ARCHAEOLOGICAL INVESTIGATIONS AT ROPETACKLE, SHOREHAM-BY-SEA, WEST SUSSEX.

POST-EXCAVATION ASSESSMENT AND DESIGN

Project No. 1639

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with contributions by

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April 2004

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Archaeology South-East

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1.0 INTRODUCTION

1.1 *Introduction*

1.1.1 This post-excavation assessment has been prepared broadly in accordance with the guidelines laid out in *Management of Archaeological Projects* (2nd edition, hereafter referred to as *MAP2*). This document seeks to summarise the results of archaeological work at the site and the potential for future analysis, as well as determining future requirements for publication and archiving of these results.

1.1.2 The ultimate aim of the current report is to provide a framework for carrying the report through to publication, including the cost of full post-excavation analysis, publication and archiving.

1.2 *Background*

1.2.1 The site is located at the western end of Shoreham-By-Sea High Street in part of the medieval planned town of New Shoreham, founded at the mouth of the River Adur shortly after the Norman Conquest. (Fig. 1). According to the British Geological Survey 1:50 000 map of the area (Sheet 318), the underlying geology is Head Deposits overlying Upper and Middle Chalk.

1.2.2 Outline planning permission for the construction of a mixed-use development at the site was granted by Adur District Council on 1st November 1999 (ref. SU/149/99/tap/OA). Following consultation between Adur District Council and West Sussex County Council (who advise Adur D. C. on archaeological issues) a condition (No.16) was attached to the permission requiring archaeological work at the suite prior to development. A desk-based assessment was undertaken in 2000 (Gifford & Partners 2000) followed by an archaeological evaluation (trial trenching) of the site by Archaeology South East (a division of University College London Field Archaeology Unit).

1.2.3 Three trenches were excavated to a cumulative length of 86m in October 2000. Although the site had been heavily truncated, six Medieval features (five pits and two ditches/gullies) were identified and excavated. Finds included a large assemblage of medieval pottery, animal bone, shell, tile, a fragment of chimney pot and metalwork mostly dating from the 13th to 14th century. One of the pits dated from the 11th to 12th century. A large group of clay pipes (including numerous bowls) was also recovered. (Stevens 2000)

1.2.4 A Specification was issued in July 2002 for a '*comprehensive archaeological investigation and recording exercise'* of part of the site (Hawkins 2002). Archaeology South-East was commissioned by Berkeley Homes to undertake the work in two areas immediately to the south and north of Little High Street (Fig 2, Areas 4A and 4B). This was carried out

after remediation works to remove areas of contamination relating to the former gas works on the site.

2.0 ORIGINAL AIMS AND OBJECTIVES

2.1 The main aim of the archaeological work at the site was to 'preserve' the archaeological remains in the selected areas 'by record' prior to development. However a number of *'Research Objectives'* were outlined in the Specification (Hawkins 2002)

i) Identification of former flooding/fluvial & marine erosion episodes. Is there evidence of flood silts sealing medieval features, and then being cut through by later medieval features

ii) Identification of the medieval waterfront/river frontage/shoreline

iii) What is the nature of the earliest (11th/12th-century) occupation of the site?

iv) How was the original medieval street/plot layout been affected by (a) the proximity of the River Adur (b) erosive and flooding episodes?

v) Identification of character of medieval occupation along the Old Shoreham frontage, south of Old Shoreham Road/Victoria Road junction.

vi) dating and recovery of the layout of the medieval burgage plots/property plots particularly the rear boundaries of the plots (common rear boundaries/different lengths of plots) running back from the High Street.

vii) Identification of medieval structures within the plots: their character and function.

viii) Character and evolution of medieval occupation of the western end of town.

ix) Maximising the retrieval of datable palaeoenvironmental evidence, with regard to elucidating the diet and economy of the medieval port (good palaeoenvironmental potential – on-site specialist advice with regard to sampling) e.g. concerted attempt to retrieve fish bones and fish scales from all medieval/early post-medieval deposits.

x) Recovery of well-stratified medieval and post-medieval (to end of 18th century) ceramic assemblages (imported ceramics (foreign trade links) and local ceramics (local trade links)).

xi) Recovery of well-stratified clay pipe assemblages (links with recorded Shoreham/mid-Sussex pipemakers)

xii) Concerted on-site programme of metal detector use on all early feature/deposits/spoil therefrom, and from initial excavation of spoil from site, to maximise ancient/historical artefact, coin and metallic militaria recovery.

xiii) Is there a change in the density/nature of occupation in the early post-medieval period.

xiv) Identification of 'industrial' uses on site, e.g. those associated with fish preparation and processing, clay pipe making.

2.2 Many of these objectives can be addressed by study of more than one of the categories of evidence outlined below (e.g. diet and economy), and are not therefore specifically cross-referenced to avoid repetition. Points of particular relevance are noted individually. All the objectives will be addressed; where there is insufficient evidence to provide meaningful answers this will be stated.

3.0 SITE STRATIGRAPHY

3.1 *Factual Statement*

3.1.1 Both of the evaluation trenches excavated in 2000 containing archaeological features were re-excavated during the excavation phase, hence this statement refers to the site *as a whole*, and does not differentiate between the two phases.

3.1.2 A total of 827 individual contexts were encountered at the site and each was recorded on a Context Record Form. Forty sheets of plans and sections were drawn on permatrace, providing plans of both Area 4A and Area 4B at a scale of 1:50, with 14 plans of specific areas at a scale of 1:20. A total of 179 section drawings at a scale of 1:10, and one section drawing at a scale of 1:20 were also completed.

3.1.3 Three hundred and eighty level readings were taken and listed on Level Recording Sheets. The photographic record was also listed on *pro-forma* sheets and consists of approximately 400 black and white exposures, and approximately 550 colour transparencies. These will form part of the

archive. Digital images (364) recording work in progress were also taken by Mark V. Leatherbarrow (ASE Assistant Archaeologist) as a personal project. These are currently in a *jpeg* format on CD-R. They do not form part of the specified requirements, and will not form part of the archive (unless agreed to the contrary with all relevant parties).

3.1.4 *Area 4A* (Figs. 2 and 3)

3.1.4.1 Area 4A was located to the south of Little High Street in the part of the site in which evaluation Trench **T3** was excavated in 2000. Despite some modern truncation, and problems with the chemical contamination of the west half of the area, a number of significant archaeological features survived in the stripped area. They were a number of large pits and a small scatter of post-holes and linear features provisionally dated to the 13th to 14th century. The possible remains of a medieval structure were also located in the eastern part of the area (represented by linear Cuts 171 and 277), but extensive robbing/pit digging rendered the interpretation questionable at best. There were also a number of features dated to the 17th, 18th and 19th century.

3.1.4.2 Large numbers of the features contained significant assemblages of artefacts and environmental evidence of 13th- to 14th -century date were identified. Large groups of material were recovered from deep pit/cess-pits, Cut 79 (Context 80), 134 (Context 135) and Cut 346 (Contexts 347, 348, 349 and 350) (Fig 5, S1).

3.1.4.3 Other noteworthy contemporary assemblages were recovered from features displaying more complex stratigraphy, including a substantial pit, Cut 440 (Contexts 441-452, 464-468 and 522-52 (Fig. 5, S2). A 2.7m deep well (Cut 95) also produced significant artefactual and environmental evidence (Contexts 96 and 318) (Fig. 5, S3)

3.1.4.4 Shallower pits such as Cut 147 (Context 148) (Fig. 5, S4), Cut 216 (Contexts 217 and 230) and Cut 322 (Context 323) also produced large groups of various artefacts of a similar date. Two medieval hearths, Cut 235 (Fig 5, S5) and Cut 243 were also identified, both of which truncated 13th-14th century pits. Strong environmental evidence was obtained from a sample from Cut 205 (Context 206). Pottery dated to 13th to 14th century was recovered from Cut 243 (from Contexts 244 and 295), and although no direct dating evidence was recovered from Cut 205, it was presumed to be broadly contemporary.

3.1.4.5 However, the most productive medieval feature in Area 4A was another deep well (Cut 87). Significant assemblages of material were recovered from the partially waterlogged feature, including an almost complete ceramic *aquamanile* and a wide variety of other artefacts, as well as strong environmental evidence from Contexts 88, 107 and 108 (Fig. 6, S6).

3.1.4.6 There were no particularly large assemblages of 15th, 16th or 17th century material, although one large pit (Cut 328) did contain a reasonable group of 17th to 18th century pottery in the upper fills (Contexts 166, 167 and 168) and 16th to 17th century pottery in the lower fill (Context 229). The feature appeared to be a re-cut of another pit (Cut 165) which contained probable late C15th to C16th pottery (Context 240) (Fig. 6, S7)

3.1.4.7 The only significant assemblage of 18th century material was from a pit, Cut 123, (Contexts 124 and 125), but extremely large groups of 19th century material were recovered from two brick-built ?privies, Structures 82 and 238 (Contexts 84 and 239). Smaller, but important assemblages were recovered from the upper fills of well, Cut 385 (Contexts 386 and 396) and a pit, Cut 145 (Context 146) (Fig. 5, S4).

3.1.5 *Area 4B* (Figs. 2 and 4)

3.1.5.1 Area 4B was located to the north of Little High Street in the part of the site in which Trenches **T1** and **T2** were excavated during the evaluation phase. There was some modern truncation, but no obvious chemical contamination, and a number of features including large pits, post-holes, gullies and ditches were encountered. The date range of the features was much wider than in Area 4A, with prehistoric, Roman-British, Saxo-Norman, medieval and post-medieval material.

3.1.5.2 The potentially oldest feature found at the site was a post-hole, Cut 759, containing a small fragment of pottery provisionally identified as dating from the Late Bronze Age/Early Iron Age (Context 761). A background scatter of residual struck flint and fire-cracked flint was present in a number of later features.

3.1.5.3 Area 4B also contained a group of Late Iron Age /Early Romano-British pits and post-holes, (e.g. Cut 538, Context 539) although none produced large assemblages of material. First century AD pottery was also recovered from a shallow east-west ditch, Cut 549, (Contexts 550, 552, 553).

3.1.5.4 A single Saxo-Norman pit (Cut 44, Context 45) was encountered (Fig. 6, S8). Pottery of the 12th to 13th century date was also recovered from a number of features, but much appears to be residual, or perhaps dated to the end of this timeframe, such as the cesspit, Cut 536. As in Area 4A, the vast majority of features dated from the 13th to 14th century, including a cess-pit (Cuts 402) from which parasite eggs were recovered from Contexts 490 and 491.

3.1.5.5 The largest assemblage of 13th and 14th century pottery from the site was recovered from a deep pit Cut 32, (Contexts 33, 47, 48, 49, 50 and 678). Other particularly productive pits of this period included Cut 534 (Contexts

535, 615, 616, 617 and 564), Cut 540 (Context 541) and 732 (733-737, 740 and 741).

3.1.5.6 However, the most complex stratigraphic sequence was seen in a contemporary well, Cut 601 (Fig. 6, S9). In addition, more than 3kg of preserved timber were recovered from the lower fill, Context 770.

3.1.5.7 Post-medieval material was present in a small number of features, most of which appeared to be the buried remains of privies. A large assemblage of 18th century material came from one such stone-built structure, Cut 566 (Contexts 567-570). The nineteenth century examples were Structure 597 (598), Structure 643 (Context 644), Structure 648, (Context 647), Structure 650 (649) and Structure 738 (Context 739)

3.1.5.8 However, the most striking post-medieval feature was the remains of a ?18th century timber structure at the western edge of the excavated area, provisionally interpreted as a saw-pit (Cut 652). Timber preservation in a number of contexts within the feature was particularly good.

3.2 ***Statement of Potential***

3.2.1 Area 4A (Fig 3)

3.2.1.1 There were a large number of clear stratigraphic relationships in the area from the many large pits, and to a lesser extent, from the small number of linear features. Relationships between post-medieval and medieval features were relatively common, and interfaces between broadly contemporary deposits were also widespread. This suggests that it may be possible to suggest spatial distribution of features at different times.

3.2.1.2 Hence the results offer the potential for study of the nature of utilisation of the pits through time, as well as limited potential for the examination of medieval and post-medieval land division in this part of the site (e.g. Research Objective (vi) – 2.1 above).

3.2.1.3 There is also the potential for confirming and/or refining pottery dating by studying securely stratified assemblages (see also Research Objective (x) and 4.2 below).

3.2.2 Area 4B (Fig. 4)

3.2.2.1 There were noticeably fewer stratigraphic relationships in Area 4B, although there were a number of Romano-British/medieval/post-medieval interfaces. However, the clear stratigraphic sequence of the east to west and north to south ditches and gullies appears to have significance and requires further study.

3.2.2.2 The results offer similar potential to Area 4A, although the fewer stratigraphic relationships suggest that this area will complement Area 4A rather than provide extensive evidence in its own right. The potential for appreciation of the sequence and nature of land division and occupation in the prehistoric and Romano-British periods is limited, because there is insufficient evidence to indicate much more than presence of activity in these periods.

4.0 THE POTTERY by Luke Barber

4.1 *Factual Statement*

4.1.1 The evaluation and subsequent excavation at the site produced a little over 18,500 sherds of pottery, weighing a little under 350kg, from 344 individually numbered contexts (nearly 50 boxes). The breakdown of the assemblage by fieldwork phase is given below in Table 1. Sizes of the groups in each context, together with provisional spot dating, is given in the finds quantification tables appended at the end of this report.

	Number of sherds	Weight of sherds (grams)	No. of contexts/enviro. Samples
Evaluation (hand)	1,422	15,575g	20
Evaluation (enviro. Sample)	103	386g	5
Excavation (hand)	14,440	326,050g	324
Excavation (enviro. Sample)	2,548	6,380g	95
Grand Totals	**18,513**	**348,391g**	

Table 1: Breakdown of pottery assemblage by fieldwork phase.

4.1.2 The assemblage is in variable condition. The majority of the material is in good condition and is generally characterised by medium to large sized sherds. Most of these do not show extensive evidence of abrasion suggesting they have not been subjected to reworking after their initial deposition. Indeed several complete/near complete medieval and post-medieval vessels are present in the assemblage. Pottery from a few other contexts is more variable in condition, mainly being represented by small sherds (to 30/40mm across) though very few are heavily abraded.

4.1.3 Residuality and intrusiveness in most assemblages appears to be either non existent or low. However, the degree to which there is residual 13th- century material in 14th- century contexts cannot at present be addressed with certainty. Some contexts are notably mixed to such an extent that it is uncertain on the ceramics alone what is residual and what is intrusive.

4.1.4 The pottery is of several periods but is dominated by later medieval products. The earliest material present consists of a single small sherd of flint tempered Late Bronze Age or Iron Age pottery from Context 761. The next phase represented is the Late Iron Age to Early Roman period. There are several contexts of this date though none produced large ceramic groups

(e.g. 539, 550, 552, 553, 555, 563). Grog, sand and grog and chalk tempered sherds are represented along with a few pieces of briquetage. Both Late Iron Age types (e.g. eye-brow decoration) and early Roman types (e.g. Upchurch ware) are represented though few rims were recovered. Some of the material is very similar to early Roman material from Romney Marsh salt-working sites.

