St Mary's No.5 Churchyard, Ewell

An Archival Report, Pre-Publication.

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1. Background

1.1 Site location and topography

The plot of land known as St Mary's No. 5 Churchyard ('the site') is situated in Ewell, Surrey, centred roughly on NGR TQ 2218 6293 (see fig. 1). In extent it is about 100 m SW–NE by 70 m NW-SE, and is bounded by St Mary's No. 4 Churchyard (NW), the gardens of houses on Church Street (SW) and on Ewell By-pass (NE), and by Ewell Vicarage and its gardens (SE). Its underlying geology appears to vary from Reading Beds (sand/clay) in the north to Thanet Beds (sand) in the south. The land rises very gently from west to east; the River Hogsmill flows north from a spring which lies about 250 m WSW of the site. The present condition of the site is of rough grassland. Evidence from No. 4 Churchyard (Pemberton 1973, 5) suggests that the depth of topsoil is likely to be about 0.5 m, but archaeological deposits are not thought likely to have been damaged by recent ploughing or building work. They are very unlikely to have been waterlogged.

1.2 Previous work in the area
1.2.1 Ewell in general

Prehistoric periods
Finds of many periods have been made in Ewell, for example:
palaeolithic flints (Wymer 1987, 26),
mesolithic flints (Wymer 1977, 273–4),
late neolithic/early bronze age beaker and flint arrowhead (Orton 1997a, 94 and 107),
bronze age pottery (Needham 1987, 109),
late bronze age pottery (e.g. Orton 1997a, 94),
iron age: iron-working site (Lowther 1949a), possible burial (Orton 1997a, 95), other pottery (Lowther 1949b).

Little is known of the nature of settlement or other activity in any of these periods in Ewell. The area is well situated for prehistoric settlement, being located around a spring and with easy access to a range of topographical and geological zones. Further evidence for activity in any of these periods could be expected anywhere in the area.

Roman period
There have been several summaries of our knowledge of Roman Ewell; the most recent is by Orton (1997b). The current view of Roman Ewell is of a rather amorphous settlement spread out for about 1 km along the line of the main Roman road (Stane Street), although the exact route of Stane Street through the centre of the area is not yet well defined. Despite much archaeological effort over the past 150 years, the function of the settlement is unclear; a small-scale market centre seems most likely to be the main function, although there may also be a religious element (Orton 1997a, 120; Bird 2002).

Saxon and medieval periods
The evidence for activity in Ewell in the Saxon period consists only of burials (Lowther 1935; 1963). No trace of an associated settlement has yet been found, although the existence of one is very likely.

The Domesday Book entry suggests the presence of a small village, but the distribution of the recorded population is not known. Any nucleated settlement seems likely to have been focused around the High Street/West Street – Church Street cross-roads.

1.2.2 The site and its immediate vicinity

There have been several discoveries of Roman remains in and around the site (Abdy and Bierton 1997). The focus of investigation has been Stane Street, which has been located near the

western corner of the site (TQ 2215 6294; Abdy and Bierton 1997, no. 69; Pemberton 1987), as well as in No. 4 Churchyard to the north (TQ 2220 6300; Abdy and Bierton 1997, nos 71 and 72; Pemberton 1973; 1987), and in Church Street to the west (TQ 2214 6290; Abdy and Bierton no. 68). All these locations are also shown on the site location plan (fig. 1), together with that of an excavation by Temple in 1978 (Pemberton *pers.comm.* 2000). Work was also undertaken by Ewell Technical College in the 1970s, but its exact location is not known.

The route of Stane Street to the south-west of the observation in Church Street is unknown. Traces of buildings were found next to the road in both No. 4 and No. 5 Churchyards, as well as at Holman Court (TQ 2214 6281, Abdy and Bierton no. 60) to the south of the western corner of the site. Further Roman artefacts have been found at various locations in Church Street (TQ 2211 6288, 2213 6283, 2213 6286, 2213 6288; Abdy and Bierton nos 66, 61, 63 and 67), and at Woodgate to the north of No. 4 Churchyard (TQ 2215 6305; Abdy and Bierton no. 73).

The evidence appears to support the idea of 'ribbon development' along Stane Street, but since the main research aim of work in this area has been to identify the route of Stane Street, it is not surprising that the structures located lie near its supposed route. In particular, the area to the south-east of the known route and its supposed continuation has not been investigated beyond a narrow strip adjacent to the road.

A resistivity survey of the entire site was undertaken by Dyer in 1996. It showed the known route of Stane Street through the north-west part of the site, but no other obvious anomalies.

1.3 Reasons for the work and aims of the excavation

The site has at present no formal use, but is designated as a possible future extension to the No. 4 Churchyard; it is owned by the Church of England but is not as yet consecrated. Decisions must be made about its future use, the main one being whether or not to consecrate and use for burial. Such a decision must be made in the next few years, before No. 4 Churchyard becomes full. One input into these decisions should be reliable information about the nature, extent and condition of any archaeological remains that may be present in the site. The aims of the project were as set out in the Project Design (Orton 2000), and are repeated below.

Research aims
There seemed little point in further investigating Stane Street, which had already been studied on several occasions. The interest in the site lay in the opportunity to examine the intensity of Roman activity along the roadside, particularly the rate at which the intensity and nature of such activity changed away from the road. This information would help to clarify the nature of the Roman settlement (see above), and might also shed light on the exploitation of London's rural hinterland in the Roman period.

As the site appeared to lie on the northern edge of the settlement (the northernmost recorded building is at TQ 2220 6303, see Pemberton 1973), the possibility of Roman period burials could not be ruled out.

The possibility of locating remains of other periods should not be ignored. Although the main emphasis of archaeological research in Ewell has been the Roman period, it is clear that there has been significant activity here since at least the mesolithic period.

The potential of the site for further research into the archaeology of any period would be assessed after the completion of the project.

Management aims
The management aims of the work were:
1. to inform any decisions that may be made about the future use of the site.
2. to contribute to broader studies of Roman Ewell as a whole.

3. to contribute to any plans for the management of archaeological remains in Ewell.

Other aims
The work was intended to provide fieldwork experience for students of UCL Institute of Archaeology, who had to complete 70 days' fieldwork in order to be awarded their degree. In particular, it was aimed at students living in south London or Surrey who wished to live at home while undertaking their fieldwork, e.g. for family reasons.

It was also intended to make the experience of archaeological fieldwork available to local residents, and in particular to members of the Nonsuch Antiquarian Society. Such experience would be under the supervision of staff and/or students of UCL IoA, and would require a definite time commitment.

1.4 Account of the excavation and post-excavation work

Following an invitation from the Rev. W.R. Hanford, Vicar of Ewell, to UCL Institute of Archaeology, the Project Design was submitted for his approval and that of the Parochial Church Council of St Mary's, Ewell, and of the Diocese of Guildford through the Faculty procedure.

The Project Design proposed investigation of the site by means of trial trenches, dug by hand. The principal trench would be laid out at right angles to Stane Street, from the point where it crosses the north-west edge of the site, and extending to the south-east edge of the site (a distance of some 75 m); it was to have a width of 2 m. It should be noted that the present north-west edge of the site is not that shown on the current (2000) Ordnance Survey Superplan (1:1250) of the area, as the boundary between Churchyards No. 4 and No. 5 was moved about 10 m to the south-south-east in the 1980s.

If time and resources permitted, test pits (2 m by 2 m) would be dug in a regular grid on either side of the principal trench. The technique would be to remove the topsoil (recording any finds to within 1 m squares), and delimit and record any archaeological features revealed. It was not intended to excavate into any such features, except as was necessary to clarify their nature and extent.

All artefacts observed were to be recorded and retained, but no special retrieval methods (e.g. sieving) were to be employed. Initial post-excavation work would be undertaken on site, and subsequently by students of UCL IoA, as part of their fieldwork requirement. Synthesis and reporting were the responsibility of the project director.

Excavations lasted for three weeks from 19 June 2000, following removal of the turf by machine in the previous week. The site was given the code ECY00 (i.e. Ewell Church Yard 2000). The following amendments to the Project Design were made:

1. width of principal trench was reduced from 2 m to 1 m (on advice from the Surrey County Archaeologist about likely work rates).
2. the principal trench was moved slightly to the south to avoid a very large rubbish heap; this and large bushes along the south-east edge of the site had the effect of reducing the available length to 67.7 m.
3. initially, the first 25 m (from the west) of the principal trench were excavated. This was later extended to 30 m, and further sections were excavated at 40–45 m and 60–65 m from the western end of the trench.

The locations of the areas excavated are shown on fig. 1. An artificial site grid was defined in which the trench ran east-west. All measurements were taken from the south-west corner of the trench, which was defined as being 200 m east and 100 m north of an arbitrary false datum point. Successive metre squares along the trench were thus numbered 200/100, 201/100, etc. The purposes of this device were (a) to make it possible to excavate south of the trench without requiring negative grid references, and (b) to make it impossible to mis-record by transposing the

elements of a square's reference number. Contexts were numbered sequentially starting from 100; the number 99 was used as a reference for objects located on the spoil-heap (see below).

