval settlement remains. This was represented by a series of boundary ditches, several pits, and part of a post-built structure. These features, and an associated occupation layer, produced an assemblage of pottery which has been dated to the twelfth century.

Field-walking and observation of the stripped easement revealed mostly modern features and artefacts. The exception was the field immediately to the west of the moated site, where early medieval pottery was recovered.

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AN ARCHAEOLOGICAL INVESTIGATION OF THE WEREHAM SEWERAGE SCHEME, NORFOLK

INTRODUCTION

From December 1995 to May 1996, the Archaeological Field Unit of Cambridgeshire County Council carried out archaeological recording along the route of the Wereham Sewerage Scheme. The work was undertaken on behalf of the Norfolk Archaeological Unit, for Anglian Water.

The pipeline follows a new route over a distance of about 3.15km. It begins at the Flegg Green pumping station to the south of Wereham, and runs roughly east-south-east, to the north of Wretton and ending near Stoke Ferry (Figure 1).

The work on the pipeline route was divided up into three stages: 1) excavation and recording of archaeological features within the easement adjacent to a medieval moated site (SMR 13294); 2) fieldwalking and metal detector survey of the pipeline route in advance of construction; and 3) occasional monitoring of easement stripping.

GEOLOGY AND TOPOGRAPHY

The pipeline ran for 3.15kms, following the 10m contour for most of its course through the parish of Wereham, before falling towards the 5m contour as it proceeded through Wretton and on to Stoke Ferry. To the north of the alignment, the ground rose quickly to a ridge at *c*22m AOD (Above Ordnance Datum), which is the location of the settlement of Wereham and the modern course of the A134. To the south the ground falls slightly towards the Black fens.

Most of the land traversed was arable, with only Fields C and L under pasture at the time of the project.

ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The main source for the archaeology of the area under study is the Norfolk Sites and Monuments Record (SMR) housed at Gressenhall. Documentary and printed sources were consulted at the Norfolk Record Office (NRO) and the Norfolk Studies Library at Gildengate House, Norwich.

Metal detecting in a field 250m to the south of the pipeline (TF 677 008) has recovered artefacts from the Bronze Age (SMR No. 30128) and Romano-British (29910, 30129) and medieval periods (29909, 29910). A further concentration of finds derives from around Wereham village and results from either metal-detecting or casual recovery. The only recent archaeological fieldwork under controlled conditions took place in the southern part of Wereham village (TF 68280137) in September 1995 (SMR 31535) when a prehistoric flint scraper was found in an

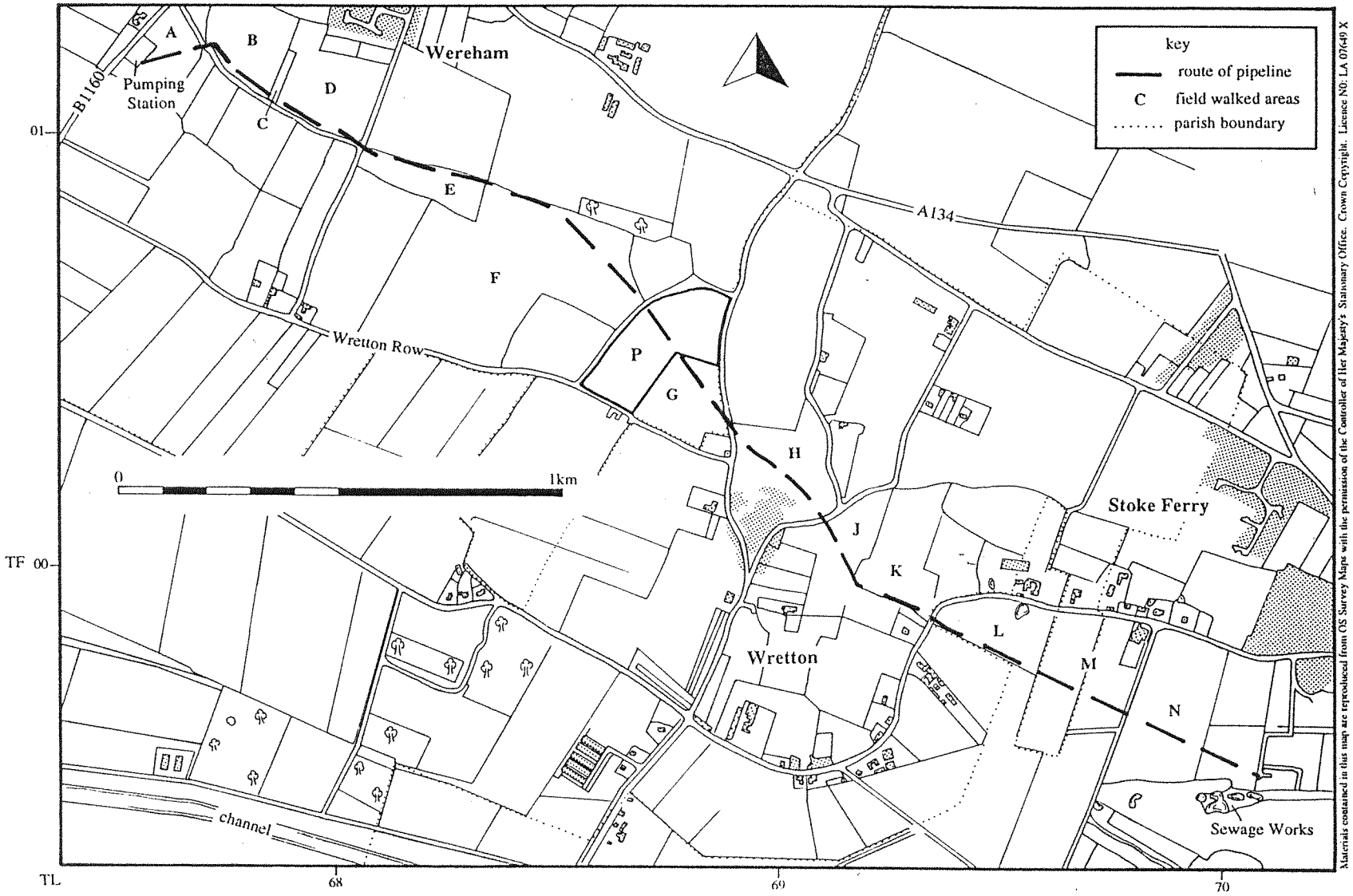

Figure 1: Location of the pipeline route

evaluation excavation. No sign of structures or other forms of activity of archaeological significance were noted during this operation.

Chance finds in Wereham village date from the Romano-British (SMR 4409, 28133, 29908) and medieval periods (23133, 23155, 29911). A scatter of pottery at TF 6830 0120 (4409) may indicate Romano-British settlement, while a brooch of 6th century date from *c*250m north of the pipeline (28133) might result from early Anglo-Saxon activity.

Evidence of settlement is more apparent in the medieval period. Both Wereham and Wretton churches contain Norman architecture (Pevsner 1962, 370, 392) and aerial photography provides more clues to the pattern of activity in the area. Cropmarks of ridge-and-furrow agriculture of medieval or later date were apparent in 1969 (SMR 25388) in a field which now forms the southern part of Field F, and part of a moat (SMR 13294) was visible from the air in Field P. The latter had been mapped in 1840 and 1905 and slight undulations in the ground are still apparent. Speculation has arisen as to whether it represents the location of Wiron Hall (see below). A further moated site (SMR 2561) is visible as a pond 600m north (TL 6985 9993) of the pipeline where it crosses field M, but some of this site is now obscured by modern buildings.