4.1.5 The earliest medieval pottery consists of a small assemblage, from one of several small groups, of 11th- to 12th- century material. The only uncontaminated group of this date is from Context 45. These sherds are in lower fired flint and chalk tempered fabrics. Most of the material in this period probably dates to the later 12th century and that from the main excavations is usually either residual in later contexts or represents older vessels still in use at the end of the 12th to beginning of the 13th centuries. Unfortunately no uncontaminated groups of a useful size are present for this period.

4.1.6 The vast majority of the medieval pottery is of 13th- to 14th- century date. The assemblage is dominated by well-fired medium (to coarse) sand tempered wares. Some of these have flint and shell inclusions but never in large proportions. Cooking pots, skillets, bowls and jugs are all represented. The latter are frequently glazed and include local products as well as material from Rye, Surrey/Kent and Scarborough. The most notable of these is the Scarborough aquamanile from Context 108 and a face-jug sherd from Context 11. As such the assemblage includes both 'prestigious' as well as everyday jugs. Although the vast majority of the assemblage is of local production some imports are present. These appear to be French products and are present in a number of contexts though never in large quantities. Of note are two almost complete Saintonge jugs from Context 521.

4.1.7 The 13th- to 14th- century material is represented by many small to medium sized groups as well as some very large closed assemblages. Many of the large groups do not appear to contain significant residual/intrusive material. Having said this, many of the groups tend to be somewhat repetitive of fabrics and forms, presumably due to their close chronological range. The largest group of this period is from Context 541 which contains 1,028 sherds though most of these are small and few rims are present. Better groups are present from Contexts 33 (evaluation: 838 sherds) and 108 (excavation: 846 sherds, including the aquamanile). Smaller, but nonetheless important groups are present from Contexts 80, 88, 678 and 736. Most of these groups contain numerous rimsherds for illustration.

4.1.8 The 15th, 16th and most of the 17th centuries are very poorly represented in the pottery assemblage suggesting little rubbish disposal was occurring at this time. These periods are represented by a scatter of sherds, usually residual/intrusive in other contexts. Only a few very small groups are present, such as a probably 16th- century group from 431 (26 sherds weighing 405g). Fabrics include local earthenwares, Borderwares, Dutch

redware (x1 sherd noted during assessment) and German stonewares, though the lack of Bellarmine fragments is both notable and surprising considering how common this material usually is on urban sites (indeed a large proportion of the 17th- century assemblage from the recent excavations nearby at Marlipins Museum consisted of Bellarmines).

4.1.9 Although some material dating from the later 17th century is present most appears to be in 18th- century contexts. Although the 18th- century groups are not common at least four reasonable ones are present: Contexts 124 (144/5,575g), 570 (374/10,073g), 684 (58/1,828g) and 739 (3,620g). The material includes local earthenwares, slipwares German stonewares (Colonge/Frechen and Westerwald), London stoneware, tin-glazed earthenware, white salt-glazed stoneware, creamware and pearlware. Most of the groups are complemented by clay pipes.

4.1.10 The 19th- century assemblage from the site is very large (over 16 boxes), the majority coming from several very large closed groups. Most of the large assemblages are complemented by clay pipes (and glasswork) to help refine their date although most unfortunately have only small quantities of local earthenwares. Assemblages from both the early middle and later part of the century seem to be present. Sherd sizes vary from small to very large: there are several virtually complete chamber pots and jugs. A wide range of wares are represented including local earthenwares, stoneware, creamware, pearlware, transfer-printed ware, lusterware, late slipware, industrial slipware and yellow-ware (often with mocha decoration). The largest groups include Contexts 239 (679/21.2kg), 644 (742/25.7kg) and 647 (675/29kg).

4.2 *Statement of Potential*

4.2.1 The pottery from the current site is considered to hold significant potential for further study, particularly for the later medieval and later post-medieval periods. Further study of the overall assemblage will allow the creation of a fabric series for the town. Although the current assemblage has some notable gaps in the sequence (i.e. the early post-medieval period, though this is of interest in its own right) these can be filled to a certain extent by including material from the excavations at John Street (Barber forthcoming a) and more notably, at Marlipins Museum (Barber forthcoming b), the latter producing a good late 16th- to 17th- century sequence. The current assemblage is strongest for the 13th to 14th centuries and 18th to 19th centuries (periods poorly represented by the ceramics at Marlipins).

4.2.2 Study of selected 13th- to 14th- century groups from the site, in combination with the site stratigraphy, will hopefully allow a refinement of dating. It is hoped this may go some way toward sub-dividing the 13th- to 14th- century material into smaller chronological brackets. This will hopefully allow a more accurate identification of residual sherds within individual contexts and thus the nature of deposition as well as identifying any shifts in pottery supply during the high point of the town (trade links - Research Objective

(x); 2.1 above). Further work on form/fabric types for the larger contexts should help assess the activities carried out at the site. The relative low quantities of imported pottery, particularly when compared to deposits of the same date at Winchelsea, is interesting but may reflect the site's location (i.e. in a 'working' area of the town rather than the area of 'high status' domestic living, which is where most of the Winchelsea assemblages have come from).

4.2.3 The later post-medieval pottery has potential to shed light on the range of ceramics available to 18th- and 19th- century Shoreham and, together with the clay pipes, offers the opportunity to publish some closely dated sealed groups of this date for the first time in Shoreham, and indeed Sussex as a whole.

5.0 THE CLAY PIPE by Luke Barber

5.1 *Factual Statement*

5.1.1 The evaluation and subsequent excavations at the site produced a large assemblage of clay pipe fragments: 1.5 boxes, equating to just under 10kg from 68 individually numbered contexts. Although some of this material is unstratified, residual or intrusive most pieces are from sealed contexts dating to the 18th and 19th centuries. The material is generally in good condition, though some pieces have iron corrosion adhering. Although the majority of pieces are from plain stems (a few have decorated/stamped stems) a good proportion of complete or fragmentary plain and decorated bowls are present. A fair proportion of the bowls contain maker's initials/stamps.

5.1.2 The clay pipes from the site can be divided into three periods:

17th century - *Generally there are very few 17th- century pipes and those that are present are of the second half of the century. Most are residual in later contexts though a couple of small 17th- century contexts contain a few fragments (e.g. Context 384 has a few bowls). All pipes appear to be plain.*

18th century - *The assemblage contains a larger group of pipes of this date, both in 18th- century contexts as well as residual/intrusive in later/earlier contexts. The material consists of stems and bowls. A number of armorial pipes are present and a number have make's initials (including at least one stamped stem). Three groups are from contexts with good pottery assemblages: Contexts 124, 684 and 739.*

19th century - *The majority of the assemblage is of this date and several large groups are present. Both plain and decorated stems and bowls are represented with a number having maker's marks*

(e.g. GOLDSMITH, BRIGHTON: 1826-46 from Context 649). One of the largest groups is from Context 239, which includes two figurehead pipes (one of which is glazed) and further pipes with maker's initials/stamps. Another figurehead pipe, of probable French make, is present in Context 647. Most of the good groups of pipes are from contexts with good assemblages of pottery.

5.2 *Statement of Potential*

5.2.1 The clay pipes from the site are considered to hold potential for analysis as they will greatly help refine the dating of the ceramic groups (and contexts in general). In addition the pipes allow the full 'social' contexts of the pottery groups to be seen, at least for the 19th century. The study of the makers is also of interest in its own right as they have the potential to test and expand upon the existing inventory of Sussex pipemakers.

6.0 **THE CERAMIC BUILDING MATERIAL** by Luke Barber

6.1 *Factual Statement*

6.1.1 The excavations at the site have produced a relatively large assemblage of tile (see finds tables) weighing a little under 200kg from approximately 154 individually numbered contexts. The material is of medieval, early post-medieval and late post-medieval date. Although the 13th to 14th century produced more contexts containing CBM than any other period (totalling 80) the largest proportion, at least by weight, comes from the late post-medieval period (42 contexts). A scatter of late medieval (15th to early 16th century) and early post-medieval (mid 16th to 17th century) material is also present (five and 14 contexts respectively). None of the Romano-British contexts contained CBM.

6.1.2 The CBM from the site, in both medieval and post-medieval contexts, is from roofing tile, principally peg tiles, though pantile pieces were also noted in some of the 18th- to 19th- century. The presence of ridge tiles, bonnet tiles and a few floor tiles was also noted. No complete tiles are present and in general pieces tend to be quite small, particularly for the medieval period, suggesting the material has been reworked/redeposited on the site. Although no close inspection was made of the tile fabrics at this stage a number appear to be present, including some medieval examples with flint tempering. The majority are in sand tempered or later, untempered, fabrics.

6.1.3 Although brick fragments numerically compose the smaller part of the CBM assemblage they appear to be present in both later medieval, early post-medieval and late post-medieval contexts. They are always far more common in the post-medieval period.

6.1.4 The majority of the contexts produced only small groups of CBM. This was particularly notable with the medieval contexts. However, some larger groups were present for this period including Contexts 442 (*c.*16kg), 541 (*c.*12kg) and 107 (4.2kg). The largest groups noted for the early post-medieval period consist of two 17th- century groups (120 and 384). The late post-medieval period is well represented by larger groups of both 18th- (Contexts 125, *c.*4kg; 176, *c.*7kg and 654, *c.*11kg) and 19th- (Contexts 84, *c.*12kg and 315, *c.*5.5kg) century date.

6.2 *Statement of Potential*

6.2.1 The CBM assemblage from the site is considered to hold only limited potential for further detailed analysis. This is due predominantly to the relatively small size of the medieval assemblage, lack of larger pieces and the danger of undiagnostic medieval residual pieces being present in early post-medieval contexts. Despite this, the site has produced a wide chronological range of CBM and as a result some limited further work should shed light on the key transitions of fabrics and CBM forms through time in Shoreham. Study of some groups from contexts with no pottery dating (approximately 13 in number) should also help to broadly date those contexts.

7.0 **THE BURNT CLAY** by Luke Barber

7.1 *Factual Statement*

7.1.1 The excavations produced quite a large assemblage of burnt clay: a little over 41kg from 87 different contexts. However, during the assessment it was noted some of the current material classified as burnt clay may well turn out to be fragmentary late medieval or early post-medieval low-fired bricks (the distinction can be very difficult). The assemblage comes from a wide chronological spread: 5 undated; 10 Late Iron Age/Roman; 55 13th- to 14th-; 11 15th- to 17th and 6 18th- to 19th- century contexts.

7.1.2 It is interesting to note the LIA/RB contexts contain a good proportion of the assemblage while the late post-medieval contexts contained very little fired clay. The degree of residual fired clay in post-medieval contexts is hard to gauge though it is suspected it is high. The assemblage is totally dominated by amorphous lumps with very few shaped pieces being noted during the assessment. Those that were present were usually simply flattened to create a flat surface and probably originated from oven linings or burnt daub. Very few wattle marks were noted during the assessment.

7.2 *Statement of Potential*

7.2.1 The burnt clay assemblage is considered to hold only minimal potential for further study. However, the material ought to be inspected more closely as it is recorded to identify any fragments which may show signs of deliberate shaping. These will have the potential to shed light on site activities, such as weaving (loom-weights) and salt production (briquetage) for both the LIA/RB and medieval periods.

8.0 THE METALWORK by Luke Barber

8.1 *Factual Statement*

8.1.1 The evaluation and subsequent excavation at the site produced a relatively large assemblage of metalwork. Copper alloy, lead and iron are all represented though the latter totally dominates the assemblage. A little over 58kg of ironwork was recovered from nearly 180 individually numbered contexts. The material is predominantly of the 13th to 14th and 18th to 19th centuries though small assemblages of early post-medieval ironwork are also present. The iron on the whole is in poor to fair condition and is usually characterised by heavily encrusted corrosion products, often incorporating other items such as stones, shells etc. Despite this the majority of the assemblage is still diagnostic of object type without x-ray. However, some pieces are in need of x-raying in order to identify their form and/or gain more detail from a known object type.

8.1.2 By far the majority of the ironwork assemblage consists of nails. These are very variable in size for all the chronological periods represented, though this is particularly notable for the 13th- to 14th- century contexts. Due to the heavy corrosion products it is only possible to classify the nails into size categories rather than detailed type. However, it is notable that there is quite a high proportion of large nails which would have been used in structural work. In addition to the nails there is a relatively small quantity of clench bolts for securing timbers. These are from medieval contexts usually (Contexts 452 and 611), but are also found in later deposits (Context 558, dated 16th to 17th century but containing residual medieval material).

8.1.3 A number of household fittings are present including, hinge pivots, U-staples and various brackets. These are from both medieval and post-medieval contexts. Other objects are very few in number but include several knives (e.g. from context 229, dated mid 16th to 17th century, and 553/554, dated 18th century), a barrel hoop (Context 146, dated 19th century) and two large fish hooks (Contexts 108 and 651, both dated 13th to 14th century). The majority of the larger context groups are of late 18th- to 19th- century date.

8.1.4 The non-ferrous assemblage from the site is considerably smaller (see Finds Table) and was recovered from 46 different contexts. A little lead is present and although in good condition, it is never present in large quantities. The more interesting items include a line weight for fishing (Context 315, dated

19th century) and two unrolled net weights from 13th- to 14th- century contexts (447 and 467). The copper alloy from the site is in poor condition with powdering of the objects' surfaces and total 'mineralisation' of some items. A few pieces have surface detail obscured by corrosion though many of the original surfaces appear to have corroded away.

8.1.5 The non-ferrous assemblage comes from a wide chronological range: undated (5 contexts), 13th to 14th century (18 contexts), 15th to 17th (6 contexts) and 18th to 19th century (17 contexts). The medieval material is of far more interest than the later assemblage though itself is somewhat limited in diversity. A number of buckles are present (Contexts 108, 135, 468, 541, 678, 737 and 802). Other items consist of a few leather decorations (Context 148) and a ring brooch (Context 354). The later assemblage contains a range of lace ends, spoon fragments and scrap items. No large groups of non-ferrous items are present.

8.2 *Statement of Potential*

8.2.1 The metalwork from the site is considered to have only limited potential for further detailed analysis. The ironwork lacks diversity and a large proportion of the assemblage is from late post-medieval contexts. However, some aspects, such as the high proportion of large nails and the presence of at least some fish hooks, are of interest and may help shed light on activities carried out on the site in the past. The non-ferrous assemblage has slightly more potential for further analysis in that some of the medieval buckles may help confirm the ceramic dating and the material such as the net weights offer tangible evidence on the presence and techniques of medieval fishermen.

9.0 **THE COINS** by Luke Barber

9.1 *Factual Statement*

9.1.1 The excavations recovered only three coins despite the use of a metal detector. All are copper alloy examples from late post-medieval contexts. Two are illegible (if indeed they are coins), but appear to be a halfpenny and penny of the 19th century (Contexts 644 and 598 respectively). The other coin is in good condition: a penny of George III (dated 1806/7) from Context 146.