Levels were measured by reference to a site datum which was arbitrarily set at 100 m; this was found to be at 38.91 m above OD by reference to the bench-mark on the north-west corner of St Mary's Church.

Interim reports have been published in the Parish Magazine of St Mary's, Ewell, the *Nonsuch Antiquarian Society Newsletter* and the *Bulletin of Surrey Archaeological Society*.

1.5 Documentation

The documentation made on site comprised (a) the site notebook, including details of levels taken, (b) the stratigraphic file, which contained context description sheets and plans (at a scale of 1:10) of all features, and (c) the list of individual ('small') finds.

Post-excavation documentation included catalogues of various categories of find, in both paper and digital form (using Excel for pottery, glass and flint, and Access for the small finds and animal bone).

1.6 Location of archive and finds

All archaeological material excavated from the site is legally the property of the Church of England, as represented by the Vicar of Ewell. It is hoped that they will be deposited at Bourne Hall Museum, Ewell. The site archive will be deposited at the Bourne Hall Museum, with a copy at Guildford Museum (Surrey Archaeological Society).

1.7 Acknowledgements

Permission to excavate was granted by the Rev. W.R. Hanford, the (then) Vicar of Ewell, and the Parochial Church Council. Accommodation for storage and processing was kindly provided by Rob and Jane Pedlar, and members of the Nonsuch Antiquarian Society (now the Epsom and Ewell History and Archaeology Society), especially Charles Abdy and Peggy Bedwell, gave valuable support and background information. The site was excavated by students of UCL Institute of Archaeology and of Birkbeck College, together with members of the NAS and other local residents. Don Cooper acted as my assistant, managed the equipment, and undertook much of the post-excavation cataloguing. Valuable advice was given by Dr David Bird (then Principal Archaeologist of Surrey County Council) and members of his staff. Specialist reports were provided by Ernest Black (flue tiles), Diana Briscoe (stamped Saxon sherd), Kris Lockyear (coins) and Richard Macphail (soil samples). Post-excavation work was assisted by Deborah Trein and Elizabeth <who?>.

2. Site description

In this chapter, the following notation is employed: eastings are referred to by a distance followed by a /, e.g. 215.6/ for 215.6 m east of datum, and northings by a distance preceded by a /, e.g. /100.4 for 100.4 m north of datum. Points are referred to by a double reference, e.g. 215.6/100.4. Directions in this section refer to the site grid, i.e. 'north' is across the trench. Context numbers are indicated by < >.

Subsoil
The 'natural' subsoil was located at about 36.71 m at 200/, rising very gradually to 37.14 m at 230/ and 37.75 m above Ordnance Datum (aOD) at 265/ (a gradient of about 1 in 60). In the western part of the trench (from 200/ to 216/) it consisted of alternating bands of yellow sandy clay <109>, <131>, <124>, stiff yellow clay <114>, <123>, <120>, and greenish clay <122>, running approximately north-south across the trench (table 1). Test sections cut into these deposits suggested that the sandy clay filled hollows in the irregular surface of the yellow clay, for example <109> overlay <114> and appeared to be about 0.22 m deep. East of 216/ was sandy clay <128> until about 244/, gradually becoming more sandy and less clayey towards the east. From 244/ to the end of the trench at 265/ was a rough gingery sandy gravel <119> overlying a soft light grey-brown sand <133>. The whole pattern is interpreted as the interface between the Reading Beds to the west and the Thanet Beds to the east.

easting	*context*	*description*
200.0–201.0	109	yellow sandy clay
201.0–204.6	114	stiff yellow clay
204.6–210.1	131	orange/yellow/green sandy clay
210.1–213.0	123	stiff yellow clay
212.8–214.5	124	yellow sandy clay
214.0–216.0	120	stiff yellow clay
216.0–244.0	128	yellow sandy clay
244.0–265.0	119	rough gingery sandy gravel
244.0–265.0	133	soft light grey-brown sand

Table 1: subsoil layers

Phase 1
The earliest feature appeared to be <132>, a small cut into <131> revealed south of /100.46 when <112> (see below) was half-sectioned (fig. 2). Its width varied between 0.3 m and 0.4 m and it appeared to run approximately north–south between 207.9/ and 208.4/. It was about 0.1 m deep; its black fill contained many large flint pebbles (up to 0.13 m in length) and much charcoal in both small and large fragments. The only direct dating evidence was provided by two sherds of undiagnostic Roman pottery.

Above <132>, and above <131> on either side, was a compact layer of rounded flint pebbles <112> and <121>, extending from about 204.4/ to 209.4/ (fig. 3). Most of the pebbles were small (up to 30 or 40 mm in length), but some were larger, up to 0.1 or 0.12 m in length. The upper surface of the layer was at about 36.86 m aOD. As well as flint pebbles, it contained small amounts of chalk and tile, and about 50 sherds of pottery which suggested a late 1st to early 2nd century date.

This layer was partly overlain by a surface <117> consisting of squared chalk blocks, most about 60 mm in length but with some up to 0.12 m. It extended irregularly from 206.9/ to 208.2/ (fig. 3), and had a markedly level surface at about 36.92 m aOD. It appears to be contemporary with <112>. It may be that this is the surviving patch of a much larger chalk surface extending as far as the limits of <112/121>, which may have been a foundation for it.

To the west of <112> was a layer of yellow sandy clay with pebbles <115>, extending from 202.5/ to about 205.5/ (fig. 3). It apparently abutted <112>, and the stratigraphic relationship between the two is not clear. It contained four sherds of undiagnostic Roman pottery.

Phase 2
East of the features of Phase 1 was a group of features related to each other by their alignments and by their probable date. Cut into the clay of <123> was a long narrow feature <113>, extending from 210.8/ to 212.4/, aligned at about 20° clockwise to the line of the trench. It had a maximum width of about 0.30 m, and appeared to taper towards both ends (fig. 4). Its lower fill consisted of a mixture of chalk blocks and rounded flint pebbles with tile and pottery, above which was some 50 to 60 mm of black crumbly soil. The pottery included sherds of a rare glazed bowl of late 1st to early 2nd century date (fig 9), but more diagnostic in terms of dating was a rolled-rim bowl (RRB), probably of BB2 fabric, which is not likely to be earlier than *c.* AD 120 (see 3.1.1).

At right angles to <113> was a stony feature <110> lying across the trench between 214.5/ and 215.5/. It was at most 0.75 m wide, with a well-defined western edge and a less well defined eastern edge (fig. 4). The sixteen sherds of pottery found in this feature include rims of a Nene Valley colour-coated beaker and an Alice Holt rolled-rim dish (RRD), both likely to date to the mid- or late-2nd century. This may be the damaged remains of a wall. Associated with this feature, and abutting its eastern edge, was a circular cut feature <126> (fig. 4). It was between 0.3 and 0.35 m in diameter, and 0.22 m deep. The packing consisted mainly of rounded flint pebbles, but also included a large fragment of quernstone and nine sherds of pottery contemporary with that from <113> and <110>.

Further east, between 222/ and 224/, possibly extending to 225/, was a cut feature <130> in the southern part of the trench (fig. 5). It was cut into <128> from a height of about 37.21 m aOD, and varied in depth from about 0.2 to 0.3 m, with one area as deep as 0.47 m. The 21 sherds of pottery from its fill appear to give it a mid- to late-2nd century date.

East of this cut was a spread of material <129> between 225.0/ and 227.1/ (fig. 5), fairly dense in the north (upper surface between 37.22 m and 37.29 m aOD) but rather sparse in the south (upper surface between 37.15 m and 37.25 m aOD). The 22 sherds of pottery suggest a mid- to late-2nd century date.

Phase 3
Parallel to <110>, and just to its east, was a ditch <125> (fig. 6), between 215.6/ and 217.1/. It varied in width between 0.75 and 1.0 m, and had a maximum depth of 0.25 m. The ten sherds of pottery from its fill suggest a late 3rd or 4th-century date, but the ditch itself may be earlier.

This ditch cut a layer of brown sandy soil <118>, which overlay <128> and continued to the end of the trench at 230/. It was related to a series of dumps of building material (see below), most of which overlaid it but did not completely seal it. It contained about 60 sherds of pottery, ranging from 2nd-century to late 4th-century Tilford ware (TILF, see 3.1.1).

East of the ditch was feature <105>, which lay along the northern edge of the trench from 219.4/ to 219.8/, with its upper surface between 37.31 m and 37.33 m aOD. It comprised a single large contiguous area, at least 0.55 m north–south by 0.50 m east–west (but continuing into the baulk, see fig. 7), of what was initially thought to be wall plaster. It was lifted *en bloc* and dissected in the post-excavation process. This revealed that it had a smooth but irregular upper surface of a chalky earth with inclusions of chalk, backed by a dark brown 'earthy' soil with chalk lumps and charcoal flecks. It was later identified by soil micromorphology as a burnt area, probably a hearth (Macphail, 2001). As such, it is likely to have been *in situ*, and may define a floor level or exterior surface, of which only it survived, but which is possibly represented by the top of <118>.