Wereham is mentioned in Domesday Book, but Wretton is not. Blomefield speculated that this was because Wretton formed part of the same manorial holding as Wereham (Blomefield 1807, 509). This was certainly the case later in the medieval and post-medieval periods when Wereham was split between Wereham Hall and Yren, Wiron or Iron Hall and the latter also had jurisdiction over Wretton and Stoke Ferry. Blomefield comments of "Wyrun Hall" (*sic*) that it "stood in a close at the eastern part of Wereham, on the west side of the lane that leads to Wretton, commonly called Stoneaks Close, but more probably Stokes-Close; it takes its name from a run or stream of water, here arising, and the manor extends into Wretton and Stoke" (*ibid* 506). The Tithe Map of 1840 (NRO MC 62/47 M2) labels a field west of the modern Chequer's Lane as "Stone Oaks", but this field is to the north of that crossed by the pipeline. On the same map a moat is marked in the field traversed by the pipeline and it is also visible as a pond on the 1905 OS map. The map which accompanied the 1818 Enclosure Award (NRO C/Sca 2/275) labels the more northerly field "Stone Werk field", and this may derive either from the presence of foundations and demolition debris or from the quarrying of stone from this field. It may be significant that, also on the 1818 map, an enclosure east of Chequer's Lane (*i.e.* on the opposite side of the lane from the moat) is labelled "Iron Hall". This map also shows that the field boundaries have changed little since enclosure in 1818, although the increasing mechanisation and commercialisation of agriculture has resulted in some amalgamation of smaller fields into larger units. Much of this process has taken place since 1905.

Unfortunately, only one of the fields crossed by the pipeline is given a name on the 1818 map. Field B is called "Stone Pit", suggesting the presence of a quarry at some time. The lack of names makes it impossible to trace the earlier history of the fields, so that despite the good survival of the records of the manorial courts of Wereham and Iron Halls as well as rental agreements (NRO Paine & Brettell collection), it was not possible to derive more information from this source. A good collection of records survives from the 17th and 18th centuries with some items from the 14th, 15th and 16th centuries.

In Field N at TL 6988 9964 the pipeline crossed the former line of the Downham and Stoke Ferry Railway (opened 1822, closed 1982). At this point all sign of the railway has been removed and ploughed away.

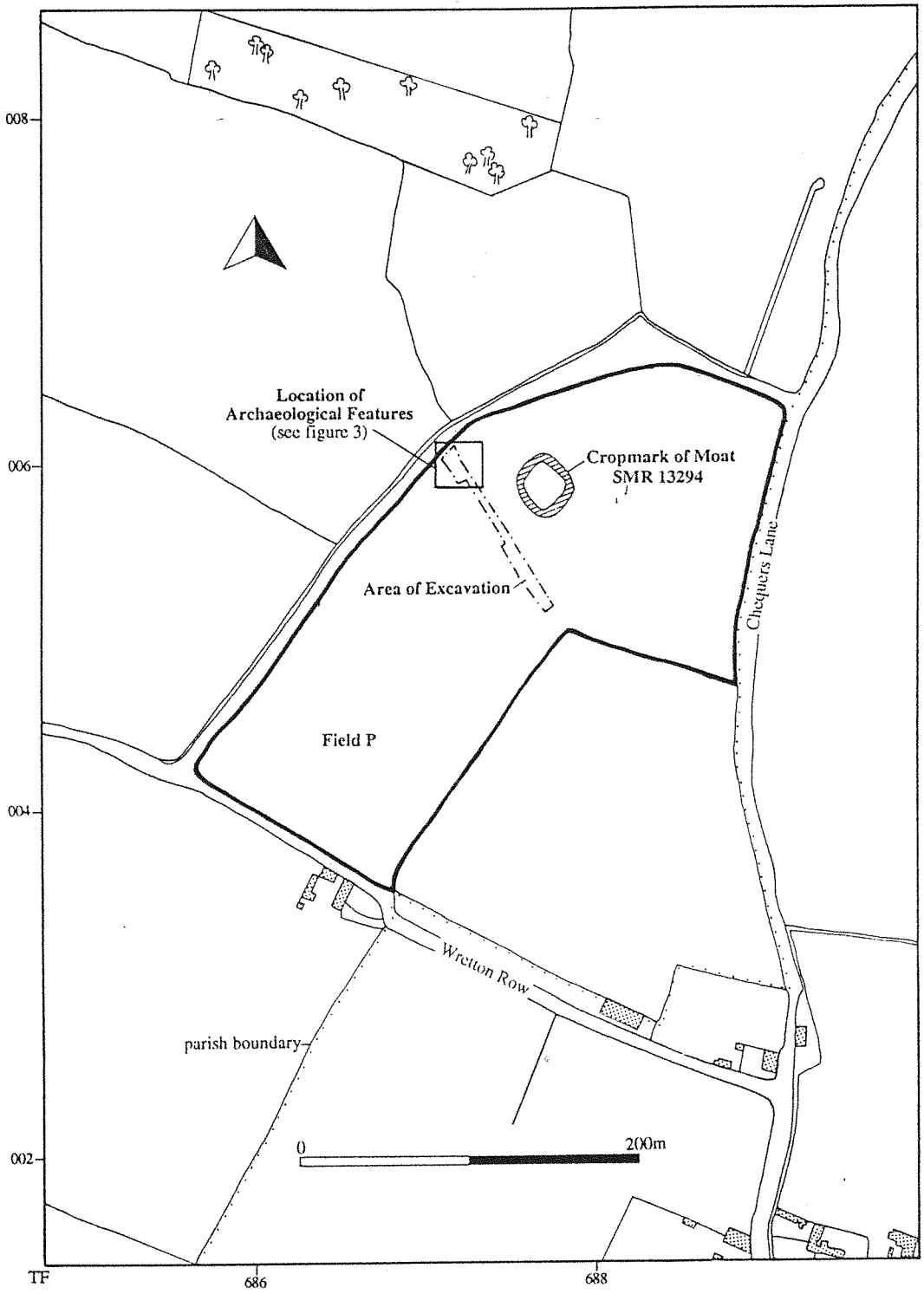

Figure 2: *Location of the excavation area in Field P*

In summary, before fieldwork began the pipeline was known to run close to the known location of two medieval moats, but the distribution of artefacts of earlier periods owes more to the selection of fields for examination by metal detectors and the incidence of modern development near Wereham than to any true reflection of the pattern of activity or settlement in the past.

EXCAVATION IN FIELD P, ADJACENT TO THE MOATED SITE (SMR 13294)

The pipeline route passes within 15 to 20m of the moated site (SMR 13294), and was therefore considered to have high potential for archaeological remains in this field. The brief stated that the area of the moat should be monitored more carefully than the rest of the route, with the topsoil being stripped under close archaeological supervision.

The moated site is located in a cultivated field to the south-east of Wereham and north of Wretton, adjacent to Chequer's Road (TF 687 006) (Figure 2). It lies on chalk, at a height of about 7.7m OD.

The moat at Wereham is one of about 400 medieval moated sites in Norfolk. The majority are located on the Boulder Clay in the central part of the county, however this moat is part of a cluster of moated sites in west Norfolk, near the Fen edge on the chalk (Rogerson 1994, 66). It is roughly square, and encloses an area of *c* 400m2 (Figure 2). This moated site is probably the location of Wiron Hall, mentioned above.

The moat has been ploughed out, and the pond marked on the OS map of 1928 which was a remnant of the moat has since been in-filled. However, the ditch is visible as a cropmark on aerial photographs.

METHODOLOGY

The topsoil stripping in this field was conducted under close archaeological supervision. The easement was machine excavated using a JCB with a toothless ditching bucket in order to reveal any archaeological features in plan. The machine was also used to remove layer 12, after it had been recorded, in order to reveal any features sealed beneath it. The stripped area was cleaned and photographed, and the archaeological features revealed were sample excavated. These were planned and recorded according to the Archaeological Field Unit's standard single context recording system.