9.2 *Statement of Potential*

9.2.1 The coins from the site are not considered to hold any potential for further detailed study though that from Context 146 is interesting as it ties in well with the large group of ceramics from this context.

10.0 THE GLASS by Luke Barber

10.1 *Factual Statement*

10.1.1 The excavations produced a large assemblage of glass from the site: 6 boxes, weighing just over 44.5kg from 57 individually numbered contexts. The material is generally in good condition though a number of pieces, particularly of the later 17th and 18th centuries, show signs of surface flaking. The glass is of a number of different periods which are summarised below.

10.1.2 Early glass at the site is rare. A single fragment of Roman bottle was recovered as well as a couple of very small featureless pieces from medieval contexts. The latter may well be intrusive early post-medieval material rather than actually being medieval in date. Similarly there is very little material present of the 16th to 17th centuries. This material consists of a few wine bottle fragments, a beaker fragment from 168 and a wine glass base from 167.

10.1.3 There is notably more glass from 18th- century contexts. Wine bottles, other small bottles, wine glasses and window glass are all well represented. Wine bottles dominate the 18th- century assemblage. A few good groups are present, many of which also contain pottery. For example Context 124 (1.45kg) includes wine bottles, window glass and other small bottles (including a painted example).

10.1.4 The majority of the assemblage is from the 19th century and is mainly composed of cylindrical wine bottles, medicine bottles and beer/soda bottles (including embossed examples). Several large groups are present: 239 (4.93kg), 583 (1.62kg), 644 (5.98kg) and 649 (6.45kg). The latter group is interesting as it is composed entirely of wine bottles and glasses.

10.2 *Statement of Potential*

10.2.1 The glass from the site is considered to hold low to moderate potential for further study. The early assemblage (up to the 17th century) is small and dispersed with no large groups or individual pieces of importance and as such is not considered to hold any potential for further study. The 18th-century material is of more interest in that some may help with context dating and the material helps complement the ceramics and clay pipes in giving a fuller insight into the source of the rubbish disposed of on the site. The 19th- century glass is considered to hold moderate potential for the same reasons as the 18th- century glass although with the presence of embossed bottles, albeit it only moderate quantities, the refinement of dating may be easier.

11.0 THE WORKED FLINT by Luke Barber

11.1 ***Factual Statement***

11.1.1 The excavations produced a small assemblage of worked flint (see Appendix 3: equating to half a box). The material consists virtually entirely of hard hammer waste flakes and shattered pieces. Many of these appear to relate to flint knapping for wall construction rather than being of prehistoric origin. Such examples are present in Contexts 155, 120, 217 and 392. However, there is obviously a prehistoric element to the assemblage, though this material is virtually always residual in medieval contexts. Of this material most is unretouched waste though some blade fragments (eg Context 621) are present. Only the flint from Context 761 may be contemporary with the deposit from which it was recovered, though this assemblage (weighing 25g) is too small to be significant.

11.2 ***Statement of Potential***

11.2.1 Virtually all the prehistoric material is residual in later contexts and there is always some confusion distinguishing between the smaller debitage from medieval knapping from wall construction and earlier activity. Very few diagnostic pieces are present and all individual context assemblages are small. The worked flint from the site is considered to hold only limited potential for further analysis. It will indicate presence of activity in the area, but little else.

12.0 THE FIRE-CRACKED FLINT by Luke Barber

12.1 ***Factual Statement***

12.1.1 The excavations uncovered a relatively large collection of fire-cracked flint (see Finds Table). The material is likely to derive from both prehistoric, Roman and medieval activity though the processes which burnt the flint are unknown.

12.2 ***Statement of Potential***

12.2.1 The fire-cracked flint from the site is not considered to hold any potential for further analysis.

13.0 THE GEOLOGICAL MATERIAL by Luke Barber

13.1 ***Factual Statement***

13.1.1 The excavations produced a large assemblage of stone: a little under 2,000 pieces, weighing just over 668kg from 206 different contexts. A further 68 pieces (weighing just over 10kg) was recovered from the evaluation. The material was recovered from both hand collection and environmental

residues. A wide variety of stone types/variants are present, both local and imported. Size ranges of individual pieces varies from as little as 2g to as much as 30kg.

13.1.2 The overall assemblage is mainly from 13th- to 14th- century contexts though some early and late post-medieval assemblages are present (often including residual medieval material) and a few pieces are from Late Iron Age/Roman contexts. The overall assemblage can be divided into three categories: building materials, objects and other, though the division between the first and third categories is often not clear as many unshaped pieces could be equally employed as ballast, walling, or both.

13.1.3 Building material on site relates to either roofing or walling. The assemblage includes a fair spread of West Country roofing slate from medieval and later contexts though never in large amounts and usually as small pieces. In addition a number of bits of Welsh slate were recovered from 19th- century contexts, some of which have complete dimensions. Surprisingly few pieces of Horsham stone were recovered and most of those that were are not definitely from roofing slates. Only in late medieval and early post-medieval contexts are there a few definite Horsham slate fragments. Many more Horsham stone slates were encountered at Marlipins, again mainly in late 14th- to 15th- century contexts.

13.1.4 A number of ashlar block and architectural fragments are present, though most appear to have been re-used in later, often 19th- century, construction. This is most notable in Context 648 where a number of large pieces of masonry consisted of masses of mortared Horsham stone, Caen stone and brick. The most common roughly shaped stone is Caen, but Purbeck limestones, Oolitic limestones, Lower Greensand and other 'Wealden' sandstones are present. It is interesting to note that not all of the Caen stone is shaped/dressed suggesting some may have been brought as rough blocks to be dressed on site. The architectural fragments are usually simple jamb mouldings and as such are not diagnostic of a close date. However, where more diagnostic pieces are present, for example a fragment of window tracery from 648, they appear to be of late medieval/early post-medieval date (D. Martin *pers. Comm.*).

13.1.5 A number of different objects are represented in the assemblage. Perhaps the most common are quern fragments. Only two stone types were noted for querns; Lower Greensand and German lava though the latter are never present as large pieces. The Lower Greensand quern fragments are frequently larger, though often burnt. One burnt fragmented complete upper stone from a 'squarish' rotary quern was recovered from Context 476 (weighing 4,275g). All the quern fragments from the site appear to relate to the 13th to 14th centuries. The assemblage also includes a number of fragments of stone mortar. These are mainly in Caen stone though at least one Purbeck Marble example is represented.

13.1.6 Whetstones are not common in the assemblage though medieval examples include fragments of at least four examples in Norwegian Ragstone/schist and one in Wealden sandstone. A number of 19th- century round/oval or square sectioned sandstone whetstones were also recovered. Other objects include fragments of two small anchors, one circular, the other more elongated and several spindle whorls.

13.1.7 The remaining part of the stone assemblage consists of irregular pieces or rounded/semi-rounded cobbles and boulders. Some of these could be from ship's ballast some of which may have been later re-used for building. Other material may have been brought deliberately in for building from the outset. Although it is uncertain which are which, a number of large boulders of granite are almost certainly ballast and suggest a trade with the south-west. Other material from the west includes the West Country slate, Purbeck limestones and shale. Continental trade is demonstrated by the Caen and German lava though other stone types may also be present.

13.2 *Statement of Potential*

13.2.1 The stone assemblage is considered to hold some potential for further analysis in that it is large and diverse enough to shed light on the choice of material for different tasks and the exploitation of local and regional resources. The stone is also considered to have some potential to help understand the trading contacts of the port.

14.0 THE MISCELLANEOUS ARTEFACTS by Luke Barber

14.1 *Factual Statement*

14.1.1 A small quantity of mortar and plaster was noted in amongst the ceramic building material during the assessment. This came from both medieval and post-medieval deposits. Although no large pieces are present a number show smoothed faces.

14.1.2 A small assemblage of worked bone is present from the site. Virtually all of this material is of 18th and, more commonly, 19th- century date. Items include numerous perforated buttons (e.g. Contexts 239, 598, 605 and 644), an antler tool handle (124), knife handles (386, 583 and 644), a condiment spoon (386) and at least two lice combs (239 and 684). However, at least two medieval pieces are present (Contexts 96 and 108). These consist of crude needles made from pierced rib bones, possibly for use with fishing net repairs. A further example from an undated context is also probably medieval (Context 518).

14.1.3 A small quantity of leather was recovered from the site. Virtually all of this material relates to late 18th- ,or more commonly 19th-century material from

shoes and boots which have not yet rotted completely. No waterlogged material is present and the few bits of earlier material, including fibres from Context 448, may be intrusive. Other items include a 19th- century pipe-clay figurine (Context 239), 19th- century ceramic marbles and various bits of plastic.

14.2 *Statement of Potential*

14.2.1 The miscellaneous items are not considered to hold any potential for detailed further analysis. The mortar/plaster should be scanned as it is recorded for archive to identify any pieces of moulded plaster but the mortar is not considered to be worth any study. The worked bone from the site is virtually exclusively of the 19th century and with the exception of helping date certain features and perhaps help assessing the 'social' source of some of the ceramics groups, this material has no potential for study.

14.2.2 The medieval worked bone is considered to have more potential in that it sheds light on the site's activities and the economy. The leather from the site, being all of late post-medieval date, is not considered to hold any potential for further study other than similar questions asked of the late worked bone. The fibrous material from Context 448 will need to be studied to establish its probable origin and date.

15.0 **THE LARGER ANIMAL BONE** by Lucy Sibun

15.1 *Factual Statement*

15.1.1 The bone assemblage recovered during the excavations weighs in excess of 50kg. This material was collected from approximately 270 separate contexts, 254 of which have been dated to the Late Iron Age/Romano-British period and the 12th through to the 19th centuries. The majority of the assemblage has been recovered from pits and wells. The preservation of bone was good with large fragments of bone in many contexts. From this preliminary assessment very little surface weathering or gnawing were noted on bone fragments.

15.1.2 The good state of preservation has enabled the main species present to be identified at this stage. The presence of obvious butchery and pathology on the bones has also been noted. The main species identified during the preliminary assessment are cattle, sheep and pig. Horse, cat and dog were also present but in small quantities. All parts of the skeleton were represented, the main meat producing elements as well as those parts which would normally have been discarded early on in the butchery process.

15.1.3 Evidence for butchery was present in many contexts but most apparent on those contexts dating to 18th and 19th centuries in which bone fragments were generally larger. There was very little evidence for pathology on the

bones. A limited amount of aging data is available from dental development/eruption and wear but this can be augmented by the use of data from epiphyseal fusion. It will be possible to take some measurements on the bones but despite the quantity of large bone fragments present the number of complete bones is small and withers height estimates will only be possible in a few instances.

15.1.4 For the purposes of this assessment the assemblage has been separated into several chronological categories. Wherever possible contexts have been placed into definite periods of occupation, the categories used are as follows;

- Late Iron Age/Early Romano-British
- 12th to early 13th century
- 13th - 14th century
- 15th to early 16th century
- Mid 16th to 18th century
- 19th century

15.1.5 Eleven Late Iron Age/Romano-British contexts produced bone and these consisted of gully, pit and post-hole fills. The only possibly 12th to early 13th century contexts containing bone (eight in total) were pits. Cattle, sheep and pig were noted in both assemblages with the addition of horse in the Late Iron Age/Romano-British period. No large contexts were present and nothing of particular note was identified.

15.1.6 The bone produced in the 168 contexts dating to the 13th -14th century phase of occupation formed the majority of the assemblage. Bone producing contexts included wells, cess pits, rubbish pits and, post-holes. The largest contexts from this phase were from a well (context 108) and pits (contexts 33, 350, 541, and 736). The main species identified were cattle, sheep and pig but horse and dog were also noted. Evidence for aging is available for the main domesticated species and some measurements will be possible. There is evidence for butchery although this appeared to be limited.

15.1.7 Five contexts date to the 15th - 16th centuries. These include fills of pits and a well. The largest context was pit 225 which contained large bone fragments providing both aging and butchery data. Cattle, sheep and pig were identified within this phase.

15.1.8 The 16th -18th century phase of occupation contains bone from 44 contexts, the majority of which are fills in pits and wells but also include leveling deposits and structural contexts. There are several large contexts within this group but pit fill 658 is the largest. The bone fragments from this phase are generally larger and butchery evidence is more apparent than in earlier phases. The species identified were cattle, sheep, pig and horse and dog.

15.1.9 The eighteen contexts from the 19th century include cess pits, pits, post-holes and wells. Context 644, the fill of a cess pit produced the largest quantity of bone in this phase. As with the 16th to 18th century phase of occupation, bone fragments are generally larger and cattle, sheep, pig, horse and cat/dog were identified.

15.2 *Statement of Potential*

15.2.1 Animal bone provides a valuable indicator of economic activity. Bone refuse reflects the animals kept, those hunted and those slaughtered for food. A study of bone from the site will therefore provide information of the site's economy as well as its' methods of animal husbandry.

15.2.2 It is hoped that the reasonable state of preservation should enable a high percentage of the material to be identified to bone type and species, providing detailed information regarding the range of species present in the assemblage and their relative importance to the community. It is also considered that butchery marks or pathological changes to the surface of the bone will be identifiable if present.

15.2.3 The main aim of the work will be to identify the species present as well as the relative proportions constituted by each. All phases will be studied for an overview of the site's economy but with the exception of the 13th-14th centuries, the bone assemblages from most phases are not thought large enough to enable meaningful statistical analysis. The 13th and 14th century material will therefore be studied in more detail. Changes in the percentages of each age or sex group represented will be looked for, perhaps reflecting changes in economic activity. An examination of butchery patterns and changes thereto can enhance this information.

16.0 THE FISH, SMALL MAMMAL, BIRD AND AMPHIBIAN BONE

by Deborah Jaques

16.1 *Factual Statement*

16.1.1 The sampling programme employed at this site has resulted in the recovery of a moderate-sized assemblage of fish remains. Some fish bones were retrieved by hand during excavation, but these were mainly restricted to larger vertebrae or other larger skeletal elements. Articulated remains were identified in two of the deposits (Contexts 386 and 444). Most of the bird bones were identified from the hand-collected assemblage, although the remains of some smaller birds were recovered from the samples.

16.1.2 In total, material from 89 samples was examined, representing 82 of the excavated deposits. The largest concentrations of bone were recovered from 13th/14th century pit and well fills, with Contexts 88 and 108 being especially rich in well-preserved fish bones. Although earlier (late Iron Age/early Romano-British) and later (later medieval and post-medieval) deposits were sampled very few fish remains were recovered.

16.1.3 Generally, the fish remains showed reasonable preservation throughout. Most assemblages were scored as good or fair, although some fragments were a little battered in appearance, and some showed damaged edges. Very little material was of variable or poor preservation, although fragments from some of the deposits described as cess pit fills appeared quite fragile and more fragmented.