Immediately east of the ditch, and both east and west of <105>, between 217.6/ and 222.9/, was a series of deposits of building material, <107>, <127>, <106>, <108>, comprising mixtures of daub fragments, mortar, small abraded chalk lumps and larger blocks, rounded flint pebbles and pieces of Roman roof tile and brick, in varying proportions. Although these contexts may be part of the same dumping episode, they are described individually below, from west to east.

The most westerly deposit <107> consisted of an area from 217.7/ to 218.4/ in the north of

the trench and a second from 218.4/ to 219.5/ in the south, as well as isolated flint and chalk blocks at 217.6/ (fig. 7). Its upper surface was between 37.29 m and 37.37 m aOD (north) and between 37.24 m and 37.34 m aOD (south). It consisted mainly of fragments of daub, with a few rounded flint pebbles, up to 0.16 m in length, and chalk blocks up to 0.17 by 0.12 m in size, but mostly much smaller.

The deposit <127> (fig. 8) lay beneath the south-eastern part of <107>, between 218.8/ and 219.5/, with its upper surface at between 37.09 m and 37.19 m aOD, suggesting that it is part of <107>. Its composition was rather different – mostly flint pebbles up to 0.2 m in length, with a few small chalk lumps (up to 60 mm) and very little tile or daub.

East of <105> was a cluster of five large fragments of tile, <106> (fig. 7), between 220.1/ and 220.3/, and with upper surfaces between 37.34 m and 37.36 m aOD. The largest was about 0.13 by 0.08 m.

Still further east was the largest of the dumps, <108>, between 220.3/ and 222.9/ in the northern part of the trench (fig. 7), with its upper surface between 37.25 m and 37.36 m aOD. Its main component was chalk, mostly in the form of small abraded lumps up to 60 mm in length, but also with a few larger squared blocks up to 0.13 m long. There were also several large pieces of daub (larger than in other deposits, the largest being 0.25 m long), and a few flint pebbles, most about 0.1 m long, but some up to 0.25 m. A few fragments of tile completed the composition.

These deposits are all at roughly the same level as the burnt patch <105>, suggesting that there may have been a floor, or at least a ground surface, at this level. The deposits could then be seen as either debris collapsed onto this surface, or as secondary material laid to consolidate the surface. The main dating evidence for them consists of 45 sherds of pottery from <108>. Most are of Roman date, the latest being an AH flanged bowl of the late 3rd or 4th century; there is also one sherd of a possibly Saxon sandy fabric and one sherd of 17th century Border ware. The latter are thought to be intrusive as the deposits were not sealed. There were also seven sherds of undiagnostic Roman pottery from <107>. There were no coins or other 'small finds'.

Phase 4

Above the Roman features of phases 1 to 3 were a series of soil layers interspersed with thin scatters of material of mixed date. The only exception was a small cut <116> into the north-east corner of <115> between 205.2/ and 205.7/ (fig. 3). It was very shallow and contained no finds.

Immediately above feature <113> (phase 2) and the surrounding clay, was a spread of small abraded chalk lumps and rounded flint pebbles <104>, lying between 208.2/ and 213.8/ with its upper surface rising slightly from 37.13 m in the west to 37.22 m aOD in the east. It contained 95 sherds of abraded Roman pottery of 1st to 4th century date, as well as abraded Roman tile, and one sherd of 17th-century Border ware. The only small find was an undated fragment of blue cullet glass (no. 28).

Above all the features, and running from end to end of the trench, was a deep layer of brown sandy loam <101> and <103>, separated between 200/ and 217.1/ by a thin gravel spread <102>, but elsewhere indistinguishable. This spread consisted mainly of rounded flint pebbles (up to 0.12 m in length) and squared flint blocks, together with fragments of tile, with pottery, glass, metal and bone finds. The angle of some of the tile fragments suggested dumping. The upper surface of <102> rose from about 37.23 m at the eastern end to 37.54 m aOD at 217.1/, while the surface of <101> rose from 37.38 m at the eastern end to 37.89 m aOD at 230/ and 38.15 m aOD at 265/. Allowing for the turf <100> removed by the mechanical digger, the ground level rose from 37.45 m to 38.00 m at 230/, to 38.25 m aOD at 265/. Thus the total depth of 'topsoil' varied from 0.74 m at 200/ to 0.86 m at 230/ to 0.50 m at 265/. Except at the extreme eastern end of the trench, this was well in excess of the 0.5 m initially expected (see 1.1). A thin layer of gravel <111> was found above <101> between 264/ and 265/.

This thick band of soil, together with the associated spreads <102> and <104> and the material detected from the spoil-heap <99> (which would have derived from these contexts) contained the bulk of finds from the trench: 89% of the pottery by sherd count (87% by eves), 88% of the animal bone by count (77% by weight), and all but five of the 75 'small finds' (including all 30 coins). Although the bulk of the dateable material is of Roman date, 40 sherds (1.7%) are medieval and 102 (4.4%) are post-medieval. One of the 30 coins is 17th-century in date and the rest are Roman (see 3.4.1). There is thus relatively little later material, but not so little that any undated finds can unequivocally be called 'Roman'.

unphased
The most enigmatic feature, which could not be related to the rest of the site, was a burial, <133>, located between 244/ and 245/ and at its highest 37.20 m aOD, about 0.8 m below the top of <101> here, so about 0.9 m below the ground surface. Only the skull, long bones and a small part of the pelvis survived, and in poor condition; the skull has unfortunately been damaged and removed in excavation, and the legs below mid-thigh remained concealed in the eastern baulk at 245/ (see fig. 9). The grave appears to have been cut through the rough gingery sandy gravel <119> into the soft light grey-brown sand <133>, although no trace of a cut could be detected and the immediate fill appeared to be the same as the soil through which it had been cut. The skeleton was carefully laid out along the axis of the trench, i.e. at right angles to Stane Street. The left arm was extended beside the body, while the right was bent at the elbow, with the forearm crossing the body at waist height. Traces of a large iron object, perhaps 0.2 m long, were visible below the left elbow, but consisted only of a rusty stain in the surrounding sand. Because of its alignment to Stane Street, the burial is thought to be probably of Roman date.

Because of the fragile state of the bones, the incomplete nature of the burial and the fact that it was found only two days before the end of the excavation, the skeleton was not lifted, but after a visit by a representative of the Epsom Coroner, reburied *in situ* together with the fragments of the skull, which were placed in a finds tray to aid identification should further excavation take place.

Fig. 2: plan of early phase 1 feature.

Fig. 3: plan of phase 1 features.

Fig. 4: plan of phase 2 features west of 220/.

Fig. 5: plan of phase 2 features east of 220/.

Fig. 6: plan of phase 3 ditch.

Fig. 7: plan of other phase 3 features.

Fig. 8: plan of phase 3 features in southern side of trench.

Fig. 9: plan of the burial found between 244/ and 245/.

Fig. 10: sherds of Roman glazed bowl from <113>.

Fig. 11: small sherd of stamped Saxon pottery from <101>.

3. The finds

All finds were recorded by context, and for extensive contexts, by metre square. This will enable the fall-off rate of activity from Stane Street to be studied (see chapter 4).

3.1 pottery

In the pottery catalogue all pottery is classified by fabric and, where possible, by form. For comparison with earlier work in Ewell (e.g. Orton 1997a) the same fabric codes are used. They are based on the Museum of London Department of Urban Archaeology (DUA) fabric codes (Davies *et al* 1994, 233), with some simplification where difficulties were experienced in distinguishing between types. Some codes were slightly changed and a few new ones were created. To facilitate broader comparisons, codes from the National Roman Fabric Reference Collection (NRFRC) (Tomber and Dore 1998) are also given; further references can also be found there.

For forms, by contrast, an independent system was set up (0rton 1997a, 104), using broad form types for as much of the pottery as possible.

The amount of pottery found, divided by fabric and context, is shown in Tables 2 (eves) and 3 (sherds). The amounts and proportions by broad periods are given below:

period	quantity (eves)	percent	quantity (sherds)	percent	sherds/eve
prehistoric	0.04	0.2	12	0.5	300
Roman	20.54	95.6	2484	94.0	120
Saxon	0	0	3	0.1	na
medieval	0.11	0.5	40	1.5	380
post-medieval	0.78	3.6	103	3.9	130
total	21.47	100	2642	100	120

Thus, about 95% of the pottery is of the Roman period, and the Roman pottery is considerably less broken than the prehistoric, Saxon or medieval material, and slightly less broken than the post-medieval material. The fabric type descriptions (below) show the proportions of the Roman types as percentages of all Roman fabrics; this analysis cannot be done for other periods.

3.1.1 Fabric types

The names, codes and definitions of the types used are given below in alphabetical order. Where the code differs from that in use at the DUA, the latter is given in [ ]; where there is no corresponding DUA code a [*] is shown. Where appropriate, NRFRC codes are in { }. The descriptions given here are abbreviated, and should be seen as references to standard descriptions rather than in their own right.