RESULTS (Figure 3)

The archaeological features revealed within the easement were located at the north-west edge of the field, adjacent to a deep ditch flanking a track. The majority of the easement showed modern plough marks in the natural orange brown silty clay and chalk beneath the topsoil, however these were not apparent at the north-west end of the easement where the archaeological features were located. This suggests that the archaeology was preserved here because this part of the field was not subjected to

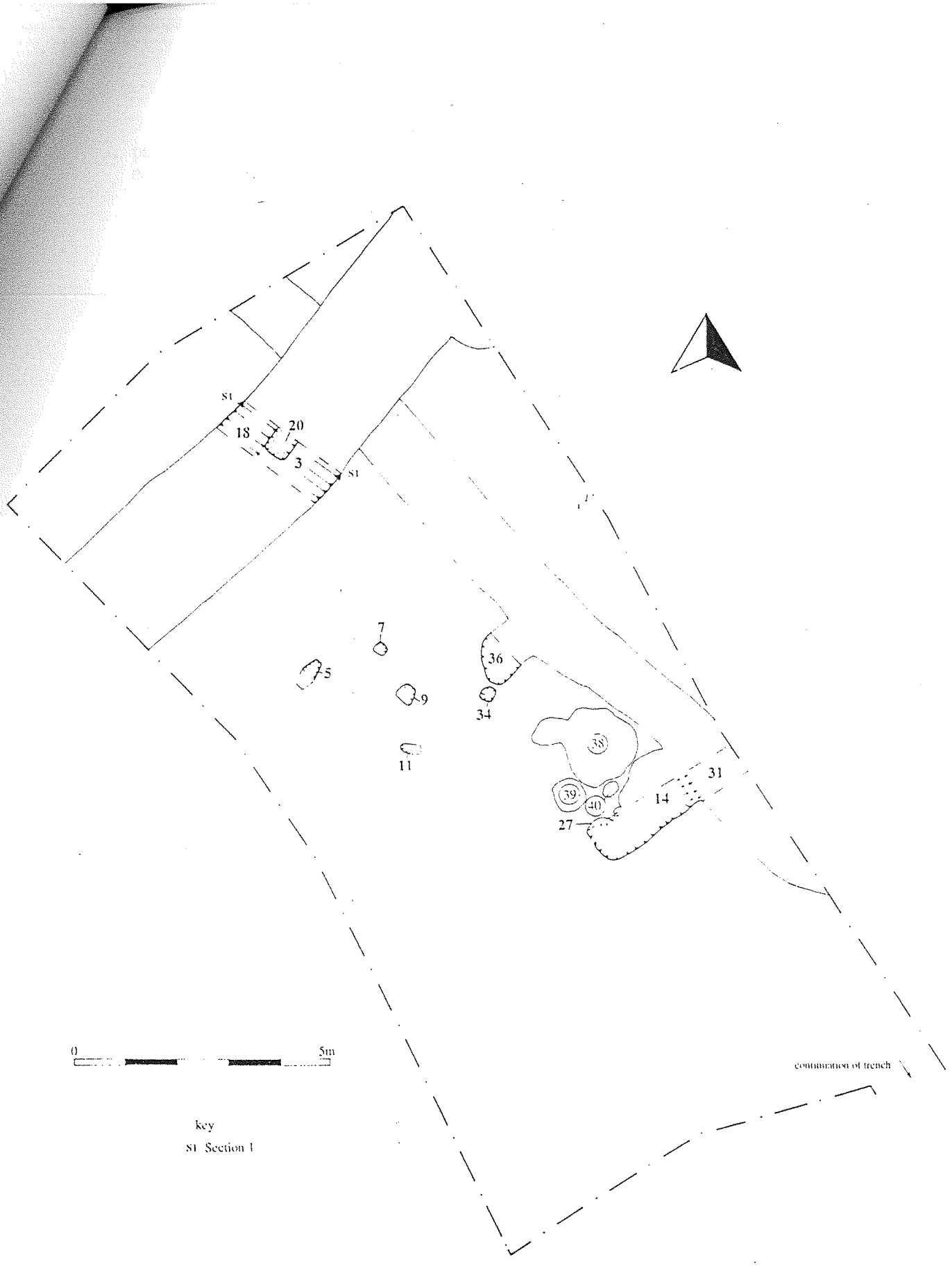

Figure 3: *Multi-phase plan of excavated features (layers 12 and 28 are not shown)*

pan-busting or deep ploughing. The ploughsoil was *c* 0.50m thick throughout the easement.

Pits

A number of pits were located in a group, adjacent to ditch **31**. They represent the earliest phase of activity on the site.

A sub-rectangular pit, **27**, measured 0.9m by 0.5m and 0.43m deep, with very steep sides and a concave base. The fill, 26, was a brown sandy silty clay, with occasional chalk and charcoal flecks. 26 was cut by pit **14**.

Pit **14** was sub-oval in plan, measuring 1.5m by 1.4m and 0.38m deep. The sides were steep and slightly concave, with a fairly flat base. The lower fill, 15, was a dark greyish brown silty clay with occasional charcoal flecks and contained animal bone and a large amount of pot sherds. The upper fill, 13, was a dark grey silty clay with some ash and charcoal flecks, and containing animal bone, shell, fragments of Niedermendig lava quern, and a large amount of pottery. 13 was cut by the ditch **31**.

Pit **36** was shallow and was probably heavily truncated. It was sub-oval in plan and measured 1.1m by 0.86m and 0.16m deep. It had straight vertical sides and a flat base. The fill, 35, was an olive silty clay with occasional chalk flecks, and contained pottery, animal bone, and shell. The relationship between this pit and the ditch **31** was not established, but 35 was sealed by layer 28.

A posthole, **34**, was located adjacent to pit **36**. It was sub-circular in plan, 0.28m in diameter and 0.28m deep, with vertical sides and a flat, sloping base. The fill, 33, was an olive silty clay with occasional chalk flecks. 33 was sealed by layer 28.

Several unexcavated features in this area, also sealed by 28, probably also represent pits and postholes: 38, 39, and 40.

North / south ditch

A straight linear ditch, **31**, ran roughly north / south, with a possible corner or curve to the south where it met the edge of excavation. 15.4m of its length was revealed, and it measured 1.25m wide and 0.5m deep. The ditch profile was a rounded v-shape with slightly concave sides. It contained one fill, 32, a greyish brown silty clay with occasional flecks of charcoal and containing pottery, lava fragments, and animal bone. This ditch cut the fills of pit **14**, and was sealed by layer 28 and cut by the east /west ditch **3**.

Layer 28

This layer extended over part of the stripped area, from the east / west ditch **3** in the north, to about 5 to 10m southwards. It extended up to the edge of excavation to the west and east. It measured up to 0.40m thick, becoming thinner towards the south-east. It was a light olive brown sandy silty clay, with occasional daub fragments, chalk and charcoal flecks. It contained numerous artefacts, including pottery, slag, lava fragments, animal bone, and shell. The finds were most concentrated in areas which corresponded to the location of underlying features. The homogeneity of this layer suggests that it was the result of ploughing, which

would have truncated the features below and incorporated artefacts from these features into the layer.

To the north, the layer only extends up to the ditch **3**, which suggests that this ditch was in use as a boundary at the time when the ploughing occurred. It is located in an area which is slightly lower than the rest of the easement; this may have preserved it from disturbance by modern ploughing.

East / west ditches (Figure 4)

In the north part of the site, a possible fenceline, a ditch and recut marked a substantial boundary which must have been in use for a considerable period of time.

A posthole, **20**, was revealed in the base of ditch **3**, and it appeared to have been earlier than and truncated by the ditch. It was rectangular in plan, measuring a minimum of 0.45m long and 0.46m wide, aligned east / west. It was 0.10m deep from the base of the ditch, but its original depth before truncation must have been *c* 0.45m. The posthole had straight, steep sides and a flat base, and contained two fills, 21 and 19. 21 appeared to be a postpipe, circular in plan, about 0.10m in diameter. It had tapering sides and was the same depth as the posthole. 21 was a dark grey clayey silt, with fragments of chalk and flecks of charcoal. The deposit around 21, 19, was a dark olive brown clayey silt with flecks of charcoal and chalk. 19 contained two sherds of pottery.

A straight, linear ditch, **3**, ran roughly east / west, cutting the north / south ditch **31** and the posthole **20**. 9m of its length was revealed, and it measured a maximum of 1.4m wide, and 0.38m deep. The south side was slightly concave, sloping to a flat base. The north side was truncated away by **18**. It contained one fill, 2, an olive grey clayey silt with occasional fragments of chalk and flecks of charcoal and daub. It contained numerous pot sherds, fragments of burnt clay, animal shell, and bone.

This ditch was cut by ditch **18** which ran on the same line as the earlier ditch, but slightly to the north, truncating the north side of **3**. It measured 1.05m wide and 0.41m deep. It had fairly straight, steep sides and a slightly rounded base. The fill, 17, was a dark grey clayey silt with some redeposited natural chalk and flecks of charcoal, and it contained pottery sherds, lava fragments, animal bone, and shell. This ditch was sealed by layer 12.