16.1.4 Many of the identifiable fragments were vertebrae, but other skeletal elements were represented, particularly in the larger assemblages. Unidentified fin rays, spines and ribs contributed a proportion of the assemblages, and, in some contexts, taphonomic factors may have affected the survival of less robust elements, but a more detailed analysis of the representation of different elements would need to be undertaken to provide a clearer picture.

16.1.5 Four deposits were dated to the late Iron Age/early Romano-British, Contexts 539, 553, 563 and 706. With the exception of Context 539, none of these produced any identified fish remains. Those from Context 539 were identified as small gadid.

16.1.6 Early medieval material of 12th/13th century date was recovered from four deposits (Contexts 611, 621, 626 and 631), all of which were pit fills. Identified remains were not numerous but included conger eel (*Conger conger* (L.)), gurnard (Triglidae), small and large gadid and flatfish (Heterosomata). It should be noted that the dating of these fills was based on small assemblages and that it is more than likely that this material could be assigned a 13th century date. (see Section **4.1.5** above)

16.1.7 Of the 89 samples examined, over 80% were of 13th/14th century date. Few of these produced more than thirty identifiable fragments; though several deposits, in particular Contexts 88 and 108, two associated well fills, produced more substantial assemblages. The assemblage dated to this period comprised mainly marine species; no freshwater fish were identified and migratory species were few. Gadidae, both large and small, appeared (on the basis of the number of deposits within which they occurred) predominant and included the remains of cod (*Gadus morhua* L), ling (*Molva molva* (L.)), haddock (*Melanogrammus aeglefinus* (L.)) and whiting (*Merlangius merlangius* (L.)). Hake (*Merluccius merluccius* (L.)), a species related to the gadids, was also occasionally identified.

16.1.8 Other species of apparent significance were conger eel and gurnard, with the remains of cartilaginous fish (probably mostly ray) and flatfish (including flounder/plaice cf. *Platichthys flesus* (L.)/ *Pleuronectes platessa* L., cf. sole (cf. *Solea vulgaris* Quensel) also occurring quite frequently. Several deposits (e.g. Contexts 88 and 108) produced fragments of possible turbot (cf. *Scophthalmus maximus* (L.)), a flatfish which is often interpreted as an indicator of high status occupation.

16.1.9 Remains of herring (*Clupea harengus* L.), although present in 30 of the 89 samples, appeared to be far less numerous than typically recorded from medieval assemblages, whilst eel (*Anguilla anguilla* (L.)) bones, again usually one of the most abundant taxa present, were recorded from just two deposits (Contexts 510 and 529). Additionally, bones identified as those of sea bream (Sparidae) and scad (*Trachurus trachurus* (L.)) were present in approximately 20% of the samples, whilst sporadic occurrences of mackerel (*Scomber scombrus* L.), bass (*Dicentrarchus labrax* (L.)) and wrasse (Labridae) were also recorded.

16.1.10 Most of the larger assemblages showed a similar range of taxa and no discernable differences between contexts were apparent from the assessment. Preliminary observations suggested that most species were represented by skeletal elements other than vertebrae, although vertebrae appeared to be the most commonly occurring element in the smaller assemblages. Large gadid remains, representing fish of over a metre in length, were evident; the largest examples generally identified as ling. Some evidence of butchery or processing was shown by the presence of knife marks on the larger gadid remains (especially on the vertebrae and cleithra) whilst several of the large conger eel fragments showed similar damage. This was particularly noticeable on the remains from Contexts 88 and 108.

16.1.11 Fish bones were examined from five deposits of later medieval (14th/15th and 15th/16th century; Contexts 94 and 100, and 240) and post-medieval (17th to 19th centuries; Contexts 120 and 168) date, together with hand-collected remains from an additional four deposits, Contexts 229 (16th/17th century), 167, 146, 644 (17th to 19th centuries). Numbers of identified fragments were few. In general, the later medieval and early post-medieval deposits showed

a similar range of species, whilst the fragments from the later deposits were mainly gadid and flatfish. However, insufficient fragments were available for any detailed comparisons.

16.1.12 Bird bones from this site were recovered by hand-collection and from the sample residues. As for the fish, pit and well fills of 13th/14th century date produced the bulk of the remains. No bird remains were identified from the Iron Age/Romano-British deposits.

16.1.13 Throughout the medieval and post-medieval periods, the main domestic birds, chicken and geese, clearly formed the most important component of the bird assemblage. Other taxa within the assemblage included gulls (Laridae), razorbill/guillemot (*Alca torda* L./*Uria aalge* Pontoppidan), ?manx shearwater (cf. *Puffinus puffinus* Brünnich) and wader (Charadridae), together with Corvidae and Columbidae remains. Unidentified passerine bones, all similar in size to sparrows, were present in four samples (Contexts 80, 453, 504 and 772). An 18th century deposit produced a single fragment (Context 137) identified as ?Brent goose, whilst other post-medieval deposits produced several duck bones.

16.1.14 Remains of small mammals and amphibians were scarce. Rat bones were present in a number of deposits, all of which were post-medieval. A possible rat incisor was recovered from Context 706, a deposit of Iron Age/Romano-British date, with an intrusive component of 18th century date. This bone is likely to be from the later date period. Remains of hedgehog were identified from one medieval pitfill (Context 340) and one post-medieval feature (Context 146).

16.1.15 In addition, five deposits produced amphibian remains including two part skeletons from Contexts 163 and 529.

16.2 *Statement of Potential*

16.2.1 The extensive programme of sieving at this site has produced a mainly well preserved fish assemblage, with additional remains recovered by hand-collection. Material from 13th/14th century deposits provided the largest concentrations of fish, with no significant assemblages produced from earlier (Iron Age/Romano-British) and later (post-medieval) deposits. Mostly marine fish are represented, showing a diverse range of species was present. Gadidae, both large (e.g. ling and cod), and small (e.g. whiting) formed the bulk of the fish bones.

16.2.2 Most of the fish identified could have been caught in local waters, with the exception of the large gadids. These fish may represent stock fish (i.e. cured or salted or dried fish), particularly ling, a deep water fish, generally encountered in more northern waters. A detailed examination of the presence of different skeletal elements and butchery/processing marks is warranted, with a view to providing information on the type of waste

recovered. This analysis may also enable the detection of differences in content between the various pit fills.

16.2.3 Systematically recovered fish assemblages are rarely available for study. Using data from these remains, it may be possible to address a number of questions regarding the dietary preferences and status of the inhabitants in this particular part of Shoreham, the supply of marine fish and general aspects of fish exploitation in the region (e.g. Research Objective (xiv) – 2.1 above). There is, however, little scope for the comparison of material between periods at this site because of the limited number of identifiable fish fragments from the earlier and later periods.

16.2.4 In comparison with the large assemblage of fish bone, bird remains formed a much smaller group. Typically, chicken and geese were the most numerous species represented. Chicken remains included juvenile and adult individuals, with several fragments showing evidence of medullary bone, indicative of the presence of laying hens. Wild birds were not numerous and most probably do not represent consumption refuse. The evidence should add to the overall picture of resource consumption, but detailed interpretation (as outlined for the fish bone above) will probably not be possible.

17.0 **THE SHELL** by David Dunkin

17.1 ***Factual Statement***

17.1.1 The evaluation and excavation at Ropetackle, Shoreham produced 249 contexts which contained marine molluscs (Table 1). Preliminary analysis indicates that the total assemblage is comprised of 90%+ oyster (*Ostrea edulis*). Other species include the cockle (*Cerastoderma edule*), mussel (*Mytilus edulis*), whelk (*Buccinum undatum*), periwinkle (*Littorina littorae*), scallop (*Chlamys varia*) and two cowrie shells (*Luria lurida*). Other species may be identified during more detailed examination. The weight of the total assemblage from all contexts is approximately 369.04 kg (Table 2). Four periods have been identified for analysis. The following table shows the number of contexts per period containing marine molluscs and the respective total weights of all species :

	Number of contexts containing Marine Molluscs (%age)	Total weight of all species by period
Iron Age/Romano British	2 (1.2%)	2.67 kg
13th/14th Century	180 (72%)	218.08 kg
16th/17th Century	20 (8%)	13.95 kg
18th/19th Century	47 (18.8%)	134.34 kg
TOTAL	249	369.04 kg

Table 1. Weight by period and number of contexts with percentage of total

17.1.2 Thus the greatest number of assemblages containing marine molluscs come from 13th/14th century contexts (180/72%) followed by the 18th/19th centuries (47/18.8%). The other two periods represented (LIA/RB and 16th/17th century) have relatively small numbers of contexts containing marine molluscs and their recorded weights are also proportionately less. As might be expected the relative number of contexts containing marine shells reflects the total number of contexts from each of the four individual periods identified.

17.1.3 However, if the differences in weight are compared, particularly between the early medieval contexts and the later post-medieval, the following may be observed: There are approximately four times more 13th/14th century contexts than 18th/19th century contexts containing marine shells (Table 1). However, when the weight ratio of the two periods is compared they are respectively (ie earlier : later) *c.* 1.6 : 1 (Table 1). Therefore, given that the largest proportion of the assemblages comprises oyster then it appears that there is considerable increase in the proportion of oyster eaten and /or discarded in the later post-medieval period. This will be an important element of the analysis (see below).

17.2 *Statement of Potential*

17.2.1 The very large size of the total assemblage of marine molluscs from Ropetackle offers an excellent opportunity to study a number of aspects of marine molluscan evidence not always possible from smaller assemblages. Study of species diversity and their relative quantities through time may enable an understanding of changes in food exploitation during the medieval and post-medieval periods. The oyster is pre-eminent in virtually all contexts where molluscan evidence has been identified but specific contexts have revealed higher numbers of other species. For example context 88 (upper fill of 13th/14th century well) also contained evidence of cockle, mussel, whelk and periwinkle (most of which were identified in the residue) and context 583 (fill of late 19th century well) contains an unusual assemblage of cockles, whelk, mussel and numerous scallop shells.

17.2.2 An abundance of oyster from a large number of closely dated well-sealed deposits (wells, pits, privies, cess pits etc) allows the possibility of inferring

whether this resource was being exploited from 'wild' or 'farmed/cultivated' populations and whether over-exploitation occurred at any time.

17.2.3 Furthermore, intra-shell patterning where there is a significantly higher number of left or lower valves from an assemblage of oyster might suggest formal food preparation or feasting (it is generally the concave or lower valve which is served). The latter was noted for example in one context at the Marlipins site (Context 4; 16th/17th century sealed garden soil), This will be particularly relevant when comparing assemblages from the early medieval with the late post-medieval period. This comparison could also be extended to other southern and South Coast locations which have produced large assemblages (eg St Nicholas Hospital, Lewes/Lydd Quarry etc) so that a regional framework can be further developed.

18.0 THE PLANT REMAINS by Lisa Gray

18.1 *Factual Statement*

18.1.1 Sampling and processing were carried out by the field team. A total of 114 bulk samples were taken. Sample sizes ranged from 5 to the standard 40 litres (lower figures being 100% of the context). 3091 litres of soil were collected. Some 1822 litres were processed leaving 1269 litres of soil unprocessed. All of the organic material was recovered by bucket flotation. The flots were caught in a 250 micron mesh and the residues in a 1mm mesh. Flots were dried or kept wet prior to transfer to the archaeobotanist.

18.1.2 Once with the archaeobotanist, the volume of each flot was measured and recorded in millilitres. Each flot was scanned under a low powered stereo-microscope with a magnification range of 10 to 40x. The abundance, diversity and state of preservation of organic remains in each sample were recorded for tabulation

18.1.3 In order to establish the potential of these samples some identifications have been made. These do not form a full species list and identifications made at this stage may change after detailed analytical work.

18.1.4 *Late Iron Age / Early Romano-British*

18.1.4.1 Plant remains preserved by charring were most frequent. These remains were dominated by grains of wheat (*Triticum* spp.) and barley (*Hordeum* spp.). Mineralised fragments of cherry/plum (*Prunus* spp.) stones were observed in sample <1083>. Sample <1075> contained moderate quantities of uncharred seeds of wild plants including elderberry (*Sambucus nigra* L.), blackberry/raspberry (*Rubus fruticosus*/ *idaeus*) and mallow (*Malva sylvestris* L.).

18.1.5 *Medieval- late 12th to 14th centuries*

18.1.5.1 Samples <1029> and <1065> produced abundant, well-preserved grains. Sample <1029> was dominated by wheat grains and sample <1065> was dominated by barley. Several samples produced moderate charred assemblages containing grains, pulses and seeds. For example, sample <1089> produced moderate quantities of broad bean (*Vicia faba* L.) seeds along with wheat and barley grains.

18.1.5.2 Samples <1058>, <1068>, <1070>, <1089>, <1093> and <1112> contained mineralised remains. Sample <1089> produced the largest mineralised assemblage. This was dominated by seeds of apple/pear (*Malus*/*Pyrus*). Whole and fragmentary remains of fruit seeds and stones were observed in the rest of the listed samples.

18.1.5.3 The remaining plant remains were uncharred and not mineralised. These were seeds of fruits that produce robust seeds with woody testas. These would have survived where more fragile uncharred plant remains will have decomposed. The richest uncharred assemblages were observed in samples <1015>, <1102>, <1107> and <1114>. Elderberry seeds were present in most samples. The richest sample contained many fruit seeds. These included seeds and fruit stones, such as plum (*Prunus domestica* L.), cherry/plum (*Prunus avium*/*cerasus*), grape (*Vitis vinifera* L.) and fig (Ficus *carica* L.).

18.1.6 *Post-Medieval –late 17th century to 18th century*

18.1.6.1 Mineralised and uncharred fruit seeds dominated these samples. Sample <1099> contained mineralised seeds including seeds of apple/pear and fig (*Ficus carica* L.). Sample <1012> contained abundant uncharred seeds including those of strawberry (*Fragaria* spp.) and blackberry/raspberry seeds. Abundant fragments of waterlogged wood were observed in sample <1091>.

18.1.7 *Undated (?medieval) Hearth*

18.1.7.1 This sample produced a rich and interesting charred assemblage dominated by pulses (cf *Pisum sativum*) and wheat grains.

18.2 *Statement of Potential*

18.2.1 Cereals and pulses were well-preserved in each period. Closer identifications of these will be possible. Few chaff fragments were observed so these remains are probably those of seeds and grains ready for milling, cooking or fodder. The undated sample <1020> produced a very rich charred assemblage and if it is possible to find a date for this sample it will enhance the final analysis. The fruit seeds and fruit stones in these samples are likely to be food waste. Further study may suggest whether the material does, in fact, represent domestic food waste or has some other (e.g.

commercial) origin. This would confirm the nature of the occupation of the site, and, if domestic, the foods consumed.

18.2.2 Comparative assemblages were observed in a 14th-15th century pit sample and a 13th-14th century shaft fill from excavations at Marlipins Museum, Shoreham -by-Sea, West Sussex (Gray 2003). The contents of these samples are similar to the Ropetackle flots because they contain a similar, albeit smaller, collection of grains, pulses and fruit seeds.