Prehistoric

BA = Bronze Age: thick but small abraded sherds with flint tempering are thought to be of Bronze Age date.

FLIN = flint-tempered ware: a very coarse fabric characterised by its abundant flint inclusions.

GROG = mainly a Roman fabric (q.v.), some may be prehistoric.

Roman period (i) fine wares

BLEZ = black Lezoux ware [CGBL]: a black colour-coated ware from Central Gaul. The only form present is BEA. {CNG BS} Less than 0.1% of all Roman pottery.

COLC = Colchester colour-coated ware: a fine colour-coated ware with a red fabric and brown surfaces. Produced throughout the Roman period, but most common in the 2nd century (Tyers 1996, 167). The only form present is BEA. {COL CC II} 0.3% of all Roman pottery.

FG = 'fine grey' ware [*]: a distinctive smooth light grey ware with no visible inclusions. Almost all examples seem to be closed forms (BEA or jars); there is one possible bowl. 1.4% of all Roman pottery.

FINE = 'other' fine wares: a rag-bag category of all fine wares that were not classified to other fabrics. They appear to be of closed forms, but in the absence of rims it is difficult to be specific. 0.5% of all Roman pottery.

FOX = 'fine oxidised' [*]: similar to FG but oxidised; possible just a variant of it. No forms can be identified. 0.1% of all Roman pottery.

GCC = general (i.e. unidentified) colour-coated ware [CC]: all colour-coated wares not otherwise identified. Almost all examples appear to be BEA; there is one possible bowl. 1.5% of all Roman pottery.

MICA = mica-dusted wares [includes LOMI = London mica-dusted ware]. Fine grey fabric with yellow-brown margins and surfaces (see Green 1980, 69). All examples appear to be from closed forms. 0.1% of all Roman pottery.

MOSL = moselkeramik: a fine black colour-coated ware from the Trier area. The fabric is hard and shows dark grey and red layers; it is dated to AD 150-275. The only example is of unidentified form. {MOS BS} Less than 0.1% of all Roman pottery.

NVCC = Nene Valley colour-coated ware: similar to Cologne colour-coated ware, with which it can easily be confused. All examples appear to be BEA. {LNV CC} 1.0% of all Roman pottery.

OXRC = Oxfordshire (red) colour-coated ware: a fine reddish-brown fabric, often with a grey core, and red or brownish coat. Dated late 3rd or 4th century. The only identifiable forms are MORT and bowl, but it is possible that some of the unidentified sherds are from closed forms. {OXF RS} 1.2% of all Roman pottery.

RBGL = Roman glazed ware [SEGL]: smooth fabric with applied white slip decoration and green/orange glaze. Late 1st or early 2nd century (Tyers 1996, 178). The only form is a hemispherical bowl (fig 10). {SOB GL} 0.3% of all Roman pottery.

SDG: smooth dark grey ware [*]: a very smooth dark grey to black fabric with a distinctive conchoidal fracture. Probably the fine component of the north Kent ware, sometimes known as Upchurch ware (Monaghan 1987, 173). The only example is of unidentified form. {UPC FR ?} Less than 0.1% of all Roman pottery.

SWCG = Central Gaulish samian ware: samian from the Central Gaulish kilns, probably of 2nd century date.

SWEG = East Gaulish samian ware: samian from the East Gaulish kilns, probably of mid 2nd to mid 3rd century date.

SWSG = South Gaulish samian ware: samian from the South Gaulish kilns, probably 1st century in date.

The only samian forms identified were single examples of Drag. 33 and Drag. 37. There were also body sherds of MORT, and sherds of bowl, cup and dish forms. Total of all samian ware is

about 2.2% of all Roman pottery; the total of fine wares is about 8.2%.

Roman period (ii) amphorae

DR20 = Dressel 20 amphorae: globular amphorae from southern Spain, thought to have originally contained olive oil. They are very common and the form is well known. {BAT AM 1} 0.6% of all Roman pottery.

AMPH = all other amphora fabrics. 0.2% of all Roman pottery.

Roman period (iii) mortaria

OXWW = Oxfordshire white ware [OXMO]: an off-white sandy fabric with distinctive trituration grits of red, grey and clear rounded quartzite. {OXF WH} 0.5% of all Roman pottery.
Other mortaria are catalogued under their respective fabrics, e.g. VRW, SWEG.

Roman period (iv) coarse wares (reduced)

AH = Alice Holt ware [AHSU + AHFA]: thoroughly described by Lyne and Jefferies (1979). The dating was revised by Millett (1979) on the basis of seriation. Produced nearly 50 km west-south-west of Ewell from the 1st to 4th centuries. {ALH RE} 48.2% of all Roman pottery.
The main forms present are:
(a) dishes and bowls: FB (16%); PB/PD (7%), RRB/RRD (4%); REB (3%); ATB (1%); other (3%).
(b) jars: ERJ (17%); BBJ (10%); FRJ (7%); BRJ (6%); LSJ (6%); HRJ (4%); other (9%).
(c) other: BEA (3%); FL (2%); LID (1%); MUG (1%).

BB2 = black burnished ware type 2: defined by Farrar (1973) and further described by Green (1980). According to Williams (1977) it was produced at sites in Kent, as well as at Colchester. The ware is generally dated to AD 120 – early 3rd century. The only identified form is the RRB. 1.3% of all Roman pottery.

GROG = grog-tempered wares: these are generally early in the Roman period (late 1st century, e.g. HWB (Brown and Sheldon 1974, 224)) or late (4th century). Large closed forms predominate; the only identifiable rims are ERJ. There is also one PD rim. 1.3% of all Roman pottery.

HIGH = Highgate ware type C [HWC]: the standard sandy Highgate ware, it seems to be at the limit of its distribution here. The only form present appears to be BEA, some with white slip and/or barbotine decoration. {HGW RE C} 0.4% of all Roman pottery.

SAND = 'other' grey sandy wares: this is a rag-bag heading not easily categorised. They date from all parts of the Roman period, but this reflects a number of probably short-lived sources rather than a single continuous tradition. 22.2% of all Roman pottery.
The main forms present are:
(a) dishes and bowls: PB/PD (7%), FB (6%); RRB (5%); other (5%).
(b) jars: ECJ/ERJ (25%); BBJ (6%); BRJ (3%); LSJ (1%); FRJ (1%); other (26%).
(c) other: BEA (7%); FL (5%); LID (1%); unidentified (4%).

SHEL = coarse shell-tempered wares: these appear to be mainly early Roman in date, and may include North Kent Shelly Ware [NKSH]. They are tempered with sand as well as coarse shell. The only identifiable forms are BRJ and PB. 0.5% of all Roman pottery.

VCS = very coarse-sandy ware [*]: miscellaneous sherds of large vessels, characterised only by the coarse nature of their inclusions. Large closed forms predominate; the only identifiable rim is BRJ. 0.6% of all Roman pottery.

Roman period (v) coarse wares (oxidised)

HOO = Hoo-type ware: a red ware usually with a white slip, though to be produced in north Kent in the 1st and 2nd centuries (Monaghan 1987, 173). All examples appear to be from FL. 0.2% of all Roman pottery.

OXID = 'other' oxidised wares: the oxidised counterpart to the SAND category, and a similar rag-bag. 11.1% of all Roman pottery.
(a) dishes and bowls: FB (2%); RRB (2%); other (7%).
(b) jars: ERJ (19%); HRJ (11%); BBJ (7%); FRJ (5%); BRJ (3%); LSJ (1%); other (9%).
(c) other: BEA (15%); MORT (1%); FL (1%); LID (1%); unidentified (15%).

TILF = Tilford ware, aka Portchester 'D' ware [PORD]: a red or yellowish sandy fabric made in the same general area as AH. It was first identified at Portchester (Fulford 1975), but has since been found elsewhere, e.g. London. It is diagnostically late, e.g. AD 350+ in London. All are from closed forms; the only identifiable rims are ERJ and HRJ. {OVW WH} 1.8% of all Roman pottery.

VRR = Verulamium region red ware [VRR + VCWS]: a red/grey sandy fabric with white slip, usually dated to the 1st and 2nd centuries by analogy to VRW, and once known as Staines-London ware (Green 1980, 60) (SLWS). All examples appear to be from FL. 0.1% of all Roman pottery.

VRW = Verulamium region white ware: an off-white or buff sandy fabric with a distinctive fracture, dated to the 1st or 2nd century. Most examples appear to be from FL; there is also one ERJ and one MORT. {VER WH} 1.8% of all Roman pottery.

(vi) Saxon fabrics

CHAF = Saxon chaff-tempered ware: a dark hand-made fabric, probably middle Saxon in date.

There is also one sherd of SAND which is of Saxon date and is stamped (fig. 11), and one similar but unstamped sherd.

(vii) medieval fabrics

CHEA = Cheam white ware: forms cannot be identified.

EARL = Earlswood ware: only small body sherds of decorated jugs are present.