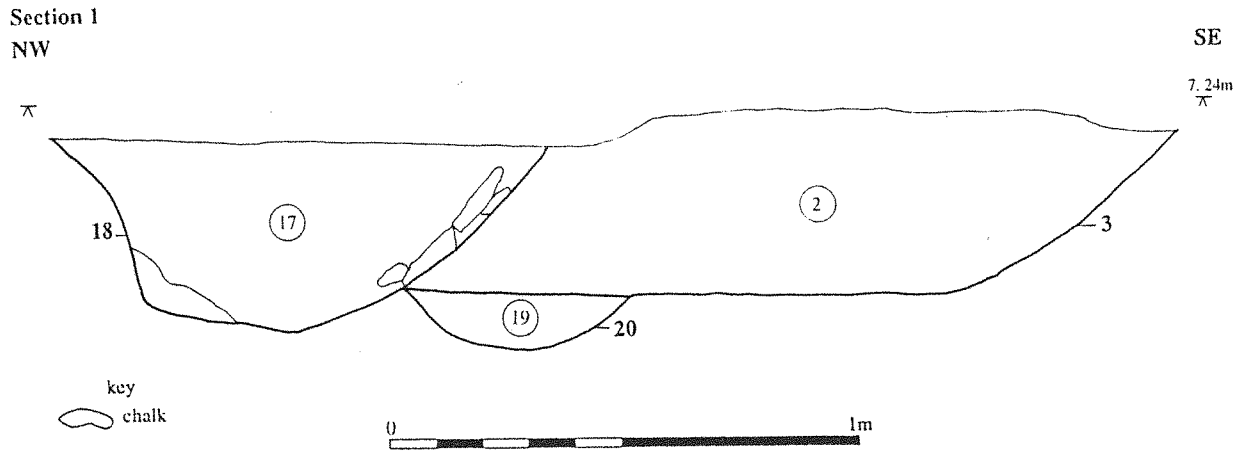

Figure 4: Section 1, showing ditches 3, 18, and posthole 20

Postholes - possible structure

A group of four postholes was located to the south of the ditches **3** and **18**, and they were cut into layer 28. They differed slightly in shape and size, but they all contained similar fills: yellowish brown silty clays mixed with fragments of redeposited natural chalk and fragments of daub. Fills 4 and 6 contained a few sherds of pottery. Posthole **5** was roughly rectangular in plan, measuring 0.47m by 0.23m and 0.20m deep; it had straight, vertical sides and a flat base. Posthole **7** was rectangular in plan and very shallow, measuring 0.25m by 0.18m, and 0.04m deep with a flat base. Posthole **9** was sub-circular in plan, measuring 0.42m by 0.38m and 0.16m deep, with a u-shaped profile. Posthole **11** was rectangular in plan, 0.40m by 0.21m and 0.10m deep, with a u-shaped profile. These postholes were all sealed by layer 12.

A possible posthole, **30**, was located on the edge of ditch **3**. It was circular in plan, about 0.20m in diameter, and contained several large flint nodules which were closely packed. These may have been used for packing around a post.

Layer 12

This layer extended over all of the area where the archaeological features were located, up to the north, east and west edges of excavation and extending south for 14 to 15m. It measured from 0.05m to 0.10m thick. It was a brown sandy silty clay, containing occasional fragments of redeposited natural chalk, daub, and flecks of charcoal. The amount of chalk and daub was greatest where the layer sealed the group of four postholes. This layer contained numerous pot sherds, animal bone, shell, lava fragments, and slag.

This layer was similar in nature to layer 28, and it was probably also the result of ploughing. 12 was overlain by the modern ploughsoil.

DISCUSSION

The stratigraphic sequence on site falls into four main episodes: 1) a group of pits, a few postholes, and the north / south ditch, **31**; 2) layer 28, the east / west ditch **3**, and a possible fenceline; 3) the recut ditch **18**, and a group of postholes (possible structure); and 4) layer 12.

The first episode sees a group of intercutting pits adjacent to a ditch, **31**, running north / south. The pits contained charcoal, animal bone, pottery, shell, and fragments of Niedermendig lava quern, and were clearly used for refuse disposal. The position of the pits adjacent to a boundary ditch may suggest that this area, used primarily for rubbish dumping, was located on the periphery of a settlement, the main centre of which was outside the excavation area, but not far away.

The second episode is represented by layer 28, which extended over all the features of the first episode. As the layer only extended up to the east / west ditch **3** in the north, it is probable that this layer was contemporary with the ditch. Layer 28 has been interpreted as a relict ploughsoil, which incorporated artefacts from the underlying features and also presumably from manuring.

During the third episode, the east / west boundary at the north end of the site was recut. A group of four postholes, containing redeposited chalk and daub, appear to have been part of a structure. Some of these were quite shallow and heavily

truncated, and there could well have been others which were truncated away entirely. It is impossible, therefore, to reconstruct a plan of the structure. Much daub and chalk in the vicinity of the postholes had been incorporated into the overlying layer 12, and this presumably relates to the demolition of the building.

The last episode is represented by layer 12, which extended over all the earlier features. It was very similar to layer 28, and probably also represents an episode of ploughing.

The evidence can be summarised in the following sequence: an episode of occupation, and episode of ploughing, a further episode of occupation, a further episode of ploughing.

It is interesting that an episode of ploughing occurred between two stages of occupation. However, a change in boundaries also occurred at this time, from a north / south boundary (**31**), to an east / west boundary (**3**, **18**). Although at roughly right angles to each other, the new east / west boundary does represent a change in the overall landscape. It is not surprising that this change also sees this area being used for a different purpose.

The east / west boundary at the north end of the site, marked by a possible fenceline (**20**), then a ditch (**3**) and recut (**18**), ran parallel to the present ditch flanking a track (Figure 2). The ditch within the excavation area was only *c* 3m away from the present ditch. A continuity of boundaries, from the early medieval period through to the present, is suggested. The moat appears to share the same alignment.

CONCLUSIONS

The pottery indicates that all four episodes most likely occurred within the period 1100 to 1200 (Appendix B). The evidence of occupation could represent either a small settlement, or peripheral activity related to an adjacent, larger settlement.

Without investigation of the moat itself, it is impossible to know how this settlement relates to the moat. It has been suggested that the size of the moat and its roughly square shape could suggest a twelfth to thirteenth century date (Rogerson, pers. comm.). The occupation revealed within the excavation area could represent either a precursor to the moat, of a less planned nature, or if it were contemporary, this could be part of the ancillary structures and peripheral activities related to the moat.

FIELD-WALKING AND OBSERVATION OF THE STRIPPED EASEMENT

METHODOLOGY

The stripping of the easement took place in three stages. Field A was stripped in November 1995, Fields B-G in April 1996 and Fields H-N in May 1996. Field A was field-walked prior to stripping and the easement was observed after stripping was completed. In Fields B-G a metal detector survey and field-walking took place before stripping and the stripped easement was observed. A breakdown in communication with the contractors meant that stripping of Fields H-N had started before field-walking was possible. However, crops had grown to such an extent that field-walking would probably have served little purpose.

The pipe-laying operation involved the mechanical excavation of deep, narrow trenches into which the pipes were laid and immediately backfilled.

RESULTS

Metal detecting and field-walking

Metal detecting of Fields B-G was unproductive, yielding the expected collection of modern agricultural ironwork (including horseshoes) and cartridge cases. After examination, the metalwork was discarded at the AFU's base at Fulbourn.

Pottery of 19th century or later date and brick, tile, slate, coal and modern glass were not collected during field-walking, but it was noticeable that these items were very sparse. Fields B-E are at the base of a pronounced slope and it is possible that an accumulation of colluvium (hillwash) has lessened the impact of ploughing on archaeological deposits and, hence, lessened the likelihood of artefacts appearing on the surface.

Few objects were recovered from most of the fields, the marked exception being Field F where pottery became more frequent as the excavation site in Field P was approached. Field G, in contrast, produced only one object, a possible hammer stone. The objects recovered fell predominantly into two categories - pottery and worked flint.

Observation of the stripped easement

In almost all fields, stripping involved only the removal of topsoil (occasionally not even all this was removed) with very little penetration of subsoil. Field N was an exception (see below). Consequently all features observed were modern and included field-drains, backfilled ditches, and bricks or other building debris forming a standing in a gateway in Field L. Pits backfilled with modern rubbish were seen in Fields E and F. No sign of the former railway line was seen in Field N.