19.0 THE SAMPLES FOR PARASITE EGGS by John Carrott

19.1 *Factual Statement*

19.1.1 Four small subsamples were submitted for an investigation of their content of the eggs of intestinal parasitic nematodes. The samples were from medieval (12th to early 14th century) pit fills.

19.1.2 The samples were examined for the eggs of intestinal parasitic nematodes using the 'squash' technique of Dainton (1992). Assessment slides were scanned at 150x magnification with 600x used where necessary. Although primarily for the detection of intestinal parasitic nematode eggs, the 'squash' technique routinely reveals other microfossil remains, and where present these have also been noted.

19.1.3 The results of the investigations to determine the presence/absence and state of preservation of parasite eggs are presented below in context number order.

19.1.4 *Context 46 [13th century fill of pit 16]*
Sample BS 1016/P

19.1.4.1 The 'squash' was mostly inorganic, with some organic detritus and pollen grains/spores. No parasite eggs were seen.

19.1.5 *Context 490 [fill of pit 402. No direct dating evidence but other fills place this feature as 13th to early 14th century]*
Sample BS 1054/P

19.1.5.1 The 'squash' was approximately half of inorganic material and half of organic detritus. Many plant 'hairs' and tissue fragments were noted, together with many pollen grains/spores and two live soil nematodes. Fifteen poorly preserved *Trichuris* eggs and three ?*Ascaris* eggs were seen. Additionally, one egg of ?*Capillaria* was tentatively identified.

19.1.6 *Context 491 [fill of pit 402. No direct dating evidence but other fills place this feature as 13th to early 14th century]*
Sample BS 1055/P

19.1.6.1 The 'squash' was mostly inorganic, with some organic detritus and pollen grains. Two live soil nematodes were also seen. A small number of parasite eggs were observed (3 *Trichuris* and 2 ?*Ascaris*) in a similarly poor state of preservation as those recorded from Context 490 (Sample 1054, above).

19.1.7 *Context 611 [12th to early 13th century lower fill of pit 536]*
Sample BS 1094/P

19.1.7.1 The 'squash' was almost entirely inorganic with just a trace of organic detritus. Three structures were observed that *might* have been the extremely poorly preserved remains of trichurid eggs.

19.2 ***Statement of Potential***

19.2.1 Both of the samples from fills of pit 402 (Contexts 490 and 491) contained eggs of intestinal parasitic worms indicating a faecal component to these deposits. Parasite eggs were not definitely identified in either of the other two samples examined, but three structures observed in Sample 1094 (Context 611) could *possibly* have been very decayed *Trichuris* eggs. In addition, a single ?*Capillaria* egg was tentatively identified from Context 490. Eggs of this genus of parasitic nematodes of birds and mammals have been recorded from deposits elsewhere (e.g. at 16-22 Coppergate, York, Kenward and Hall 1995). Here poor preservation prevented a more definite identification.

19.2.2 Where positively identified, the *Trichuris* eggs were very poorly preserved, none of those seen retaining even one polar plug and often with the shell itself highly decayed. Comparison of these eggs (via an estimation of their original size from a few spot measurements of the remains) with data for modern trichurids (Ash and Orihel 1984; Kassai 1998) indicated that the eggs seen were probably of either *Trichuris trichiura* (Linnaeus) or *T. suis* (Schrank), the whipworms of humans and pigs respectively, or perhaps of both.

19.2.3 Even when well preserved, it is particularly difficult to distinguish these two species purely by visual examination of their eggs as the normal size range for the eggs of *T. trichiura* is a wholly contained subset of that for *T. suis*. When, as here, the trichurid eggs are not measurable, a statistical approach to their identification, or the determination of the presence of more than one population, is not possible. Similarly, the eggs of the ascarids *Ascaris lumbricoides* (Linnaeus) and *A. suum* (Goeze), the roundworms of humans and pigs, respectively, (though some parasitologists believe that there is just one species of *Ascaris* that infests both humans and pigs) are morphologically almost identical.

20.0 THE CHARCOAL AND WATERLOGGED WOOD by Rowena Gale

20.1 *Factual Statement*

20.1.1 This report includes the assessment of charcoal selected from 32 environmental and 12 handpicked samples, and 35 wood samples.

20.1.2 The charcoal from medieval features was generally well preserved and reasonably abundant, whereas that from earlier contexts was very sparse. Waterlogged wood from the medieval and later contexts was also frequent and fairly well preserved, although a few samples had dried out during storage (and were too structurally collapsed for identification).

20.1.3 This assessment is based on the overall observation of the character and content of each sample and the identification of a maximum of three fragments from each to indicate the general range of species present. When appropriate, the dimensions of the pieces of waterlogged wood were measured; these samples were also examined for evidence of tool marks and artefactual origins. Thirteen large timbers were not available for examination at the time of the assessment but are included here earmarked for future work.

20.1.4 The assessment was undertaken to establish the potential of the assemblage to produce relevant data on the woodland environment from the Roman to the post-medieval period, and to indicate the exploitation of woodland resources for fuel and artefactual use.

20.1.5 The environmental charcoal samples were processed by bucket flotation. The flots were caught on a 250 micron mesh and the residues sieved through a 1mm mesh. Twelve samples of charcoal were handpicked and mostly contained large chunks. Standard techniques (Gale and Cutler 2000) were used to prepare the charcoal, which was examined using a Nikon Labophot-2 compound microscope at magnifications up to x400. The anatomical features were matched to reference slides of modern wood. When possible, the maturity of the wood was recorded, i.e., heartwood/ sapwood.

20.1.6 The following results were obtained:

LIA/Roman	A single fragment of oak charcoal was identified from the fill of a gully 553.
12th – 13th century	Oak, alder and beech were identified from (sparse) deposits of charcoal from the fills of pit 620 and cess pit 534 (Table 1). Beech and oak were also recorded from the fills of cess pit 16 and pit 505, both of which were provisionally assigned to this period.
13th – 14th century	Thirty one samples of charcoal and 11 of wood were examined from pits 32, 73, 115, 130, 222, 440, 460,

505, 536, 601, 665 and 705, from cess pits 156, 500, and from wells 87, 453, 353 and 134. Much of the charcoal, especially that from pits, is likely to represent fuel debris and the current study demonstrates that this included a high proportion of oak large wood. Other species identified included beech, birch, alder, hazel, gorse/ broom, willow/ poplar, pine, ash and possibly alder buckthorn.

Wood securely dated to this period included fragmented artefactual remains, possibly the base of bowl made from maple and pieces of oak plank, in well 453 and a beech plank in pit 665. Pieces of plank were also recovered from pit 708, including substantial bits of oak and elm. Although dating for these planks is uncertain, they are thought to be medieval. Several further timbers from this pit still need to be identified.

15th- 16th century — Two samples from pits 93 and 99 included small amounts of charcoal, which included beech, oak, alder and gorse/ broom (Table 1).

18th-19th century — Charcoal was examined from pits 51, 575 and 183 and cess pit 644. These samples were small. The taxa identified included oak, elm and gorse/ broom.

Wood samples from pit 747 and cess pit 644 were identified, respectively, as oak and a piece of degraded roundwood from an unidentified softwood. Two oak wedges were included with other more amorphous fragments in pit 708.

20.2 *Statement of Potential*

20.2.1 On a period-by-period basis the charcoal samples have the following potential:

LIA/ Roman — No further work is possible.

12th – 13th century — Further work on this material would not provide significant data.

13th – 14th century — The demand for woodland products in southern Britain, especially fuel, was probably at its greatest during this period, particularly in iron- and glass working areas such as the Weald of Sussex and Kent. Although Ropetackle was separated from the Weald by the South Downs, its proximity to this region adds considerable

	importance and interest to the charcoal and wood samples, and therefore a number of samples should be submitted for full analysis. The material should indicate the exploitation of resources in this period. For example, the presence of oak large wood may indicate use of scrap timber for fuel, rather than specifically harvested wood, which may have been easier to obtain in an urban context.
15th- 16th century	To provide comparative material to that from 13th – 14th century contexts, it is suggested that a sample should be submitted for full analysis.
18th-19th century	Further work on this material would not provide significant data

21.0 REVISED AIMS AND OBJECTIVES

21.1 The original research objectives have been reviewed, and in the light of the evidence identified above further objectives have been established for the post-excavation analysis. These will be considered in addition to the original aims and objectives (see paragraph **2.1** above), and can be summarised as moves to establish as far as possible:

xv) What is the nature of the Late Iron Age/Romano-British occupation of the site?

21.2 The overall aim of the study will be to characterise the site and place it in its local and regional context.

22.0 PROPOSED METHODS OF ANALYSIS

22.1 *Site Stratigraphy*

22.1.1 It is proposed to undertake a full analysis of the site stratigraphy, dating evidence and feature distribution (e.g. distribution of contemporary pits), to establish the phasing and development of the site. This will involve the creation of a Harris Matrix for some of the more complex intercutting feature groups in Area 4A, and for the linear features in Area 4B. Discrete individual features having no stratigraphic relationships with other features, but having internally complex fills, will have matrices prepared if this would aid specialist study of artefact and/or ecofact assemblages.

22.1.2 Where possible, the relative dating from secure stratigraphic sequences (as appearing on the matrix or matrices) will be compared with dating evidence from other sources to establish as far as possible an absolute chronology, and

to confirm and refine the pottery dating. This will be an iterative process, requiring close liaison with the relevant specialists, principally the medieval and post-medieval ceramicist (see also 22.2 below). The secure stratigraphic sequences will be used, as far as possible, to select assemblages for detailed specialist study.

22.1.3 Where necessary parallels will be sought for individual features (such as the possible saw pit) and comparisons made with remains from the south-east of England and further afield.

22.2 ***The Pottery*** by Luke Barber

22.2.1 It is proposed to undertake selected further analysis on the assemblage and produce a full report for publication. The fabric series established for Marlipins Museum will be re-used and extended as necessary. Each context group will be assessed again, taking into consideration fabric, form and stratigraphy (see also 22.1.1 and 22.1.2 above) in order to refine dating of both the context itself and the associated fabrics and isolate any residual/intrusive elements. Imported pottery from all contexts will be quantified and published. Selected larger, and/or important contexts, from a chronological range, will be subjected to full quantification by fabric (sherd count and weight), and where appropriate, minimum number of vessels by form. This information will be recorded on pottery summary sheets. The following is proposed for the different periods:

22.2.2 *Late Bronze Age/Iron Age* – brief mention of the single sherd.

22.2.3 *Late Iron Age/Early Roman* – summary overview of size and date of assemblage along with range of fabrics present. Up to 5 illustrations.

22.2.4 *Earlier Medieval* - A brief summary of the 11^{th-} to 12^{th-} century material will be given and the fabrics will be added to the fabric series. Up to 5 illustrations.

22.2.5 *The 13th- to 14th- century* material will be used to establish a full fabric sequence. All imports will be quantified and published. A selection of up to 6 groups will be fully published (more is not needed due to the repetition of data) as well as a selection of the more interesting pieces from smaller groups. The studied groups will include Contexts 33, 80, 88, 108, 521 and 736. Up to 100 illustrations (including all complete vessels)

22.2.6 The *15th- to 17th- century* material will be scanned in order to establish as far as possible the fabric series for these periods. A summary overview will be produced but no groups are proposed for detailed study.

22.2.7 The *18th century* material will be used to continue the fabric series and the three best groups will be studied in full: Contexts 124, 570 and 739.

Although form parallels will be sort from elsewhere up to 40 illustrations are proposed.

22.2.8 The *19th- century* groups will be used to continue the fabric series and full analysis will be undertaken on two of the best groups which span different parts of the century. Initially Contexts 598 and 644 (or 647) are proposed for analysis. These offer a representative account of the 19th- century assemblage. Although form/decoration parallels will be sought from elsewhere the assemblages may require up to 50 illustrations and 10-15 plates.

22.2.9 A full report (within the parameters outlined above) will be produced for publication outlining the size and nature of the overall assemblage (from prehistoric to post-medieval) and listing the full fabric series. Each quantified group will be presented in chronological order with a discussion addressing changing pottery supply, forms and status.

22.3 ***The Clay Pipe*** by Luke Barber

22.3.1 The clay pipes will be divided into bowl/stem types and listed for archive by context. All maker's names/initials will be noted and the data used to help refine the dating on sealed contexts. Once complete a summary report will be produced for publication. This will outline the use and types of clay pipes at the site from the 17th to 19th centuries with reference to key groups (e.g. Context 647). A full list of makers will be given in the final report. Although already published parallels to most pipe types negates the need for all types to be drawn for the current site a few examples (maximum of 10) may be drawn/photographed if good parallels cannot be found.

22.4 ***The Ceramic Building Material*** by Luke Barber

22.4.1 The CBM assemblage will be listed for the archive on post-Roman tile and brick record forms. The majority of CBM will only be quantified by type/count and weight per context, though any complete dimensions will be noted. Samples of the main fabric types from well sealed and dated contexts will be retained. A select number of large context groups from across the complete chronological range will be studied in slightly more detail, and the fabrics will be recorded. This is proposed for the two largest assemblages for each period. Following this most of the assemblage will be discarded.

22.4.2 Only a representative selection of forms and fabrics will be retained. A summary report will be produced from the archive data. This will concentrate on giving an overview of the changing fabrics and forms of the CBM at the site from the 13th to 19th centuries. Fabric descriptions for the published report will use those already established from the Marlipins excavation, with new fabrics being described to a comparable standard (thus extending the fabric series). No material is proposed for illustration.

22.5 ***The Burnt Clay*** by Luke Barber

22.5.1 It is proposed to fully list all the burnt clay for the archive on pro forma. A close inspection will be made to identify any pieces which may have been shaped or for any pieces of briquetage (based on the presence of added tempering). Any such pieces will be fully described for the archive. Following this the majority of the assemblage will be discarded and a short note produced for publication. This will outline the size and date of the assemblage from the site and describe the range of shaped pieces/objects present in the different periods. Although no illustrations are envisaged at present it is considered prudent to allow for up to four items to be drawn.

22.6 ***The Metalwork*** by Luke Barber

22.6.1 It is proposed to undertake some limited further analysis on the metalwork as part of the post-excavation programme. Initially some of the ironwork will need to be x-rayed. At present up to 30 items are considered likely to merit this, or manual cleaning, in order to help with their identification. None of the lead objects are considered to merit anything other than passive conservation, though up to six of the copper alloy items will need x-raying/cleaning. Following this all the material will be listed on metalwork record forms for the archive. At this point it is proposed to discard much of the assemblage, only retaining the more diagnostic medieval and early post-medieval pieces and a sample of the medieval/early post-medieval nails.

22.6.1 Further work will concentrate on the medieval assemblage, particularly on objects which will help refining the dating of the ceramic groups and/or sheds light on past activities at the site. By placing emphasis on the medieval contexts the danger of studying undiagnostic residual metalwork in later contexts should be avoided.