KING = Kingston ware: a late 13th–14th century 'white' ware (Pearce and Vince 1988). Sherds from jugs, bowls and a possible cooking-pot are present.

LOND = London ware: a wheel-thrown sandy ware, mainly of the 13th century but also produced earlier and later (Pearce *et al* 1985). Sherds are all from jugs.

MCS = medieval coarse sandy ware: one sherd from a cooking-pot.

(viii) post-medieval fabrics

BORD = border ware (Pearce 1992): divided into BORDG (green-glazed) and BORDY (yellow-glazed). Forms present are bowls and cooking-pots.

CHPO = Chinese porcelain: imported, mainly in the 18th century. Forms cannot be identified.

FREC = Frechen stoneware bottles: imported from Germany in the late 16th or 17th century.

GUYS = Guys ware: red or brown earthenwares with extensive zones of white slip, made in the

London area in the late 15th and 16th centuries (Orton 1988, 297). Only bowl sherds are present.

LONS = London stoneware: one sherd from a mug.

NOTS = Nottingham stoneware: one unidentified base sherd.

PMR = post-medieval red ware [PMCR + PMFR + RBOR]: glazed redwares of various sources. LSJ appear to predominate; there area also bowls and a mug.

RAER = Raeren stoneware: one sherd, probably from a mug.

STBU = Staffordshire butter-pot ware: self-explanatory, late 17th or 18th century.

STON = unidentified stoneware.

TGW = tin-glazed ware: probably produced in London, 17th to mid-18th century. The only identified sherds are from wall tiles.

TUDB = Tudor brown ware: one rim sherd, probably from a cooking-pot.

TUDG = Tudor green ware: fine white ware with glossy green glaze, 15th to 16th century. One unidentified body sherd.

3.1.2 Forms

A simple division into broad groups of forms, based on the ratio of height to diameter (complete profiles) and the apparent open or closed nature of the pottery, was adopted as follows:
B = bowl; BEA = beaker; D = dish; J = jar; LID = lid.
In addition, specifically functional forms were recognised: AMPH = amphora; CUP = cup; FL = flagon; MORT = mortarium.
It was found that B, D and J had to be qualified by extra codes, viz.:

FD = flanged dish,	BBJ = jars in the 'BB1' style,
PD = plain-rimmed dish,	BRJ = bead-rimmed jars,
RRD = rolled rim dish,	ECJ = everted and cordoned jars,
ATB = 'atrebatic' bowl,	ERJ = everted-rimmed jars,
DB = deep bowl,	FCJ = flat-rimmed, cordoned jars,
FB = flanged bowl,	FRJ = flat-rimmed jars,
PB = plain-rimmed bowl,	HRJ = hook-rimmed jars,
REB = reeded-rim bowl	LSJ = large storage jars,
UCB = unclassified (i.e. 'other') bowl.	UCJ = unclassified (i.e. 'other') jar.

Well-known form typologies have also been used where appropriate (e.g. Dragendorff, Ludowici, Curle, Déchelette, Walters).

3.1.3 Decoration

Codes for decoration are based on a combination of
(i) method of application (A = applied; B = burnished; C = combed; G = grooved) and
(ii) pattern (A = arcs or arcading; B = band; D = diagonal line(s); H = herringbone; L = lattice; P = 'other' pattern; S = 'scribble'; SL = straight line(s); V = vertical line(s); W = wavy line(s); Z = zone).
Examples are: BB = burnished band; CL = combed lattice; GSL = grooved straight line(s).
Not every possible combination actually occurred.
Other codes, which do not fit this system, are: COR = cordon; MCR = multiple cordons; ROU = rouletting; RUS = rustication, SL = slashed; STC = stabbed with comb; WS = white slip.

Codes can be combined with a /, e.g. BZ/ROU = burnished zone and rouletting. When all else failed a * was entered and the decoration was described in free text under 'comments'.

3.2 Other ceramic artefacts

Excluding building materials (see 3.7), there were very few other ceramic artefacts. They comprise:

Spindle whorls
Fragment (20%) of disc in grey sandy fabric, probably AH. One face flat, other slightly domed. Central hole made before firing. Diameter 40 mm. Max thickness 7mm. Sf. no. 41. From <103>, 217/100.

Fragment (40%) of cut-down base of jar or beaker in grey sandy fabric, probably AH. Central hole drilled. Diameter 40–45 mm. Max thickness 8 mm. Sf. no. 51. From <103>, 213/100.

Weights?
Irregular fragment of badly wedged fired clay, with impression of stick *c.* 15 mm in diameter. No other finished surfaces. Max dimension 45mm. Similar to fragments from the King William IV excavation (Orton 1997, 104). Sf. no. 75. From <103>, 211/100.

Fragment of badly wedged fired clay with apparently two finished surfaces at about 60° to each other; one appears to have been laid on a flat surface while the other may be hand-finished. Max dimension *c.* 60 mm.

Clay tobacco pipe
Stem fragments of clay tobacco pipes were found in <101>, <102> and <103>. No bowls were found, but an 18th-century foot marked IG was found in <101>, 222/100.

3.3 Glass

There were sixteen fragments of glass, from <101> (7), <102> (4), <103> (4) and <104> (1). Five are from wine bottles of 18th century or later date, and four are bluish fragments, probably of window glass. There is a small piece of blue cullet from <104> (sf. no. 28). The rest are fragments of vessel glass of unknown date (including sf. nos 5, 6, 64).

3.4 Metal

3.4.1 Coins
Kris Lockyear and Adrian Popescu

Twenty-eight objects where submitted for examination. 26 were Roman coins; one was a coin of Charles I and the remaining object a lead weight. Of the 26 Roman coins, 25 were identifiable to the level of Richard Reece's 21 periods (see, e.g., Reece 1987). The catalogue is presented below in date order.

Context	*Easting*	*SF no.*	*description*	*date*
101	263.3	26	*dupondius* or *as* of Vespasian or Titus, otherwise illegible	AD 69–81
99	200	23	*as*, RIC 2, Hadrian 617, minted in Rome	AD 121–122
103	218.8	8	radiate, Claudius II Gothicus. Cunetio 2019, Issue 1	AD 268–
103	217.8	10	radiate, Victorinus or Tetricus I, rev. Cunetio Fides I	AD 269–271/4
99	210	14	radiate copy, rev. Cunetio Victoria 3A	prob AD 271/4+
103	226.8	50	radiate copy of Tetricus I, rev. Cunetio Pax 1b	prob AD 271/4+

99	208	34	radiate copy of deified Claudius II Gothicus, rev. Cunetio Consecratio Eagle 2	prob AD 271/4+
99	244	36	AE radiate copy, otherwise illegible	prob AD 271/4+
99	210	15	radiate copy, otherwise illegible	prob AD 271/4+
99	225	30	AE RIC 6 London 264, Constantine I	AD 312–313
103	223.5	24	AE Constantinopolis, copy of RIC 7 Lyons 241	AD 300–331+
99	218	20	AE Constantinopolis, copy of RIC 7 Lyons 241	AD 300–331+
99	226	49	AE Constantinopolis, copy of RIC 7 Lyons 256	AD 332+
99	242	44	Gloria Exercitus two standards, RIC7 Arles 365	AD 335–341
103	220.8	4	copy of RIC 8 Arles 182, Decentius; mint mark C/IS//PAR	AD 351+
99	208	13	AE4 copy of *Fel Temp Reparatio* Falling Horseman 3, Constantius II	AD 353/4+
99	218	18	AE4 copy *of Fel Temp Reparatio* Falling Horseman 3 or 4,otherwise illegible	AD 353/4+
99	216	19	AE4 copy of *Fel Temp Reparatio* Falling Horseman 3, Constantius II. Half coin, perhaps broken	AD 353/4+
99	209	33	AE3 copy of *Fel Temp Reparatio* Falling Horseman 3, Constantius II with pearl diadem	AD 353/4+
99	243	35	AE4 copy of *Fel Temp Reparatio* Falling Horseman 3, Constantius II	AD 353/4+
99	244	37	AE4 copy of *Fel Temp Reparatio* Falling Horseman 3, Constantius II. NB cast copy as shown by surviving flange	AD 353/4+
99	206	43	AE4 copy of *Fel Temp Reparatio* Falling Horseman 3, Constantius II	AD 353/4+
103	209.7	11	Gloria Romanorum, as RIC 9 (mint illegible), Valens	AD 364–378
99	213	17	Gloria Romanorum, RIC 9 Lyons 20a, Valentinian I	AD 367–375
99	203	31	Gloria Novi Saecvli, RIC 9 Arles 15, Gratian	AD 367–375
99	203	47	Third or fourth century, accretion prevents identification	
101	262	27	Charles I Rose farthing	AD 1636–1644

Notes
RIC = Roman Imperial Coinage volumes 1–10, London 1923 to 1994.
Cunetio =Besly and Bland 1983.