In Field H (at TF 6905 0022) a pit penetrated the subsoil and contained the almost complete skeleton of a single, adult dog of sheepdog size (Lorrain Higbee *pers comm*). The cranium was missing, but a lower mandible was present from another dog. This specimen appeared to be smaller in size and, judging by the wear on the

teeth, older. The bones probably result from the relatively recent disposal of pets or working dogs, possibly from nearby Willow Farm.

The stripping of Fields M and N revealed a distinctive yellowish-white sand. Centred at TL 6994 9962 and crossing the course of the easement at right-angles was a relict river channel, *c*60m wide with a dark brown peaty clay infill. Along its western extremity was *c*1.5m width of pebbles and gravel and running through the middle of the peaty clay fill was a live ditch/drain, marked on the 1818 Enclosure Award. It is assumed that the sands in Fields N and M were deposited in flooding by this river, but the date at which it ceased to function is unknown.

ACKNOWLEDGEMENTS

The authors are grateful to the Norfolk Archaeological Unit for commissioning this work. The fieldwalking and observation of the stripped easement were directed by Mr Oakey, and the excavation in Field P was directed by Ms Leith. Spencer Cooper, Carole Fletcher, Scott Kenney, and Wendy Wilson assisted in the excavation. The metal detecting was carried out by Chris Montague of the AFU, who also assisted in the field-walking. The animal bone was identified by Lorrain Higbee MSc of the AFU. References from the Norfolk Sites and Monuments Record were provided by Edmund Rose and Mr Oakey would like to thank the staff of Norfolk Record Office and the Norfolk Studies Library for their help and hospitality. Ms Leith would like to thank Gerry Williamson of Anglian Water and Brian Dixon of J. Breheny Contractors Ltd for their cooperation on site, and Andrew Rogerson for information about the moated site. Project administration was carried out by Paul Spoerry in liaison with Brian Ayers of the Norfolk Archaeological Unit.

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APPENDIX A - Context List 13294 WER

Cntxt	Description	Nature	Above	Below	Finds
1	Unstratified finds				pot, bone
2	Fill of ditch 3	olive grey (5y 4/2) clayey silt	3	18, 30	pot, burnt clay, bone, shell
3	Linear ditch (east/west)	concave sides, flat base	23, 21	2	
4	Fill of posthole 5	yellowish brown (10YR 5/4) silty clay with redeposited natural and daub	5	12	pot, burnt clay
5	Posthole	rectangular, vertical sides and flat base	28	4	
6	Fill of posthole 7	yellowish brown (10YR 5/4) silty clay with redeposited natural and daub	7	12	pot
7	Posthole	rectangular, very shallow	28	6	
8	Fill of posthole 9	brown (10YR 5/3) silty clay with redeposited natural and daub	9	12	
9	Posthole	sub-circular, concave sides and base	28	8	
10	Fill of posthole 11	yellowish brown (10YR 5/4) silty clay with redeposited natural and daub	11	12	
11	Posthole	rectangular posthole, straight sides tapering to flat base	28	10	
12	Layer	brown (10YR 5/3) sandy silty clay with redeposited natural and daub	17, 29, 4, 6, 8, 10	topsoil	pot, slag, tile, lava quern, bone, shell
13	Fill of pit 14	dark grey (10YR 3/1) silty clay	15	31	pot, lava quern, bone, shell, iron knife
14	Pit	sub-oval, steep sides, flat base	26	15	
15	Fill of pit 14	dark greyish brown (10YR 4/2) silty clay	14	13	pot, bone
17	Fill of ditch 18	dark grey (5y 4/1) clayey silt	18	12	pot, lava quern, bone, shell
18	Recut of ditch 3	concave sides and base	2	17	
19	Fill of posthole 20	dark olive brown (5Y 3/2) clayey silt	20	21	pot
20	Posthole	rectangular, steep sides, flat base	natural	19	
21	Postpipe within 20	dark grey (10YR 4/1) clayey silt	19	3	
23	Same as 32				pot, lava, bone
24	Same as 31				
25	Part of layer 12				pot, burnt clay
26	Fill of pit 27	brown (10YR 4/3) sandy silty clay	27	14	
27	Pit	sub-rectangular, steep sided	natural	26	
28	Layer	light olive brown (2.5Y 5/4) sandy silty clay	23/32, 33, 35	5, 7, 9, 11	pot, slag, flint, bone, shell, lava quern
29	Fill of posthole 30	large flint nodules closely	30	12	

		packed			
30	Posthole	circular	2	29	
31	Linear ditch (north/south)	steep sides, concave base	13	32/23	
32	Fill of ditch 31	greyish brown (10YR 5/2) silty clay	31	3, 28	pot, burnt clay, lava quern, bone
33	Fill of posthole 34	olive (5Y 5/3) silty clay	34	28	
34	Posthole	sub-circular, vertical sides, flat base	natural	33	
35	Fill of pit 36	olive (5Y 5/3) silty clay	36	28	pot, burnt clay, bone, shell
36	Pit	sub-oval, shallow, flat base	natural	35	
38	Possible pit	unexcavated	-	28	
39	Possible pit	unexcavated	-	28	
40	Possible posthole	unexcavated	-	28	

APPENDIX B

Excavation on Wereham Pipeline Easement

Pottery Report

Paul Spoerry BTech, PhD

1 Introduction

The main area excavation on the Wereham pipeline scheme in Winter 1995-96 produced 651 sherds of pottery, totalling 6,153g. Material recovered during the observation of archaeological remains on the rest of the pipe easement is not included in these totals and is not discussed here.

The remains at Wereham have produced an assemblage which appears to date to the late Saxon to Saxo-Norman period. Stratified groups of this date from rural contexts are a rarity in Norfolk (Rogerson pers. comm.) and thus it was felt that the assemblage warranted more than the cursory attention that such a small group might otherwise deserve.

Identification of pottery fabric types was followed by basic quantification by sherd count and weight. Rim Eves were calculated but are not discussed here as they form only a small and, probably, misleading part of the whole assemblage.

As little is known about the ceramic assemblage of similarly-dated sites in the west Norfolk/north east Cambridgeshire border, comparisons and identification have been necessarily with published examples from mostly urban contexts, located some distance away.

2 Stratigraphic assemblages

Few stratigraphic sub-divisions have been considered. The sequence on the site is essentially one of four episodes, plus the topsoil assemblage;

Episode	Representing	Pottery Context Groups	No. of Sherds	Grammes of Pottery
1	Intercutting pits, post hole and ditch	13, 15, 23=32, 35	134	1769
2	Layer (?relict ploughsoil)	2, 19, 28	342	2646
3	Postholes (structure) and ditches	4, 6, 17	54	228
4	Layer (?relict ploughsoil)	12=25	89	1170
5	Topsoil	1	32	340

Table 1 Pottery totals by stratigraphic group

Episodes 1 to 4 are considered in this report. The topsoil assemblage provided a few sherds worthy of illustration but otherwise this material has not been considered. The proportion of each episode assemblage represented by each pottery fabric type (by weight) is shown in Table 2.

	Fabric code								
Episode	EMW	THET	GMT	SHW	STAM	SW	GRIM	UNK	MOD
1	35.5%	1.3%	57.9%	5.1%	0.2%	0	0	0	0
2	23.2%	2%	61.7%	11.1%	0.2%	0	0.3%	1.4%	0
3	61.8%	0	16.7%	17.1%	1.8%	2.6%	0	0	0
4	19.7%	0.3%	71.6%	5.2%	0.6%	0	0	1.9%	0.7%

Table 2 Fabric type totals (percentage by weight) in each stratigraphic group discussed. See 4.1 for explanation of fabric codes.

2.1 Dating and sequence

Table 2 indicates the extent to which the assemblage is dominated by GMT type ware and EMW. The two sherds of glazed Grimston ware found in Episode 2 may be intrusive as their presence, if correct, would indicate a post-1200 date for the whole sequence from this Episode onwards. The date-range for the use of GMT has not been conclusively resolved. It was recognised as ending at Kings Lynn by the start of the thirteenth century (Clarke and Carter 1977, 183), and it was present in the earliest layers excavated, these being dated to the mid eleventh century. At Castle Acre castle it was found to be present before c. 1085, but was only present in any quantity from the early twelfth century (Milligan 1982). At Vong Lane in Grimston, GMT was dominant in Period 0, which the excavators dated to the late tenth/early eleventh to the late eleventh century (Little 1994, 90), but where present alongside unglazed (true) Grimston ware in Period 1, which had an early/mid twelfth to mid thirteenth century date, it was believed to be residual (Lentowicz and Percival, 82). In conclusion it seems that GMT might be expected to have a date -range starting by, at the latest, the mid-eleventh century, and finishing by *circa* 1200. A date at the very end of this bracket could also include unglazed 'true' Grimston ware.