22.6.2 A concise report will be produced for publication. This will outline the size and character of the metalwork assemblages in the different chronological periods, as dated by the ceramics (bearing in mind the problems of residuality). Following this a more detailed description will be given by object type for the securely stratified medieval pieces, particularly the copper alloy medieval buckles which may help refine the ceramic dating in certain contexts. Post-medieval metalwork will only be discussed very briefly. Up to 10 iron, three lead and 12 copper alloy objects will be illustrated.

22.7 ***The Coins*** by Luke Barber

22.7.1 It is proposed to list the coins for the archive and undertake some cleaning on the illegible examples in an attempt to identify them. The coins will be used to help date the ceramics groups where possible and to that end a short note will be produced for the published report.

22.8 ***The Glass*** by Luke Barber

22.8.1 It is proposed to list the glass for archive by date and type. At this point small 18th- to 19th- century groups will be discarded. Larger 19th- century groups will also be discarded if of no particular importance. Examples of locally made embossed bottles will be retained from all contexts due to their potential long-term interest for local historical studies/displays. Following the completion of the archive a summary report will be produced for publication. This will outline the size and nature of the glass assemblage at the site in different periods as a whole. Mention will be made of local makers in key 19th- century groups. No pieces are proposed for illustration.

22.9 ***The Worked Flint*** by Luke Barber

22.9.1 It is proposed to list the worked flint for archive and produce a brief note outlining the assemblage for publication. This will highlight the presence of worked flint of different periods on the site but will not undertake any detailed analysis. No material is proposed for illustration.

22.10 ***The Fire-Cracked Flint*** by Luke Barber

22.10.1 The material will be listed for the archive and discarded. No report is proposed for publication.

22.11 ***The Geological Material*** by Luke Barber

22.11.1 It is proposed the stone is fully listed for the archive. This will involve full quantification by count and weight for each different stone type with notes being made on worked pieces. The stone will be identified by an experienced geologist who has a working knowledge of the regional geology and, if necessary, the reference material held at Southampton University will be consulted to aid identifications of some stones. Following this the majority of the stone will be discarded. The most diagnostic of the worked pieces will be retained along with samples of the main stone types represented at the site, and will be identified by appropriate specialists as necessary (provisionally David Martin, ASE Senior Historic Buildings Officer – architectural fragments; Luke Barber – artefects).

22.11.2 Following this a report will be prepared for publication on the geological material. The report will outline the types of stone present along with their quantity in different periods, however, due to the danger of residuality and re-use, only the stone from sealed medieval contexts will be studied in detail. The medieval material will be discussed under the headings of 'Building Materials', 'Objects' and 'Other (Local/non-local)'. The report will also include an overview of the exploitation of the local/regional resources and the degree to which the material reflects the port's trade. Up to 10 pieces are proposed for illustration.

22.12 ***The Miscellaneous Items*** by Luke Barber

22.12.1 The mortar/plaster will be listed for the archive and checked for moulded pieces. Following this the material will be discarded and a short note produced for publication. The worked bone will all be rapidly listed for archive prior to a summary report being produced outlining the nature of the assemblage. The report will concentrate on the medieval material and will include illustrations of the three needles. Parallels will be sought for such items in other excavated medieval assemblages from ports.

22.12.2 No report is proposed for the leather from the late post-medieval deposits though a short note will be produced on the fibrous material from 448 if it is deemed to be of medieval rather than intrusive origin. All the leather and other materials, such as the pipe-clay figure, will be listed for archive

22.13 ***Conservation*** by Luke Barber

22.13.1 The majority of the finds categories do not require any conservation treatment. Consideration is however needed with the metalwork. Generally the non-ferrous metalwork is in poor condition but in most instances can be studied with no or minimal surface cleaning. At present they appear stable although new packaging will be needed. The ironwork is in very poor condition and most pieces exhibit heavy surface corrosion products. Most pieces are easily identifiable to form, however, several will require some x-raying and/or cleaning to clarify form/detail. All retained pieces will need proper repackaging with silica gel.

22.13.1 A number of pieces of waterlogged wood are present in the assemblage, some of which are worked. These are currently kept wet in a water-filled tank. None of the items are proposed for long-term curation, being mainly post-medieval planks etc. As this material will be discarded after species identification and notes on working are made no active conservation measures are proposed. The few bits of leather present are on the whole semi-dried out. The majority relate to 19th- century shoes and boots which have not yet fully decayed. None are proposed for active conservation

22.14 ***The Bone*** by Lucy Sibun

22.14.1 To achieve the aims outlined above it is proposed that full identification and further study will be undertaken on selected key contexts. The largest contexts from the 13th and 14th centuries (to include contexts 33, 80, 108, 223, 541, 736) will be studied in detail. This study will include identification of bone type and species as well as estimates of age and sex. To achieve age estimates epiphyseal fusion will be recorded and subsequently interpreted using data provided by Silver (1969), dental wear will be recorded using Grant's system (1982) and dental eruption will be calculated using data from Silver (1969) and Levine (1982). Schmid (1972) will be used to sex pig canines. Measurements for the estimation of sex or stature will be taken wherever possible, using methods outlined by Von Den Driesch (1976). Each fragment will then be studied for signs of butchery, burning, gnawing and pathology. All contexts from the remaining phases will be studied to identify species present and the relative quantities of each. Whilst it would be possible to record ageing and butchery data as well as some measurements for fragments in other phases, the resulting sample would not be statistically viable.

22.14.2 An overall quantification table will be produced outlining the numbers of each species in each phase of occupation. The main domesticates (cattle, sheep/goat, pig) from the 13th -14th centuries will then be studied together. This study will examine the relative importance of each species within the assemblage (to include butchery patterns, body part data and aging data) in an attempt to understand animal husbandry practices. The remaining species will be examined individually.

22.14.3 Wherever possible, data from comparable sites such as Southampton and Winchelsea will be included in the report and discussion. It is hoped that as a result of this work enough information will be available to examine animal husbandry practices in the 13th -14th centuries, and to provide an overview of the species in all phases. The material to be studied further will be fully quantified and recorded in Microsoft excel. A paper and disc copy of the bone record sheets will be housed in the archive.

22.15 ***The Fish, Small Mammal, Bird and Amphibian Bone*** by Deborah Jaques

22.15.1 Material from eight deposits (Contexts 88, 108, 223, 300, 354, 453, 586 and 736), all of 13th/14th century date should be recorded in some detail. Although four samples were processed from Context 108, only the material from one (and the hand-collected assemblage) should be further analysed. The hand-collected material alone amounts to approximately 100 identifiable fragments with approximately 600 identifiable fragments from Sample 1056.

22.15.2 The record should include counts and weights for all fish bones and subjective records should be made of the state of preservation, colour of the

fragments, and the appearance of broken surfaces ('angularity'). Additionally, semi-quantitative information should be recorded for each context concerning fragment size, dog gnawing, burning, butchery, and fresh breaks. Identification of the remains to family, genus or species should be undertaken where possible. Selected measurements should be taken where appropriate for the calculation of fish size. Remains from other deposits should be scanned to check for additional species and measurements to increase available data set.

22.15.3 The assemblage of bird bones is somewhat smaller in size, but a detailed record should be made of all the medieval remains. Similar records concerning preservation and alteration (such as butchery) of the bone should be made, together with the usual measurements (after von den Driesch 1976) and any information regarding age-at-death.

22.16 ***The Shell*** by David Dunkin

22.16.1 It is proposed that 21 selected contexts representing the four periods should be looked at in detail. The ones selected are from a range of features and numerically reflect the total numbers of contexts from each of the four periods. A small number of the chosen contexts display species diversity (eg contexts 88, 386) and unusualness (context 583). The majority are the largest assemblages (e.g. contexts 33, 644) representing the four periods from well-sealed uncontaminated contexts; a 30% sub-sample of these large assemblages will be analysed. This should enable statistically viable comparisons to be made. The selected contexts are summarised in Table 3 below and are shown by period together with context type and the total weight of marine shells from each context.

22.16.2 Assessment of whether this resource was being exploited from 'wild' or 'farmed/cultivated' populations, and whether over-exploitation occurred at any time, will be inferred by ageing individuals (greater numbers of young individuals <5 years implies over-exploitation). Other methods to be deployed will be to study the ratio of age to shell size (measurement of length v breadth) and infestation of the shell by polychaete worms and/or burrowing sponge. Shell distortion may reflect overcrowding in 'wild' colonies and percentages of distorted shells in assemblages will be noted.

22.16.3 A more cursory analysis of the remaining contexts should be undertaken. The numbers of shells from each context should not be counted but estimated and species diversity noted. Also it should be possible to estimate an approximate age range of the species (particularly oyster) from each context and whether there is evidence for excessive shell distortion or infestation within them. This can be done by a summary inspection of each assemblage. Any contexts which contain a significant number of oyster left valves could also be quickly identified from a cursory examination.

PERIODS	IA/RB	13th/14th c.	16th/17th c.	18th/19th c.
CONTEXTS/ FEATURE TYPE/ WEIGHT	**553 Slot 1** Roman Ditch (2.51 kg)	**33** Pit (23.36 kg)	**225** Pit (1.16 kg)	**239** Privy (16.45 kg)
		80 Cess Pit (2.28 kg)	**372** Pit (3.25 kg)	**386** Well (12.38 kg)
		88 Well (4.77 kg)	**431** Pit (2.45 kg)	**570** Privy (4.80 kg)
		96 Well (16.44)		**583** Well (14.80 kg)
		116 Pit (3.93 kg)		**598** Privy (10.25 kg)
		347 Pit/Cess Pit (5.29)		**644** Privy (33.35 kg)
		354 Well (15.31 kg)		**647** Privy (22.20 kg)
		541 Pit (12.20 kg)		
		611 Cess Pit (0.5 kg)		
		736 Pit (6.74 kg)		

Table 3 Showing 21 selected contexts with periods for full analysis, with feature type and weight of marine shells per context

22.17 ***The Plant Remains*** by Lisa Gray

22.17.1 No further work is proposed on the Late Iron Age/Early Romano-British samples, because there are so few features of this period that the nature of the activity cannot be properly understood and detailed analysis could not therefore be placed in context. Brief reference, based on this assessment, will be made in the report.

22.17.2 The following medieval samples are proposed for full analysis:

1002, 1003, 1006, 1007, 1008, 1013, 1015, 1017, 1020, 1027, 1029, 1035, 1045, 1049, 1050, 1056, 1058, 1059, 1065, 1067, 1068, 1070, 1072, 1073, 1082, 1088, 1089, 1092, 1101, 1102, 1107, 1111, 1112, 1114.

The undated, but possibly medieval, sample from the hearth will not be analysed initially. However, if the work on the stratigraphy and site morphology suggests that this feature is important to the understanding of the site, and the dating can be confirmed with reasonable confidence, similar analysis will be undertaken.

22.17.3 The post-medieval samples specifically mentioned in section 18.1.6.1 (i.e. 1099, 1012, 1091) will be analysed as for the medieval samples.

2.2.17.4 The plant macro-remains in each sample will be examined using a stereomicroscope with magnifications of between 10 and 40 times. For the plant remains modern seed and cereal reference collections and reference manuals will be used (e.g. Anderberg 1994 and Berggren 1981). Cereal identifications will be made using Charles (1984) and Hillman et al (1996).

22.17.5 Plant type, frequency and mode of preservation will be recorded onto paper record sheets and stored as Excel files. The quantity of waterlogged and mineralised plant remains will be estimated. Charred cereals and pulses will be sub-sampled and counted.

22.17.6 The results will be compared with those from the recent Marlipins Museum excavation, and used to characterise the dietary and economic conditions in Shoreham in the medieval and post-medieval periods.

22.18 ***The Samples for Parasite Eggs*** by John Carrott

22.18.1 Although parasite eggs were present in some of the examined deposits their poor state of preservation renders them of little interpretative value beyond that reported in the initial assessment. Consequently, no further investigation of these deposits for the eggs of intestinal parasitic nematodes, or other microfossils, is recommended. The results of the assessment will be incorporated into the report text.

22.19 ***The Charcoal and Waterlogged Wood*** by Rowena Gale

22.19.1 It is recommended that five samples of charcoal should be submitted for full analysis:

13^{th} – 14^{th} century : Samples 1000, 1008, 1029 and 1050
15^{th}- 16^{th} century : Sample 1006

22.19.2 Although it will be difficult to produce temporal comparisons with the limited environmental data available, the analysis will of value to indicate the economic use of woodland and other timber resources for these periods. The results should be tabulated and discussed in full with reference to:

- The range of taxa identified and implications for local woodland and the environment.
- Evidence of woodland management.
- The exploitation and provisioning of woodland resources.
- The exploitation of other sources, e.g. re-used timber
- Evidence from contemporary sites in the region

22.19.3 In addition, it is recommended that 13 wood samples are examined and identified as described above.

23.0 ARTEFACTS AND ARCHIVE DEPOSITION

23.1 Following completion of the post-excavation work, the artefacts recovered during the excavation and the site archive will be placed in suitable museum, to be agreed with the Landowner and the County Archaeologist for West Sussex. It is initially proposed to deposit the archive (which will include the retained finds) in Worthing Museum, or the Marlipins Museum, Shoreham-By-Sea.

24.0 REPORT AND PUBLICATION

24.1 Report

24.1.1 The Ropetackle excavation was the first large-scale archaeological investigation to be undertaken in the historic core of Shoreham-by-Sea. The results from this site offer a unique opportunity to study a variety of evidence for occupation in the town from the medieval and post-medieval periods. There is also evidence of prehistoric and Romano-British activity, though its potential for detailed interpretation is limited.

24.1.2 It is proposed that the artefacts and ecofacts should be studied to the levels identified above and that a full report should be produced. This will include a stratigraphic description, interpretation and discussion of the broader context of the site in relation to other known sites in Shoreham-by-Sea and further afield. The medieval ports of Southampton and Winchelsea are suggested for initial comparison; others may become apparent during the detailed analysis.

24.1.3 The report will include results of the Stage 1 evaluation and Stage 2 excavation. The basic results will be discussed chronologically by period, although sub-divided by area (Areas 4A and 4B) for ease of reference. The report will also include a synthesis, considering all aspects of the evidence, of the site as a whole by period. Appropriate maps, plans (including detailed feature plans and phased area plans), sections, elevations, tables and a selection of drawings of a representative selection of artefacts will illustrate the report.