Discussion
There is no obvious correlation between date and easting (i.e. distance from Stane Street), though it is curious to note that the earliest coin <26> is furthest east, and the latest, <11>, <17> and <31> are in the western end of the trench, closest to Stane Street. In view of the small numbers of coins, little weight should be placed on these observations.

This assemblage can be compared to the broader assemblage from Ewell as a whole published by Abdy and Bierton (1997, 140). The following table compares the distributions of the two assemblages across Reece's 'issue periods' (Reece 1987).

Reece period	*date*	*AB count*	*AB %*	*ECY count*	*ECY %*
1	to AD 41	5	3.4	-	-
2	41–54	2	1.4	-	-
3	54–68	1	0.7	-	-
4	69–96	17	11.7	1	4.0
5	96–117	5	3.4	-	-
6	117–138	5	3.4	1	4.0
7	138–161	4	2.8	-	-
8	161–180	2	1.4	-	-
9	180–192	-	-	-	-
10	192–222	3	2.1	-	-

11	222–238	1	0.7	-	-
12	238–259	1	0.7	-	-
13	259–275	32	22.1	2	8.0
14	275–294	10	6.9	5	20.0
15	294–317	4	2.8	1	4.0
16	317–330	18	12.4	-	-
17	330–348	10	6.9	4	16.0
18	348–364	5	3.4	8	32.0
19	364–378	10	6.9	3	12.0
20	378–388	3	2.1	-	-
21	388–402	7	4.8	-	-
Total		*145*		*25*	

There is a clear mismatch between the two assemblages, with only 16% of the ECY assemblage but over 50% of the Ewell assemblage dating to before AD 275. However, it would be unwise to interpret these figures uncritically, because of the different circumstances of retrieval. Most of the ECY assemblage was found by metal-detecting (which appears not to have been used in previous work) and comprises small *nummi* coins which could easily have been missed in earlier work.

Although with only 25 coins it would obviously be foolhardy to develop complex interpretations of this assemblage, it is none-the-less necessary to place this group into a wider setting. A wide variety of methods have been developed over the last 40 years by Casey, Reece, myself and others, all of which take as a starting point the conversion of the full list to a series of 'issue periods' (Reece 1987). In this case the periods used by Reece have been adopted due to the availability of comparative data, especially from southern England.

Fig. 12 is a simple bar chart of this data converted into permilles (‰). The graph clearly shows a typical Romano-British loss pattern with low levels of coin loss up to period 12, high loss of low value radiate coinage in periods 13 –14, lower loss in periods 15–16, and high loss in the mid-4th century, particularly in period 18, the *Fel temp reparatio* coinage and its copies.

Reece (1974, 1993) further grouped his periods into four phases: A (1–12), B (13-14), C (15–16) and D (17–21). He found that by plotting phases B against D patterning by site type could be discerned. For example, towns tended to have equal amounts of B to D, whereas rural sites and especially temples tended to have far higher quantities of phase D coinage. Fig. 13 plots the B:D figures for the 140 sites published by Reece with the addition of Ewell. Although there is no clear division between urban and rural sites on this graph, there is a trend for civitas capitals to be to the lower right hand side of the graph and rural sites to be to the upper left. The data for Ewell is in a relatively central part of the graph along with many civitas capitals. The site list appears, therefore, to fit nicely into the main run of Romano-British coin lists and is particularly similar to urban sites.

Recently, more detailed work on site lists, particularly from the Portable Antiquity Scheme data and a larger selection excavated assemblages by Walton (2011) has shown that more detailed regional and period patterns exist but as yet there is insufficient properly published data from London to allow this type of detailed analysis.

3.4.2 Bronze/copper alloy

There were seven objects, all from the topsoil <99> to <103>. Those that can be recognised appear to be modern.

3.4.3 Iron

There were a total of 377 objects, of which all except three were from the topsoil contexts. The

exceptions were three nails from <118>. The most common type was nails (264), followed by studs from boots or sandals (54). There were also 16 fragments of knife blades, and possible brooches (2), buckles (2), axe-head (1) and razor (1). Thirty-seven fragments could not be identified.

3.4.4 Lead

There were 19 pieces of lead, all from the topsoil layers, none of which could be identified.

3.5 Bone artefacts

There were no bone artefacts as such, but a few fragments suggestive of bone-working:
small fragment, broken at both ends, trapezoidal cross-section, polished surfaces. Length 15 mm, width 5 mm, possibly tooth from a comb. Sf. no. 3, from <101>, 209/100.
Fragment, broken at both ends, hexagonal cross-section, polished surfaces. Length 46 mm, max diameter 4 mm, possibly rough-out for a pin. Sf. no. 39a, from <103>, 212/100.
Fragment, broken at both ends, triangular cross-section, notched. Length 40 mm, max. width 5mm. Sf. no. 39b, from <103>, 212/100.
Long bone, sawn at both ends and slightly flattened on two faces. Length 83 mm, diameter of shaft 10 mm. Sf. no. 67, from <103>, 209/100.
Flat fragment with one square end and marks of sawing (?) on one face. 12 mm square. Sf. no. 68, from <101>, 220/100.

3.6 Stone

3.6.1 Building stone

The only potential building stone that was at all common was chalk. Thirty fragments were retained as showing evidence of working, although as chalk is not part of the natural geology here, all examples, whether worked or not, must have been brought onto the site. The majority (20 fragments) was found in the topsoil layers <103> and <104>. Two were found in <105>, five in <107> and one in <108>. The surface <117> was composed of squared chalk blocks; a sample of two was retained.

One shaped block of unidentified sandstone was found in <129>.

3.6.2 Abrasive stone

The most notable example was a large fragment of a circular quern stone from <126>, where it appeared to serve a secondary function as post-packing (see fig. 4). It has an estimated diameter of 400 mm; its thickness varied from 40 mm at the edge to 25 mm near the centre. Sf. no. 46.

Forty-two very small fragments of Mayen lava quernstone were found in the topsoil <103> at 225/.

One fragment of a laminated sandstone slab that had been used as a sharpening stone (sf no. 54) was found in the topsoil <103> at 227/.

3.6.3 Flintwork

Seventy-one pieces of flintwork were recorded. Six appeared to be debris from the preparation of flints for use as a building material (from <101> (3), <103> (2) and <112> (1)), and two may be gun-flints (from <101> and <103>).

Leaf-shaped arrowhead from <112>, sf no. 55.

Three possible cores from <103>, 212/100 (2) and 218/100 (1).

Of the remaining 59 flakes and blades, sixteen showed signs of working: six were notched and the rest had one or both edges blunted. A high proportion of both worked and unworked examples had been snapped, perhaps indicating post-depositional damage.

3.7 Other building materials

3.7.1 Roman brick and tile

A total of 180 fragments of brick or tile were identified as being probably of Roman date. The majority (136) was from the topsoil and associated spreads (<100> to <104>). The rest were from phased contexts: one from <117> (phase 1); one from <113>, four from <110> and four from <130> (phase 2); five from<118>, one from <125>, five from <106>, two from <107>, five from <108> and four from <127> (phase 3).

Of these, 73 were identified as fragments of *tegula* and a further seven as *imbrex* (roof tile). The majority (88) were too thick to be from *tegulae*, and were simply identified as brick/tile. There were seven possible *tesserae* (all from <101> to <103>) and five fragments of box tile, of which Ernest Black writes:
"Sf no. 62 <127>: part of unkeyed side (T16) and one face (T16) of box tile. The face carries substantial traces of mortar and is keyed with die 4.
Sf no. 66 <103>, 220/100: two joining fragments (Tc. 13) from the face of a box tile keyed with die 4.
Sf no. 71 <103>, 223/100: part of face of box tile (Tc. 15), apparently burnt, with three intersecting impressions of straight combing (i.e. not relief-patterned).
Sf no. 72 <101>, 242/100: fragment from the face of a box tile (Tc. 15) keyed with die 1."

All these fragments are small (none has a measurement exceeding 100 mm). The two dies represented here belong to a series dating to the middle decades of the second century (see Betts *et al.* 1997). Die 4 is known from the mansio baths at Chelmsford in Essex and from postulated baths at the roadside settlement at Alfoldean in Sussex which, like Ewell, lies on Stane Street. Die 1 was previously found by Lowther at Purberry Shot, Ewell while a virtually complete tile keyed with die 4 and other fragments were reported from Ewell Churchyard Extension in 1960. Dies 5, 14 and 66 are also known from Purberry Shot and die 66 from Tayles Hill, Ewell. All the dies represented at Ewell were found at the villa on Ashtead Common, just over 5 km to the south-west of Ewell."

3.7.2 Daub and mortar

A total of 34 fragments of daub were found in a relatively small area between 219/ and 226/. Nine of them were from the topsoil <103> and rest from the surface <105> (six fragments) and the dumped deposits <108> (eleven fragments), <127> (four fragments) and <129> (two fragments). In addition, two were found in the cut feature <130>. Traces of wattle impressions were found on some examples. Six fragments of mortar were found: five in <103> and one in <113>. The identifications of one sample of daub and one of mortar were confirmed by soil micromorphology (McPhail 2001).