EMW is known from several sites in the west Norfolk area. At Castle Acre castle it was dominant in the sequence from the earliest deposits which dated to the second half of the 11th century, through into the late twelfth century (Milligan 1982). Further afield, at Norwich, similar material has been dated to the period from the eleventh to early twelfth century (Atkin *et al* 1983) whilst at great Yarmouth it may run on until the early thirteenth century (Mellor 1976). The rather restricted date-range at Norwich seems least applicable to this site and it is perhaps best to see this type as being present from the early eleventh until the late twelfth/early thirteenth century.

It is therefore apparent that where dominating an assemblage, GMT and EMW are perhaps both indicators of an early-mid eleventh to a least late twelfth century date. Bearing in mind the presence of a very small amount of glazed Grimston pottery, it seems possible that the Episode 2 assemblage dates to the very end of this period. It must be borne in mind, however, that two sherds of characteristically later material are not necessarily reason enough to give a definitely later date, especially considering that excavation was carried out in typically difficult winter conditions.

2.2 Conclusions regarding the pottery types represented

No significant trends are apparent in the amount of each pottery type present in each Episode assemblage. In all four cases, GMT and EMW dominate, with variations in the actual proportion of these two types evident, but liable to be of little consequence.

Shelly ware is a type that shows similarity with Developed St Neots type ware. It appears perhaps in the twelfth century, and in its core distribution area of Hunts. and Northants, it is found throughout the following two hundred years or more (Tebbutt,

Rudd and Moorhouse 1971; a more recent discussion is contained in Spoerry forthcoming). The presence of a small amount of Shelly ware throughout this assemblage indicates that a type that is characteristic of the region to the west is also present at small rural sites in west Norfolk, albeit as a minor component.

The presence of a few sherds of Stamford ware is not surprising and is indicative of a date in the period before the late twelfth century.

2.3 Vessel Types

Table 3 shows the proportion of the major functional types of vessel present in each Episode assemblage. These figures are based on the total weight of sherds for which vessel type is identifiable. Such data contains some inherent bias in that cooking vessels, by nature of the presence of sooting on the vessel surface, are often much more recognisable as body sherds than other vessel types. Thus they are probably over-represented in these figures. Despite such a problem the figures are used here as the assemblage is too small for any other calculation of vessel type to be more accurate.

Episode	Bowls	Cooking Vessels	Jars and Storage Jars	Jugs and Pitchers
1	13.5%	71.8%	0.9%	13.8%
2	37.8%	58.4%	3.6%	0.2%
3	3.2%	94.7%	0	2.1%
4	17.1%	48.3%	33.5%	1%

Table 3 Percentage of assemblage in each major stratigraphic group, attributable to vessel type (where vessel type is identifiable).

Because the sample of sherds that has been used to compile these data is considerably smaller than the whole assemblage used for the comparison of fabric types, more variation, through sample-size error, might be expected. For example, the fact that one third of Episode 4 is composed of jars and storage jars might seem significant, however, this figure derives from only two sherds, one being a very large fragment of a GMT storage jar. Thus the number of vessels represented has not really increased. The 37.8% bowls apparent in Episode 2 is, however, representative of maybe 14 vessels, divided between both SHW and GMT. The presence of bowls in this Episode is therefore probably accurately represented by the statistics. Whether the difference, however, derives from an assemblage that is functionally different to those before and after, or whether the sample is still too small to accurately reflect such changes is a moot point. In general the vessel types represented seem entirely consistent with a domestic assemblage, with food storage, preparation, cooking and consumption represented. At Grimston the proportion of bowls within the occupation period phases at Vong Lane appears to have been over 56% of the total assemblage (Little 1994, 87 Table 4); a figure which is much higher than that represented here. The dominance of cooking pots as seen at Wereham is, however, entirely consistent with that observed at many rural occupation sites of this period elsewhere in the country.

One substantially surviving cooking pot from Episode 2 is of an everted rim type and vessel shape that suggest a twelfth century date, rather than being any earlier (No. 13). In addition the presence of Shelly ware, almost exclusively in angled bowl forms which are usually not present before the twelfth century, and are characteristic of Lyveden-Stanion wares (McCarthy 1979), and of later shelly wares at Goltho, Lincs. (Beresford 198) as well as being a Developed St Neots ware form (Hurst 1976, 323), indicates that activity from Episode 1 onwards cannot start much earlier than 1100. It seems

likely that the whole sequence represented here is of twelfth or very early thirteenth century date, with the possibility that Episode 2 (relict ploughsoil) does not occur until around 1200.

3 Conclusions

This assemblage was thought to be of particular interest because it appeared to be from a *rural* domestic context. Detailed study concurs with that initial interpretation and suggests a date in the twelfth, or possibly very early thirteenth, centuries for the activity. This latter date derives from the presence of a very few sherds of Grimston ware, but the fact that a similarly small number of Stamford ware sherds are present throughout the sequence and these are unlikely to have been manufactured after *circa* 1150, highlights the fact that at least the first Episode of activity here is likely to be at latest of mid twelfth century date. It is perhaps best to think of the whole sequence here being in the period circa 1100-1200 and to not expect any more accuracy from such a small assemblage.

The vessel types represented are entirely consistent with domestic activity, with food storage, preparation, cooking and consumption represented. It is of interest to note that Shelly ware, probably from south Lincolnshire or Northants/Hunts, is almost exclusively present as wide bowls with angled profiles. This form is also represented in Grimston Thetford ware, but the absence of other Shelly ware vessels suggests that a particular vessel type was being marketed, or chosen and utilised, from this source. In addition Early Medieval Ware was used almost exclusively for cooking pots, with almost twice of many sherds of cooking pots in this fabric, as there are in Grimston Thetford ware. Again this seems to illustrate particular markets being filled by specific producers. Grimston Thetford ware is, however, the most dominant type in the assemblage and this source provided vessels in all the major form categories.

4 Additional Information

4.1 Fabric descriptions

Below are macroscopic descriptions of the main fabrics represented in this assemblage. These are not meant to in any way supersede any previous description of these types, particularly at production sites. They are presented to enable easy reference and to identify the range of variation inherent in this group, so that comparisons with that exhibited elsewhere can be made.

Grimston Thetford type ware (GMT)
Medium hard fabric with smooth fracture and sandy surface texture. Inclusions are predominantly abundant fine quartz, mostly circa 0.2mm, but there are also many larger grains, occasionally up to 5mm in diameter. Occasional limestone and grog inclusions are present in some examples. The vessels usually have slightly oxidised surfaces, and margins, often red-brown, but varying quite considerably across some vessels from red-brown to black. Reduced grey surfaces also exist but are less common. All vessels have a reduced grey or dark brown core.

Early Medieval ware (EMW)
Medium hard quartz sand tempered fabric with smooth fracture. Inclusions predominantly common to abundant fine quartz sand, up to 0.5mm, but smaller in size in many examples. The quartz grains are mostly white or opaque and are sub-round. In addition most vessels also have occasional larger quartz grains, often angular and varying in colour up to 2mm. Large limestone and flint inclusions are also sometimes

present. The vessels usually have slightly oxidised surfaces, red-brown to buff, but with reduced dark grey or brown margins and core.

Shelly ware (SHW)
Soft fabric with a slightly soapy feel, but rough due to inclusions, and with a hackly fracture. Common to abundant angular crushed shell fragments up to 5mm in diameter but mostly less than 1mm. Vessels usually have oxidised surfaces, mostly brown or red-brown, with no discernible margin, and a reduced grey core.