24.1.4 It is provisionally suggested that the final report (excluding tables) will be structured thus:

(See following page)

PROVISIONAL REPORT STRUCTURE

Introduction (location, geology, topography, planning background, local excavations),			*c.*200 words
The Excavation (including evidence from the evaluation)	**Background**		*c.*200 words
	Phases	Undated	*c.*500 words
		LBA	*c.*25 words
		LIA/RB	*c.*250 words
		Saxo-Norman	*c.*50 words
		C12th to C13th	*c.*400 words
		C13th to C14th	*c.*2,500 words
		C15th to C17th	*c.*250 words
		C17th to C18th	*c.*1,000 words
		C19th	*c.*750 words
		C20th	*c.*100 words
Specialist Reports	**Pottery**		*c.* 5000 words
	Clay Pipe		*c.* 750 words
	CBM		*c.* 750 words
	Burnt Clay		*c.* 450 words
	Metalwork		*c.* 650 words
	Coins		*c.* 40 words
	Glass		*c.* 600 words
	Worked Flint		*c* 150 words
	FCF		*c.* 50 words
	Stone		*c.* 1000 words
	Miscellaneous		*c.* 400 words
	Animal Bone		*c.* 2,500 words
	Fish Bone		*c.* 2,500 words
	Shell		*c.* 2500 words
	Plant Remains		*c.* 2500 words
	Parasite Eggs		*c.* 300 words
	Charcoal (incl. Wood)		*c.* 2,000 words
Discussion			*c.* 2,500 words
Acknowledgements			*c.*150 words
References			

NB. These text lengths are approximate. The total word-length above is **31,015**.

Cont'd on next page - Figures

Figures

1. Site Location (inc. Old Shoreham and historic core of New Shoreham, evaluation trenches and excavation areas)
2. Plan of Area 4A
3. Plan of Area 4B
4. Phase plan: Bronze Age, Iron Age/R-B, Saxon
5. Selected sections from above periods
6. Phase plan: 12-13th and 13-14th centuries
7. Selected sections from above periods
8. ditto
9. Phase plan: 15-16th and 17-18th centuries
10. Detail drawing of saw pit
11. Selected sections from above periods
12. Phase plan 19th and 20th centuries
13. Selected sections from above periods
14-27. Pottery drawings and plates
28. Clay pipes
29. Burnt clay
30-31. Metalwork
32-34. Stone
35. Miscellaneous artefacts

24.1.5 Pre-publication copies of the report will be submitted to the client, the County Archaeologist, the West Sussex County Sites and Monuments Record and to Worthing Museum, if required.

24.2 Publication

24.2.1 It is envisaged that the report described above will be submitted for publication in the *Sussex Archaeological Collections*, subject to acceptance in principle of the synopsis in this report by the editor / editorial committee. If the report is declined by *SAC* it will be published either in the proposed new SE Regional Monograph series (if this is commenced in time), or as a *British Archaeological Reports* monograph (perhaps combined will other relevant, but smaller, site reports).

25.0 RESOURCES AND PROGRAMMING

25.1 Staffing

25.1.1 The project team will be composed as follows:

Team Member	Experience	Task
Luke Barber BSc MIFA	Excavation, Evaluation Publication Project Management Finds Analysis	Project Manager Finds Reports (pottery, metalwork, slag, stone etc)
To be confirmed, following departure of I. M. Greig from ASE	Project Management	Overall project management; editing assistance
Simon Stevens BA MIFA	Excavation, Evaluation (Director Level), Publication	Site Analysis Report Production
Chris Butler	Flint Specialist	Flint Report
Lucy Sibun BSc AIFA	Bone Specialist	Bone Report
Deborah Jacques	Fish Bone Specialist	Fish Bone Report
David Dunkin	Shell Specialist	Shell Report
Lisa Gray	Plant Remain Specialist	Plant Remains Report
Rowena Gale	Charcoal Specialist	Charcoal Report
Palaeoecology Research	Insect Remains Specialist	Insect Report
Samantha Crawt BA PIFA	Archives Officer Finds Analysis	Archive Production CBM and Burnt Clay Report
Justin Russell/ Fiona Griffin	Archaeological Illustration	Illustration

25.2 Project Programming

25.2.1 The time allocations are calculated as shown on the following table. (Italics represent post-excavation work already completed.) Team members are identified as follows:

LB-Luke Barber; SS-Simon Stevens; CB-Chris Butler; LS-Lucy Sibun; DJ-Deborah Jacques; DD-David Dunkin; LG-Lisa Gray; RG-Rowena Gale; PR-Palaeoecology Research; I. of A.-Institute of Archaeology, University College London; JR-Justin Russell; FG-Fiona Griffin; SC-Samantha Crawt; *TBC*-to be confirmed

Task	Team Member	Time Requirements (days)	Cost
Processing of Finds	*Various*	*complete*	
Processing of E nvironmental Samples	*Various*	*complete*	
Preparation of post-excavation project design	*SS, LB, JR Specialists*	*complete*	
SUB-TOTAL			
Analysis & preparation of specialist reports			
Pottery analysis	LB	23 & fees	
Clay Pipe analysis	LB	2	
Ceramic building material analysis	SC	4	
Burnt Clay analysis	SC	2	
Metalwork analysis	LB	5	
Coin analysis	LB	0.25	
Worked flint analysis	CB	fee	
Geological material analysis	LB	4 & fees	
Analysis of misc. artefacts and slag	LB	3 & fees	
Bone analysis	LS	15	
Fish Bone Analysis	DJ	fee	
Shell analysis	DD	11 & expenses	
Plant Remains analysis	LG	fee	
Charcoal analysis	RG	fee	
Dendrochronology date		fee	
Conservation	I.of A.	fee	
Illustration and preparation of report text			
Illustrate plans and sections	JR, FG	15	
Illustrate artefacts	JR, FG	35	
Report text (inc. stratigraphic analysis, background research and discussion)	SS	25	
Editing and Corrections	SS LB JR, FG	3 3 4	
Project management	*TBC*, LB	7	
Archive Preparation			
Completion and deposition of archive	SC	2	
Miscellaneous			
Mileage and Expenses			
SUB-TOTAL			
TOTAL (all post-excavation)			

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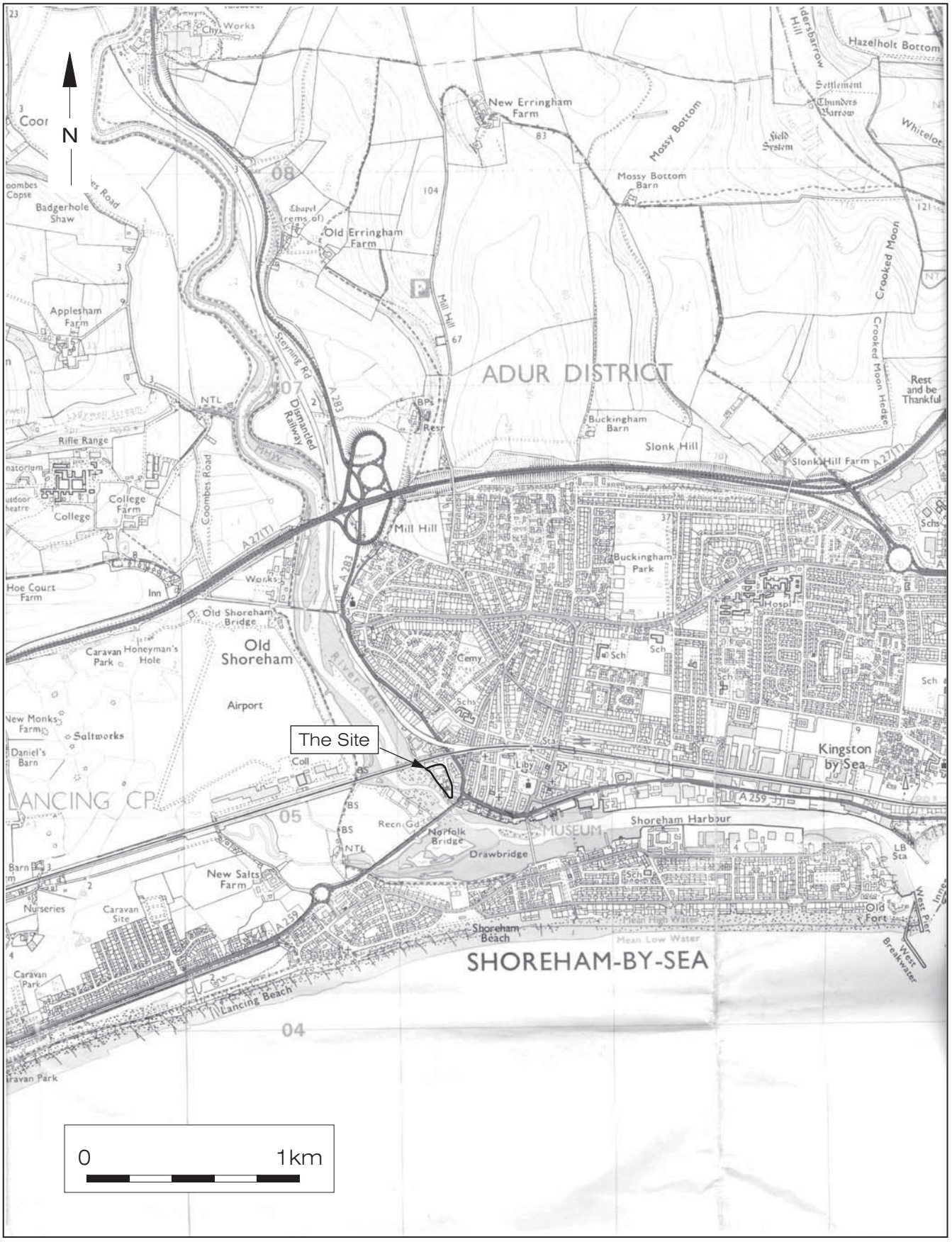
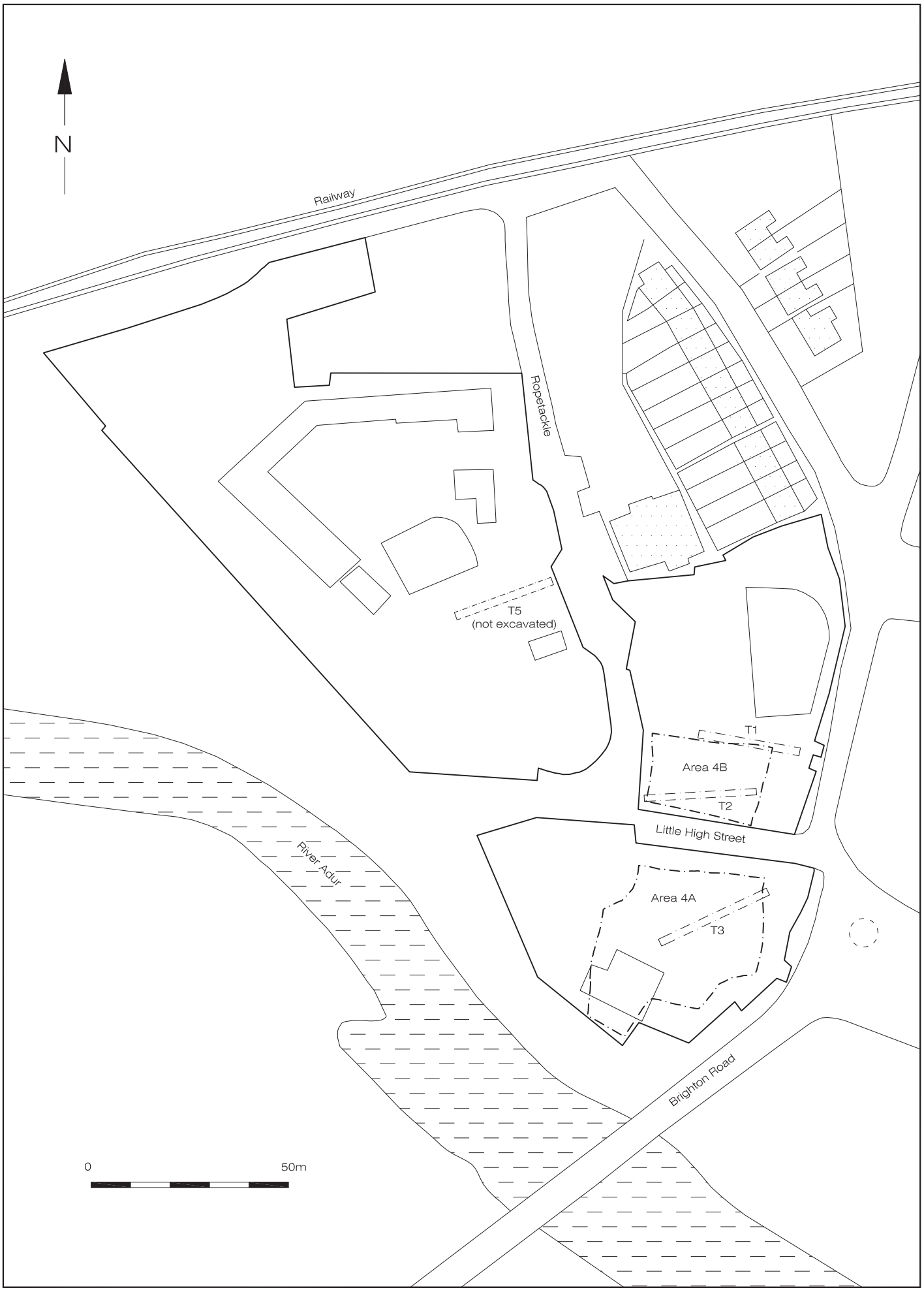


© ARCHAEOLOGY SOUTH EAST		Ropetackle, Shoreham-By-Sea	Fig. 1
Ref: 1639	Oct 2004	Site Location Plan	