3.7.3 Plaster

Three fragments of Roman wall plaster were found, all in the topsoil <103>. One (sf no. 40, found at 212/) showed evidence for having been re-coated; the others (sf no. 32, from 212/ and sf no. 60, from 208/) were plain.

3.7.4 Opus signinum

One fragment of *opus signinum* was found, in <101>.

3.7.5 Medieval and post-medieval roof tile

Some 100 fragments of medieval or later roof tile were found, all from the topsoil (<101> to <103> and <111>). All were small and none had more than one corner present.

3.8 Animal bone

Some 412 fragments of animal bone, weighing just over 7 kg, were found. The majority (361 fragments = 88%; 5.4 kg = 77%) is from the topsoil layers <101> to <104>. Most of them are very small (average weight 15 g) and many are worn. Because of this, and because of the difficulty of assigning them to a definite period, they were not catalogued by species or body part. By contrast, a group of only six bones (including one skull) from the spread <129> weighed over 1 kg (15% of the total weight), and a group of five bones from the cut feature <130> weighed 180 g (2.5% of the total). There were also small groups from <110>, <112>, <113>, <118>, <125> and <126>.

4. Spatial distribution of the artefacts

One of the stated aims of the project was to investigate 'the rate at which the intensity and nature of Roman activity changed away from the road' (see 1.3, remembering that the west end of the trench is nearest to Stane Street). This aim is partly met by the structural evidence (see chapter 2), but also by the patterns of distribution of artefacts along the trench. Although locations were recorded in metre squares, this is too fine a division for this sort of analysis, and instead zones of 5 m length were used, e.g. 200/ to 205/, called 200+.

The classes of artefact chosen for this analysis were Roman pottery, Roman building material, and Roman coins; animal bones and metalwork were also included as they are likely to be predominantly Roman in date. Flints and post-Roman building material were chosen as 'controls', since their distribution should not be affected by the presence of Stane Street. No other class of artefact is sufficiently abundant for this analysis.

The counts of objects and weight in grams of animal bones are given in table 4. The term brokenness means sherds/eves.

	200+	205+	210+	215+	220+	225+	240+	260+
Roman pottery	202	341	348	296	419	279	494	112
" " (eves)	1.64	3.39	3.64	1.90	3.35	1.71	4.32	0.66
" " (brokenness)	123	101	96	156	125	163	114	170
Roman building material	10	25	22	40	48	15	12	1
Roman coins	3	4	3	6	2	3	4	1
Animal bone	18	62	94	60	81	27	65	5
Animal bone (g)	226	833	668	1049	1251	1855	1047	95
Animal bone (average wt in g)	13	13	7	17	15	69	16	19
metalwork	49	78	78	41	40	16	39	8
flint	14	5	16	17	10	1	4	7
Post-Roman building material	15	13	21	17	10	2	13	9

Table 4

There is no consistent pattern across the artefact types. There is generally least material in the extreme east of the trench (260+) and, to a lesser extent, in the extreme west (200+). Apart from this, Roman pottery maintains a fairly steady level, peaking in the east (240+), where a concentration, noted during excavation, may represent an otherwise undetected pit. The pottery appears to become more broken to the east, except for this zone, which again suggests the presence of a 'protective' feature such as a pit or ditch. Roman building material is concentrated between 215/ and 225/, in the general area of the deposits of phase 3. Roman coins show no obvious pattern, perhaps because of the small numbers of them. The numbers of animal bones are fairly level, except for a fall in 225+ which, however, has the greatest weight of bone, due to the much higher average weight of bones here. Metalwork shows a contrasting pattern, being concentrated more to the west than the other categories, between 205/ and 215/. The post-Roman building material shows (as one might expect) a fairly steady pattern, except for a drop in 225+. This may be because this zone was an extension to the original trench, and the topsoil layers may have been dug rather faster here than elsewhere. In which case, the declines in Roman pottery, building material, metalwork and flint here may be more apparent than real.

It is clearly simplistic to talk about fall-off rates here, but perhaps a series of zones can be identified:

1. 200/ to 204/: no features, relatively few finds
2. 204/ to 210/: phase 1 features, more finds, especially metalwork
3. 210/ to 215/: phase 2 features, finds as zone 2.

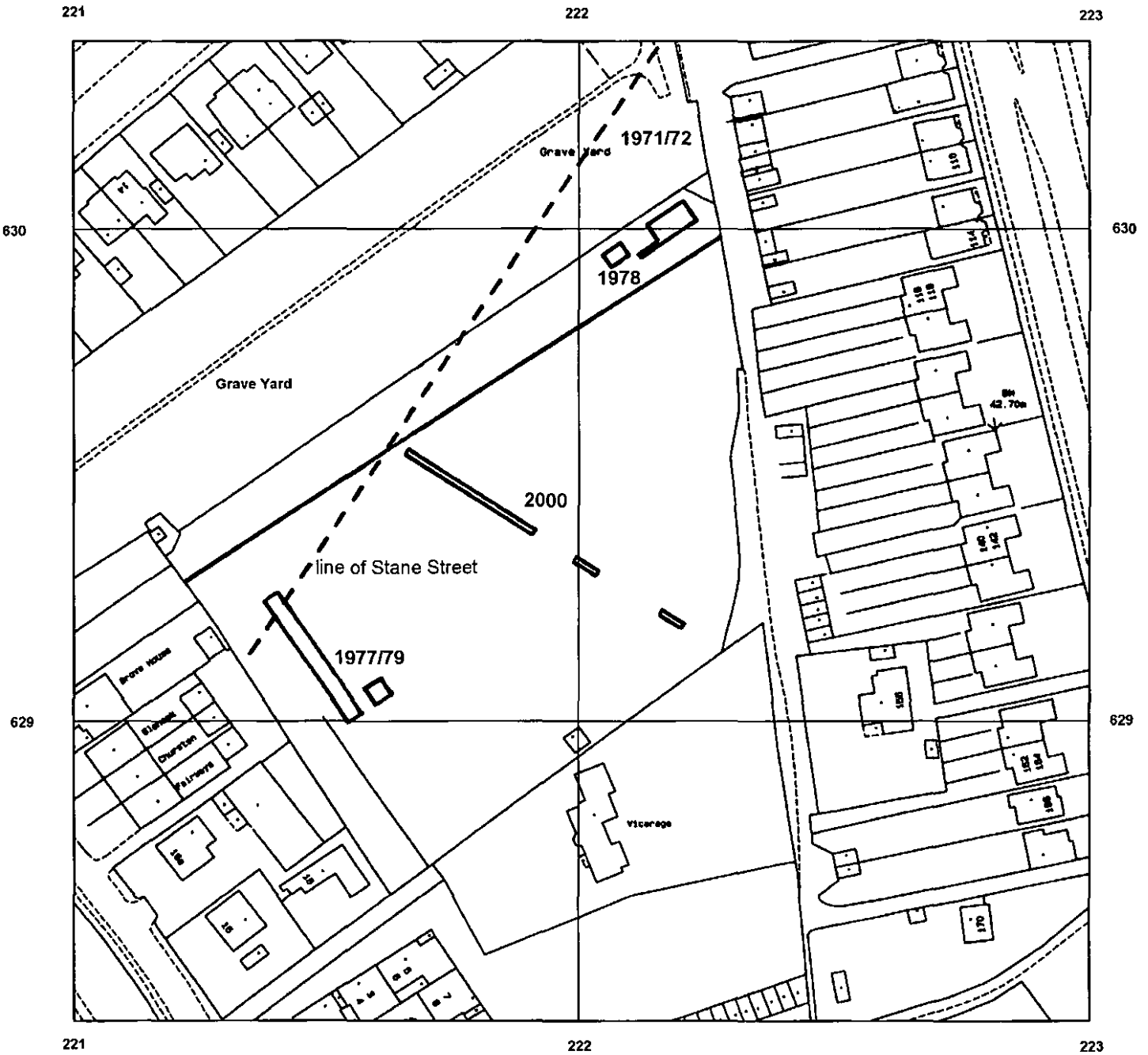
4. 215/ to 225/: phase 2 cut features and phase 3 laid/dumped features, more Roman building debris.
5. 225/ to 229/, 240/ to 245/: no obvious features, but concentrations of large bones and pottery fragments, possibly indicating unrecognised cut features. Burial from 244/ to 245/.
6. 260/ to 265/: no obvious features and a marked reduction in finds.