4.2 Descriptions of illustrated sherds

Number on illustration followed by context number (in brackets)

Grimston Thetford ware (types after Clarke 1970)

1 (13) Spouted pitcher rim/handle stub; red-brown/black surface and grey core. Type 6

2 (15) Rim with square external profile from a shallow bowl; red-brown/black surface and grey core. Type 1

3 (23) Externally rolled rim from shallow bowl; yellow-brown and black surfaces and margins with grey core. Type 1

4 (1) Externally rolled rim from shallow bowl; orange-brown surfaces and margins and grey core. Type 1

5 (1) Inturned bowl rim with sharp external angle on rim; mid-brown surfaces and margins and grey core. Type 3

6 (28) Inturned bowl rim with sharp external angle and groove below rim; mid-brown surfaces and margins and grey core. Type 3

7 (28) Slightly inturned and rounded bowl rim from deep vessel with groove on body below rim internally and externally; dark brown surfaces and grey core. Type 3

8 (28) Flat-topped and externally-thickened rim of cooking pot or jar in soft, friable fabric; red-brown surfaces with dark grey margins and core. Type 5

9 (28) Inturned bowl rim with rounded profile and groove below rim internally and externally; mid-brown to grey throughout with some grog temper. Type 3

10 (28) Slightly inturned bowl rim with rounded profile; mid-brown surfaces, light brown margins and grey core. Type 3

11 (2) Externally flanged and slightly rolled rim from deep bowl; dark grey surfaces and brown margins and core. Type 2 var

12 (2) Out-turned and slightly lid-seated rim of cooking pot; dark brown surfaces and brown margins and core. Type 5

Grimston C (possibly)
13 (28) Out-turned rim of cooking pot in a soft, friable mid-brown fabric with a grey core. Type 5

Early Medieval Ware

14 (13) Slightly finger-impressed 'piecrust' rim of cooking pot; dark brown to black fabric with sooting and blackening externally.

15 (15) Spout/handle of spouted bowl; re-brown surfaces and grey core except under handle where it is sooted and fire-blackened.

16 (23) Finger-impressed 'piecrust' rim of cooking pot; red-brown external surface, grey-brown internal surface and grey core with slight sooting on rim.

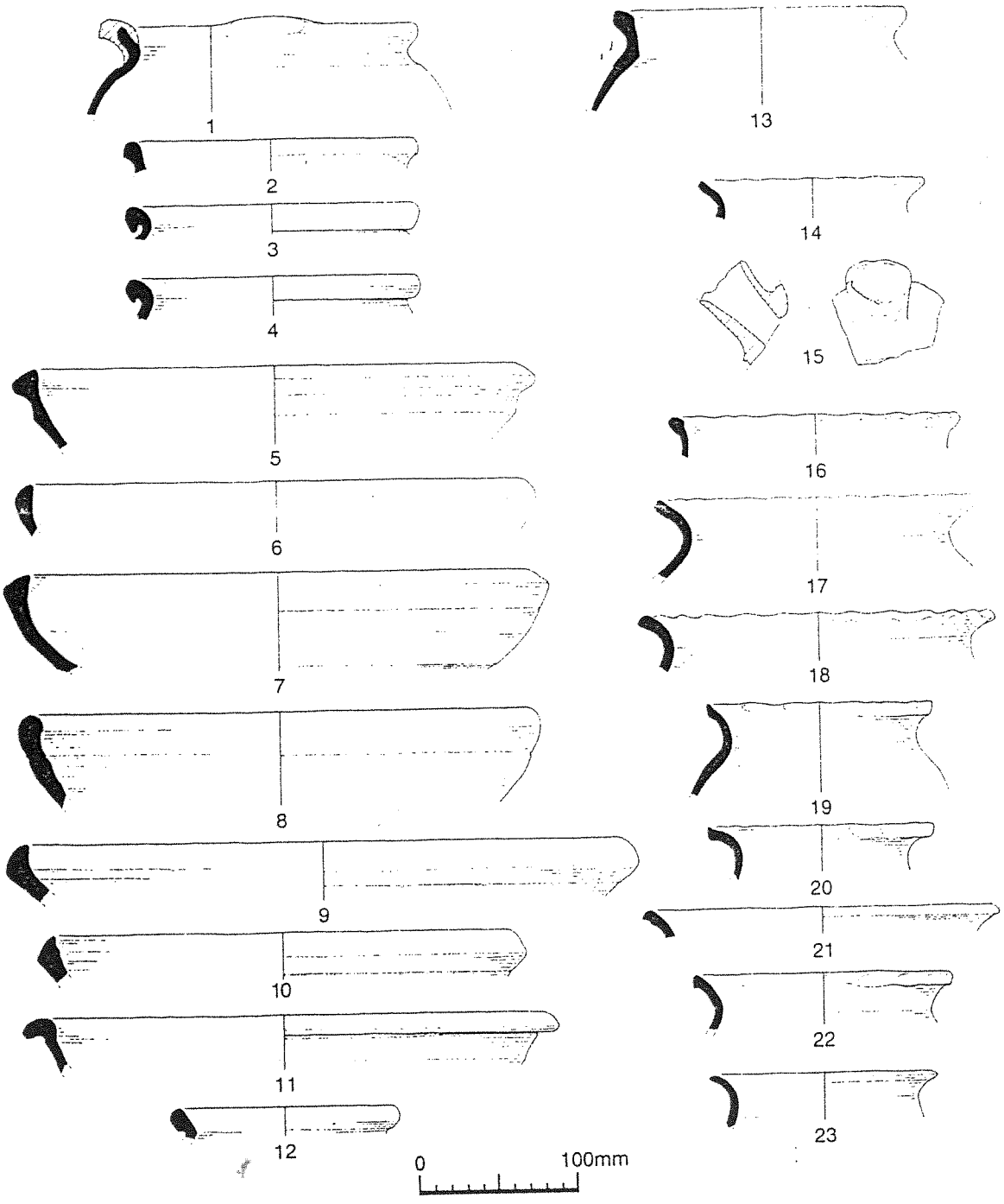

Figure 5: *Sherds of Grimston Thetford ware, Grimston C, and Early Medieval ware*

17 (35) Slightly finger-impressed 'piecrust' rim of cooking pot; buff external surface, dark-grey internal surface and grey core with slight fire-blackening externally on rim.

18 (28) Finger-impressed 'piecrust' rim of cooking pot; red-brown external surface, orange-brown internal surface and dark grey core with a little fire-blackening on external surface of rim.

19 (28) Finger-impressed 'piecrust' rim of cooking pot; dark grey-brown internal surface, dark red-brown external surface and grey core.

20 (2) Finger-impressed 'piecrust' rim of cooking pot; dark brown throughout but covered with mortar deposit after vessel breakage, also external sooting.

21 (2) Simple, flattened, out-turned cooking pot rim; red-brown surfaces and margins and dark grey core with fire-blackening externally on rim.

22 (12) Simple, flattened, out-turned cooking pot rim; coarse quartz temper, orange-brown external surfaces, dark brown internal surfaces and grey core.

23 (12) Simple, flattened, out-turned cooking pot rim; dark-brown surfaces and dark grey core. Sooting externally on rim.

Shelly wares (SHW/ Shelly ware unless otherwise stated)

24 (23) Simple, out-turned rim of small cooking pot in a heavily shell-tempered fabric with a brown external surface, but otherwise mid-grey. Probably a St Neots type ware variant rather than Shelly Ware.

25 (13) Squared rim from angled bowl in medium hard fabric; dark red-brown surfaces and margins and grey core.

26 (23) Rounded rim from angled bowl in medium hard fabric; dark brown surfaces and margins and grey core.

27 (28) Slightly flanged angled bowl rim in medium hard fabric; internal grey surface, external light brown surface and grey core.

28 (28) Squared rim from angled bowl in soft fabric; brown external surface, red-brown internal surface and grey core.

29 (12) Squared rim from angled bowl in medium hard fabric; brown surfaces with grey core.

30 (28) Inturned bowl rim with sharp carination in soft fabric with moderate fine shell up to 1mm; light brown surfaces and grey core. St Neots type ware variant

31 (12) Slightly inturned bowl rim in soft fabric with moderate shell up to 2mm plus occasional coarse, rounded quartz grains and grog; dark brown surfaces, light brown margins and grey core. St Neots type ware.

Ely ware variant

32 (12) Squared and externally-thickened jug rim in medium hard fabric with buff surfaces and dark grey core. Common rounded quartz grains and chalk fragments, mostly up to 1mm, but some larger. Probably a fabric originally

called 'Grimston Software' at King's Lynn (Clarke and Carter 1977), but now believed to originate elsewhere. At the macroscopic level this fabric looks very similar to the calcareous variants of Ely ware and such a provenance seems entirely plausible for this piece.