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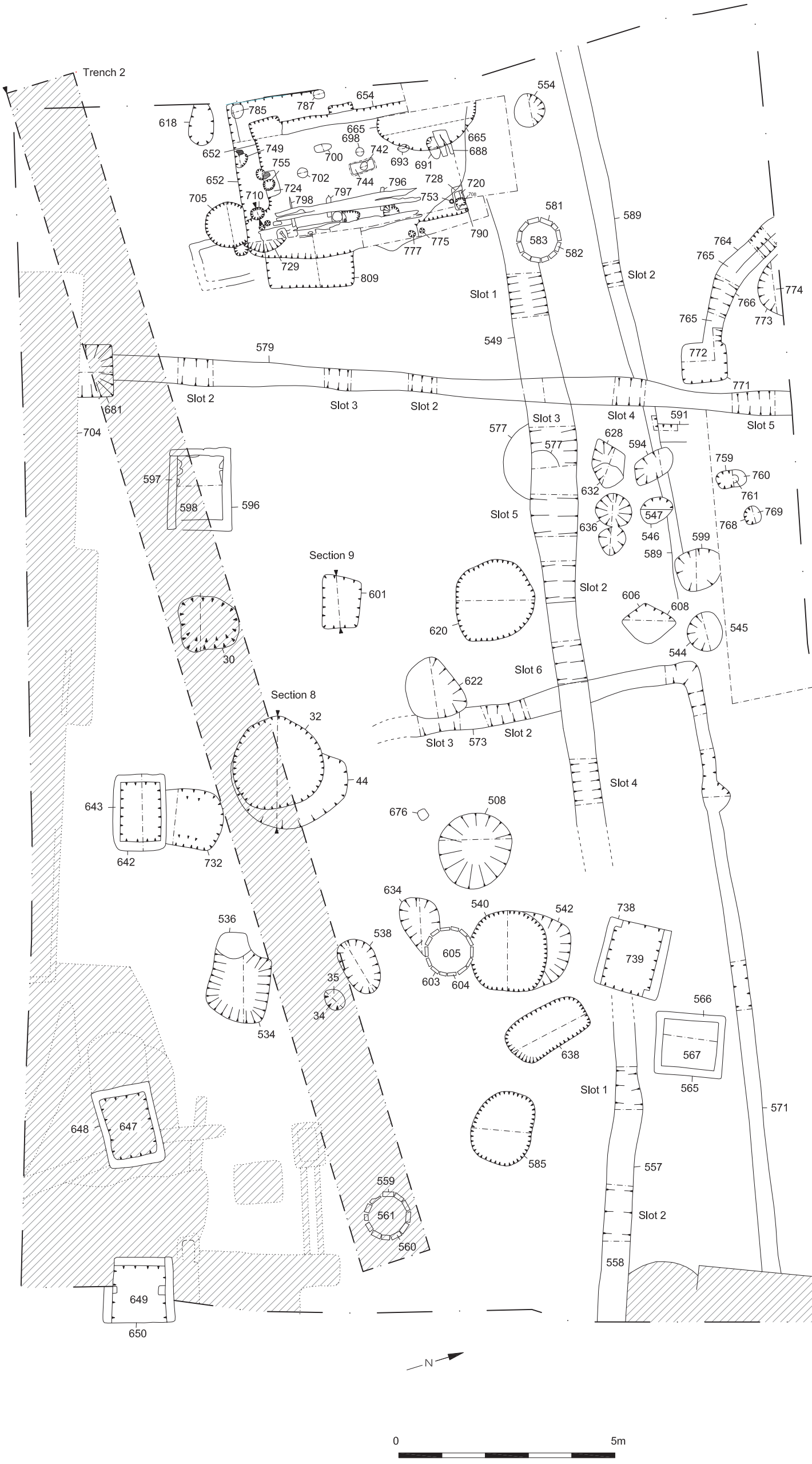
Ref: 1639	Oct 2004	Plan showing Evaluation Trenches and Excavation Area	

© ARCHAEOLOGY SOUTH EAST		Ropetackle, Shoreham-By-Sea	Fig. 3
Ref: 1639	Oct 2004	Area 4A	



© ARCHAEOLOGY SOUTH EAST		Ropetackle, Shoreham-By-Sea	Fig. 4
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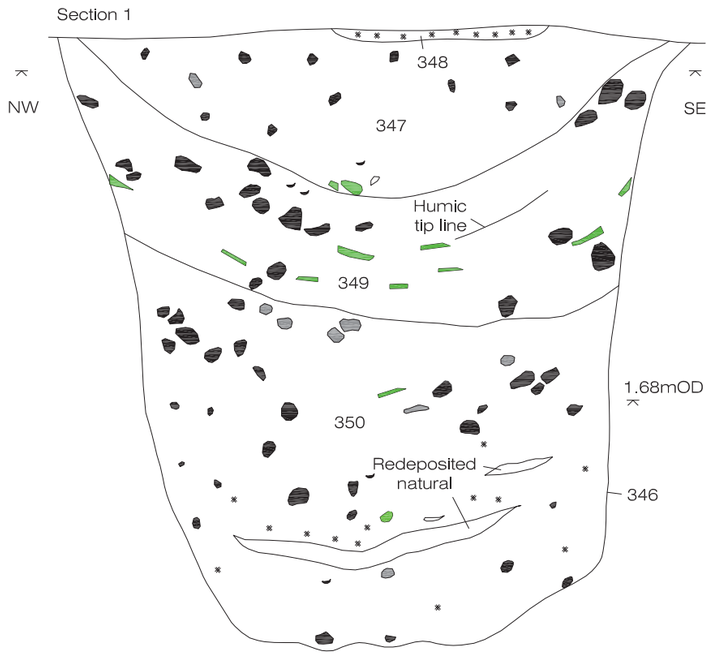

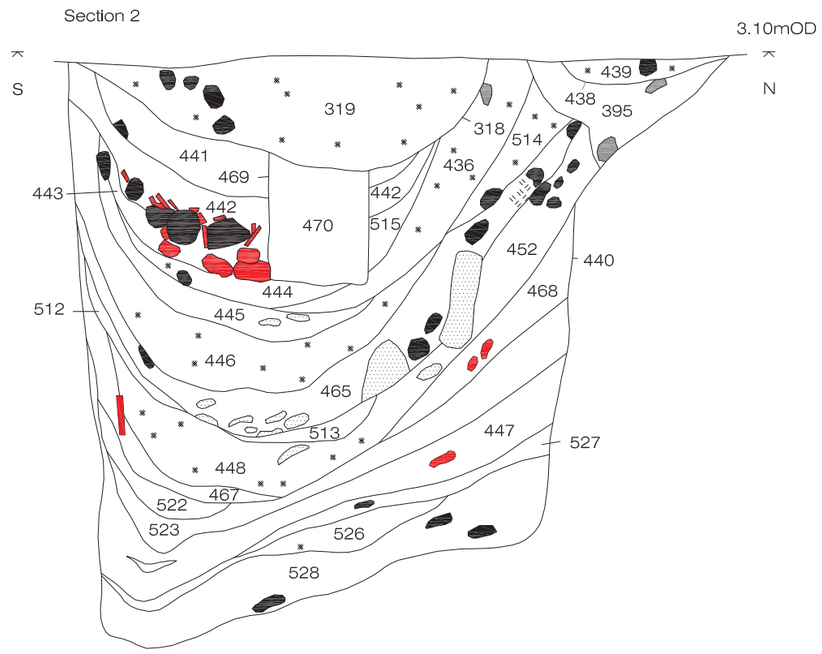

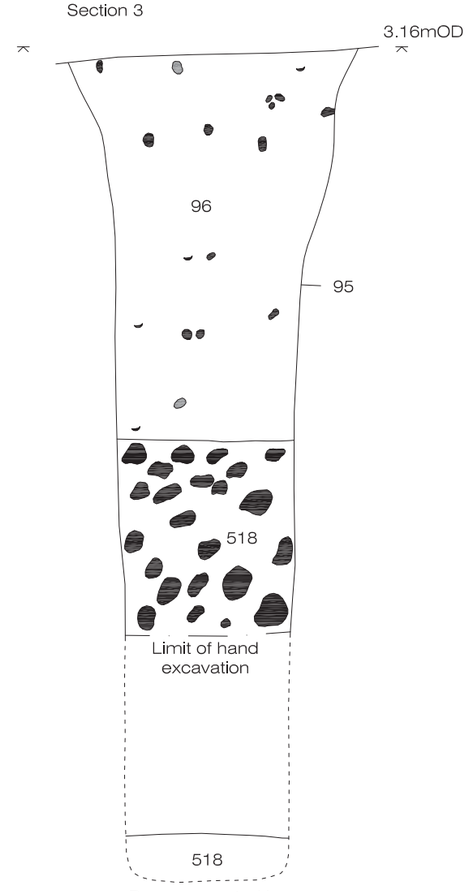

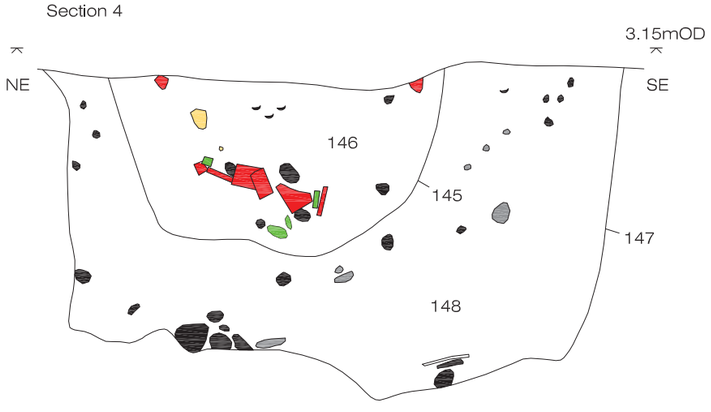

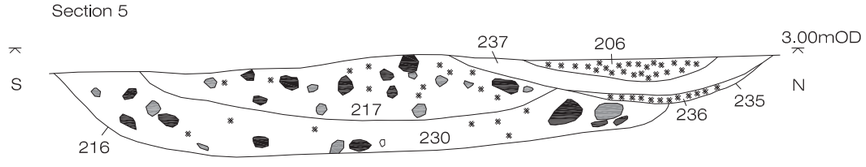

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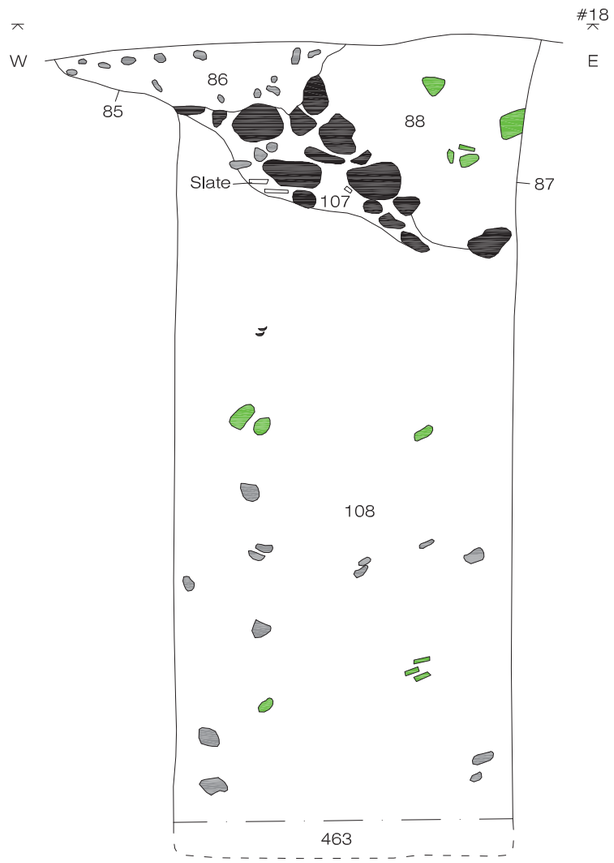
Section 6



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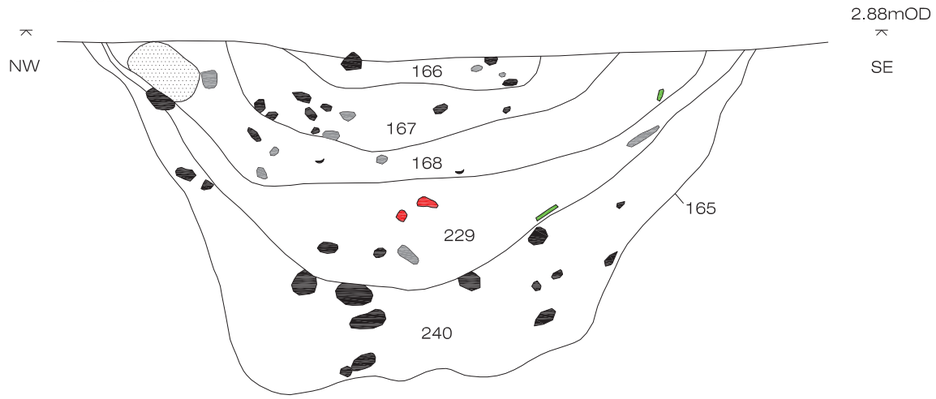

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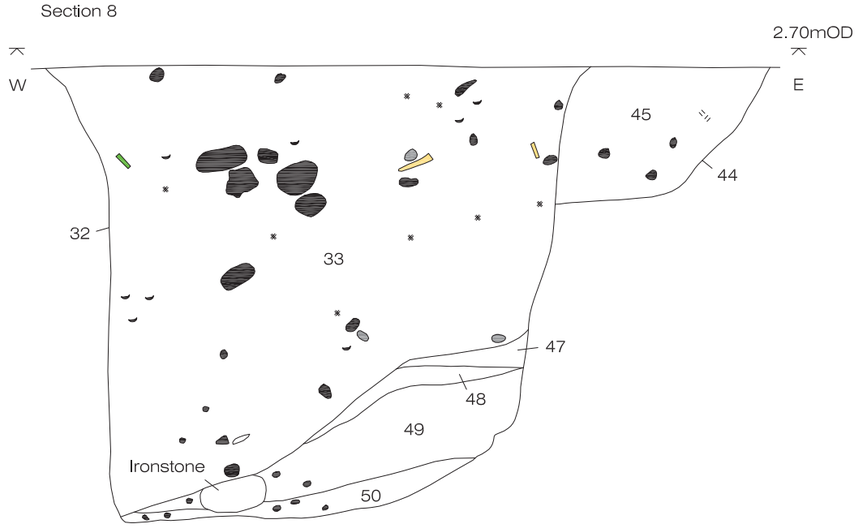

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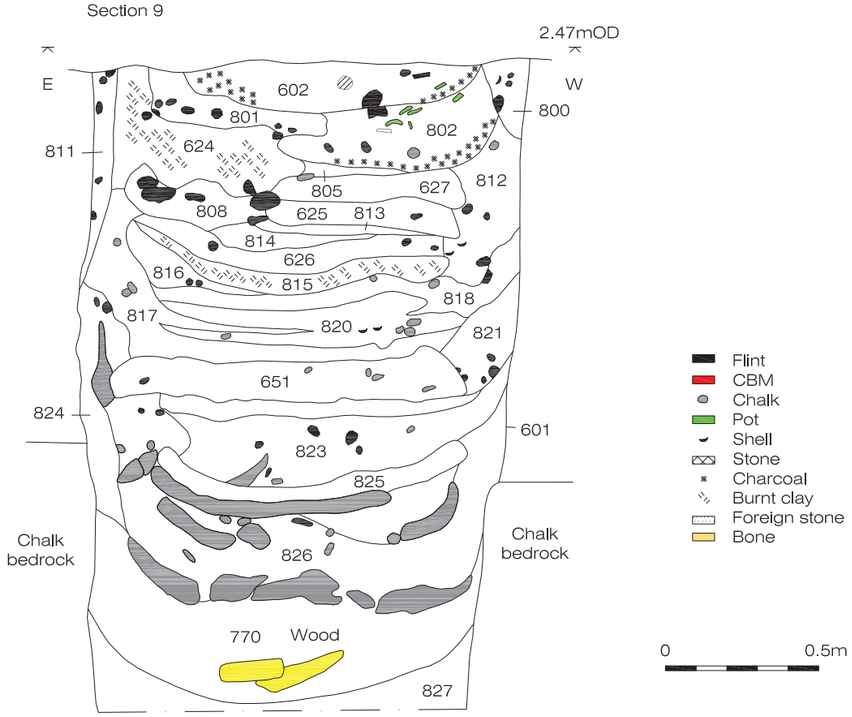

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