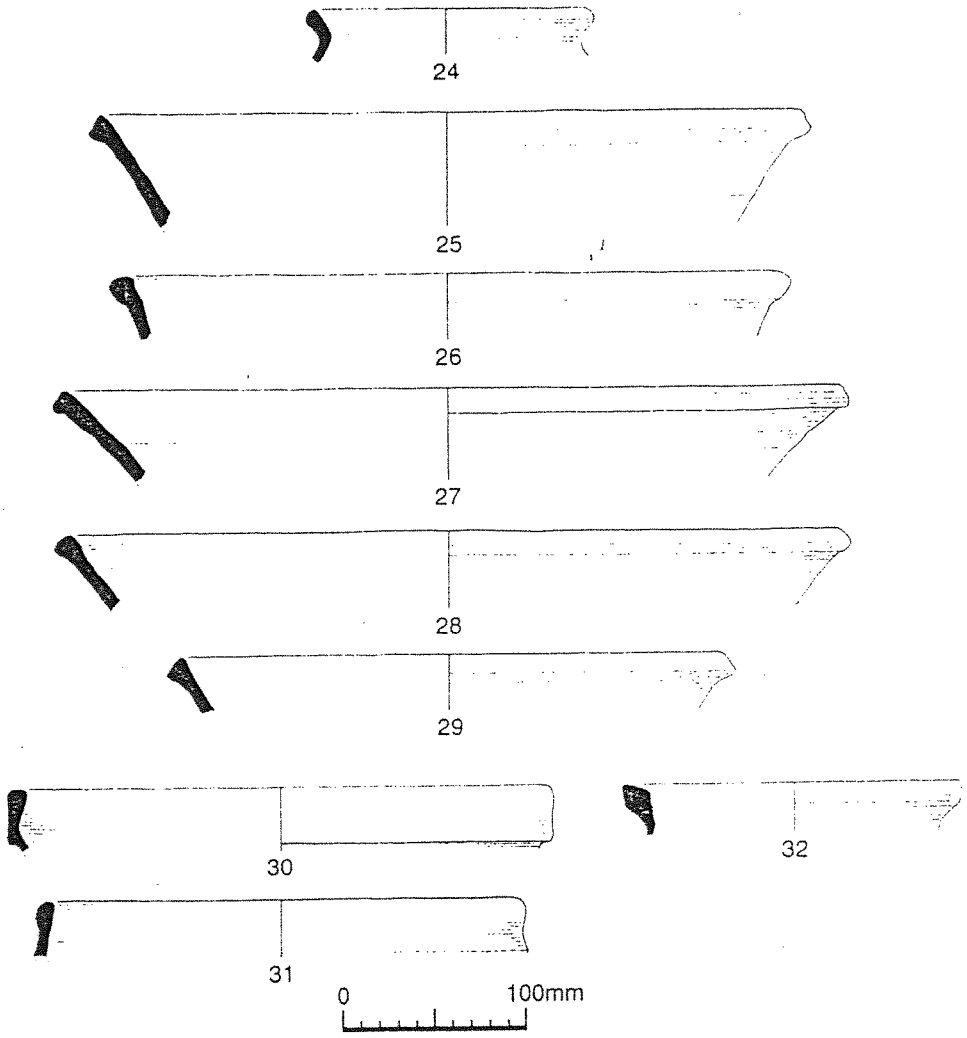

Figure 6: *Sherds of Shelly wares and Ely ware variant*

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APPENDIX C

Wereham Pipeline, Norfolk
Lava Quern Report

Steven Membery

METHODOLOGY

The assemblage comprises of some 1132g of lava fragments all of which presumably derive from quern stones. Despite the friable nature of this material three separate querns were identified, two at the time of excavation and a third in subsequent analysis. Quern 1 and 2 are in a fragmentary condition but limited reconstruction was possible as the material was packaged and stored in a position which reflected its in-situ state. Diagnostic features including thickness, diameter, and surface tooling were measured and recorded on the reconstructed pieces while the fragments were quantified.

RESULTS

Quern 1 is composed of three sizeable pieces (684g), a large quantity of small fragments (1072g), and larger fragments (492g). It has a diameter of >32cm, a thickness which ranges from 2.0cm near the centre to 1.0cm towards the outer edge.

Quern 2 comprises two separate flat surfaced stones both very fragmented. One of the stones (composed of medium sized fragments 546g), probably a base, exhibits a concave upper surface showing wear patterns associated with usage, while the other stone (medium fragments 766g) resembles the more frequently recovered upper half of the quern. It is more common to find upper stones presumably because they are more susceptible to breakage while bases tend to wear down. A quantity of small fragments were also recovered with 127g associated with the base stone, and 42g with the upper quern piece.
No diameter measurement for the base of quern 2 was possible as the reconstructed fragments are not of a large enough area to cover the centre hole or outside edge. It's maximum thickness (located towards the outer edge) is 2.0cm, with it's minimum value (nearer the centre) is 1.7cm.

The top piece is very fragmented and exhibits no indications of central hole or outer edge. It has a diameter of >28cm, and has a consistent thickness of 1.9cm. The lower surface has tooling marks in the form of linear parallel striations which are orientated against the diameter of the stone. These are probably the "runnel" lines which create greater friction and facilitate the movement of flour towards the outer edge of the quern.

Quern 3 (SF4) is a well preserved piece weighing 580g (with some accompanying fragments 554g) measuring some 8.0cm x 13.0cm (Fig ??). One surface is heavily abraded and very flat with a blackened or burnt appearance. Over half of the central hole is evident which is funnel shaped with a lower diameter of 3.0cm and a value of 3.7 on the upper surface. The fragment exhibits little variability in it's thickness which only range from 2.5 to 2.2cm.

DISCUSSION

Generally querns from this period have a diameter of c.47cm (Addyman 1965) with variation in the size of the central hole. Examples analysed from Wereham have a diameter of over 32cm and an average hole diameter of c.3-4cm. Thickness is known in other assemblages to range from 6cm to 1cm (Addyman 1965), the variation being mostly due to the abrasive nature of quern utilisation, and the quern fragments from Wereham all fall within this range. This assemblage shares similarities to other collections from East Anglia in its fragmented nature, overall dimensions and appearance.

This material probably derives from Niedermendig in the Eifel, but further petrographical analysis (not possible at this time) may provide a more specific location. Gaunt states of Eifel lava "Mayen lava is a silica-undersaturated trachybasalt with abundant open vesicles. ... Outcrops of this distinctive lava, which is of quaternary age, occur in the north-eastern part of the Eifel region of Germany" (Gaunt, 1993, 1322).

Addyman, P. *Late Saxon Settlement in the St Neots Area: I.*. P.C.A.S. Vol. LVIII

Gaunt, G. *Rotary Querns* in Anglian and Other Finds from 46-54 Fishergate, York Archaeological Trust 1993

APPENDIX D

AN ASSESSMENT OF THE ANIMAL BONE FROM 13294 WER

Lorrain Higbee, MSc

A small assemblage of animal bone (817g or 50 fragments) was hand collected from excavated deposits. The assemblage is too small to justify any detailed analysis, so this brief report will concentrate on taxon present, body part representation and any pathological abnormalities.

All of the identifiable specimens belong to one of the four common domesticates (i.e. cattle, sheep/goat, pig, and horse. Horse is represented by a single tooth, and sheep/goat and pig are represented by loose teeth, mandibular fragments and foot bones only. Cattle is the only taxa whose body part distribution is representative of meal waste and not just the primary disposal of low value body parts. Long bone specimens show chop marks at the typical localities of primary carcass dismemberment (i.e. at the major joints of the limbs) as well as midshaft breaks which reduce the carcass into individual joints of meat.

Two abnormal dental conditions were noted, a maloccluded fourth premolar in a sheep/goat mandible from pit 161 and an abnormal alveolus around the fourth premolar of a pig mandible from pit 200. The only other skeletal abnormality noted was enlarged enthesis (areas of bone where muscles, ligaments and tendons are attached) on both the posterior and anterior aspects of a proximal cattle radius. These enlarged enthesis probably just relate to the animal's muscularity.

Cambridgeshire
County Council

Archaeology

The Archaeological Field Unit
Fulbourn Community Centre
Haggis Gap
Fulbourn
Cambridge CB1 5HD
Tel (01223) 881614
Fax (01223) 880946