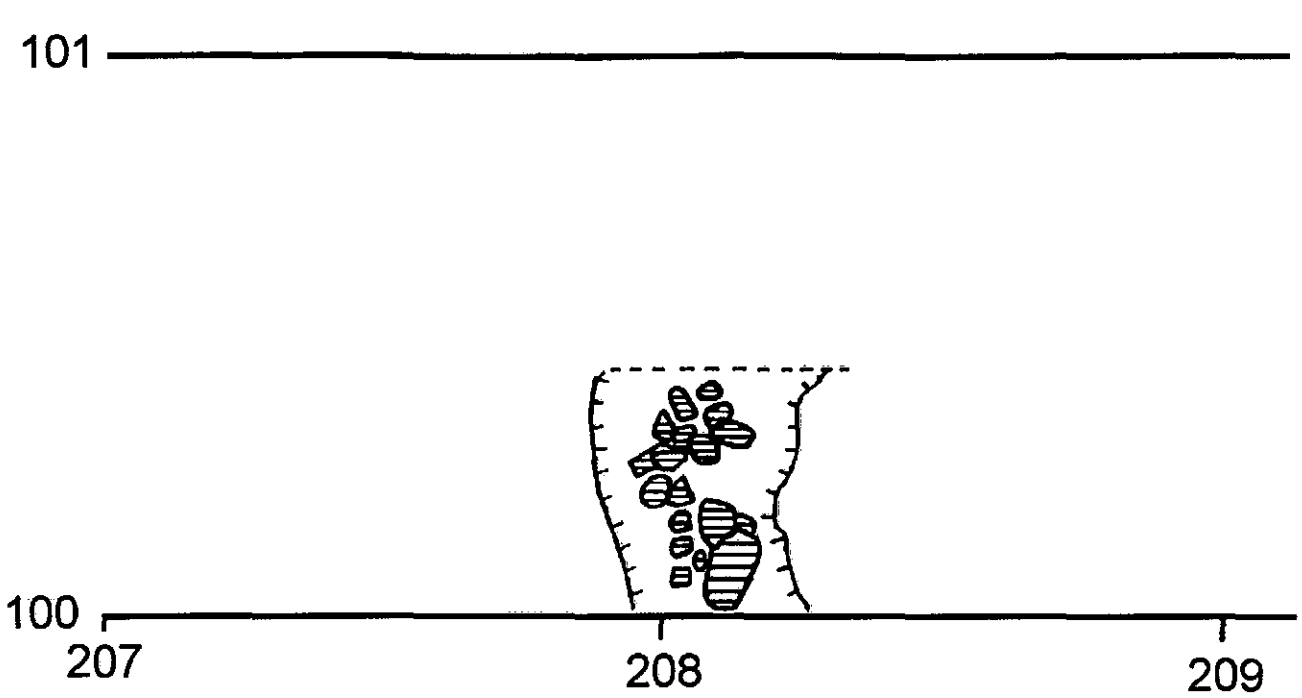
This pattern can be tentatively interpreted as follows:
1. Early (phase 1) building alongside Stane Street, represented by a chalk-block floor <117> laid on a foundation of flint pebbles <112> and <121>, and seriously damaged by later activity, probably ploughing. Alignment unknown. Late 1st to early 2nd century.

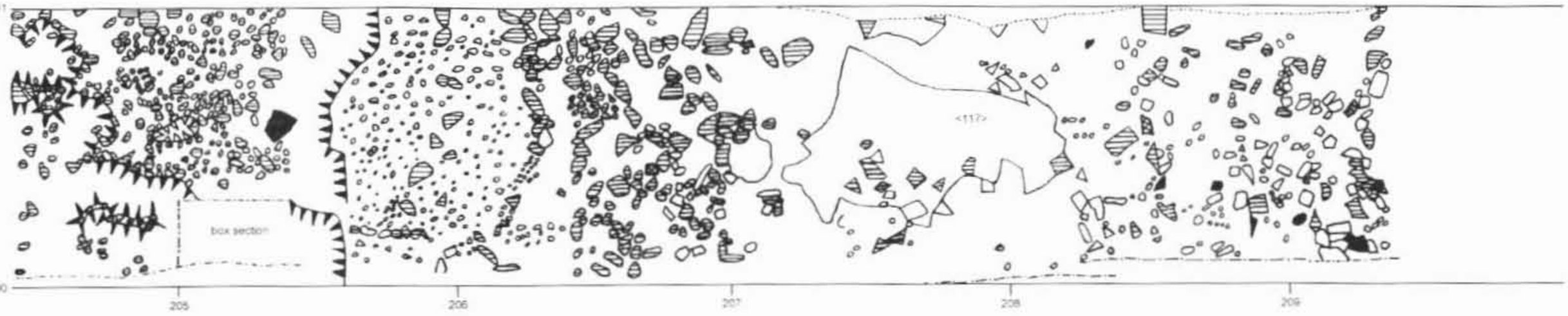
2. Second (phase 2) building, extending further away from Stane Street, represented by a possible beam slot <113>, wall <110> and post-hole <126>, all damaged by later activity. Aligned at about 110° clockwise to Stane Street. Feature <110> may be an external (back?) wall and <113> may be an internal partition. Evidence for pitting further east. Mid- to late 2nd century.

3. Phase 3 ditch <125>, apparently demarcating the phase 1 and 2 buildings from an area of laid surfaces, composed of re-used building material, <105> to <108> and <127>, including a possible hearth. These areas are interpreted as parts of a floor, the rest of which consisted of beaten earth. All damaged by later activity. Alignment unknown. Late 3rd or 4th century.

This evidence suggests the presence of relatively insubstantial buildings alongside, but not necessarily aligned on, Stane Street. They appear to move away from Stane Street over time, but it is possible that later phases alongside Stane Street have been destroyed, e.g. by ploughing. The burial <113> is likely to be part of a cemetery beyond the limits of the settlement, which here appears to consist of a narrow 'ribbon' alongside Stane Street.


221
222
223
630
629
1971/72
Grave Yard
1978
Grave Yard
2000
line of Stane Street
1977/79
Vicarage


101
100
207
208
209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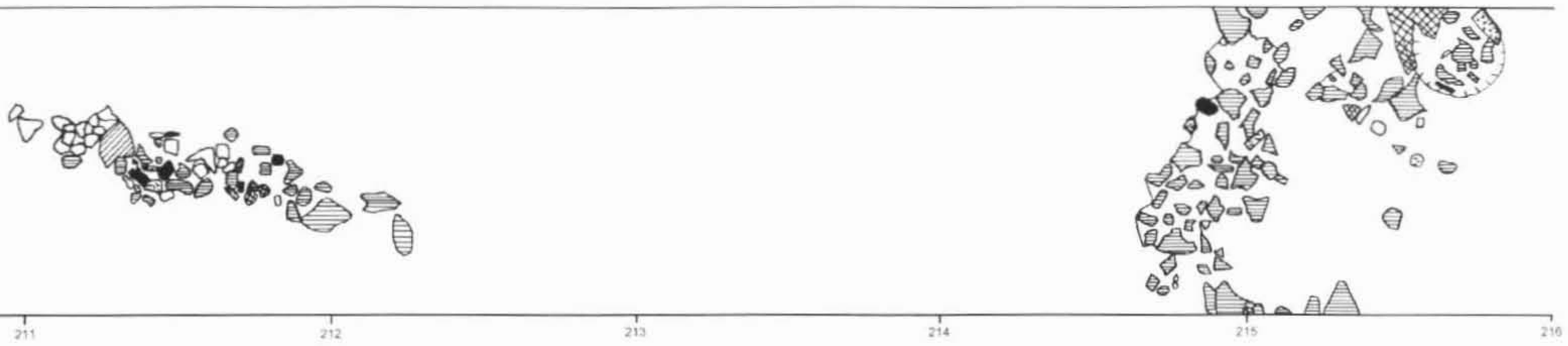
100
box section
<117>
205
206
207
208
209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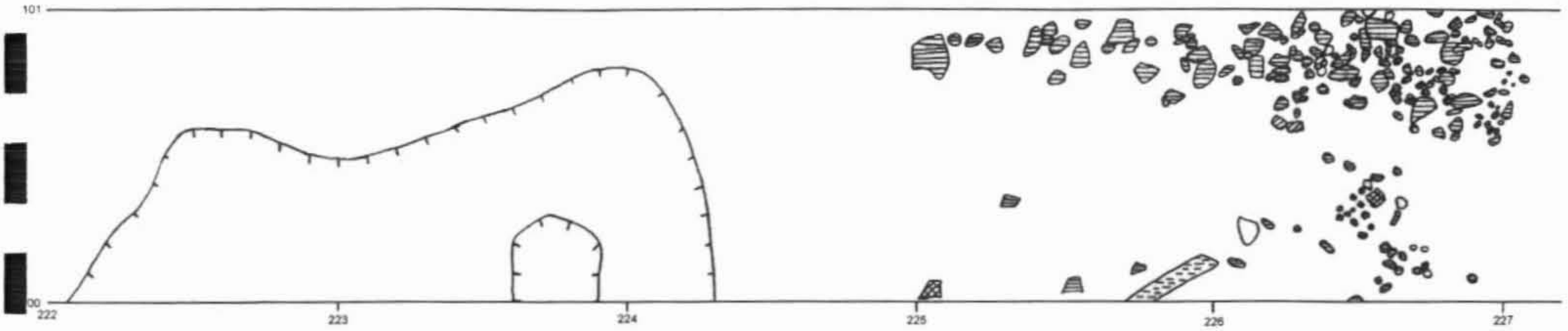
216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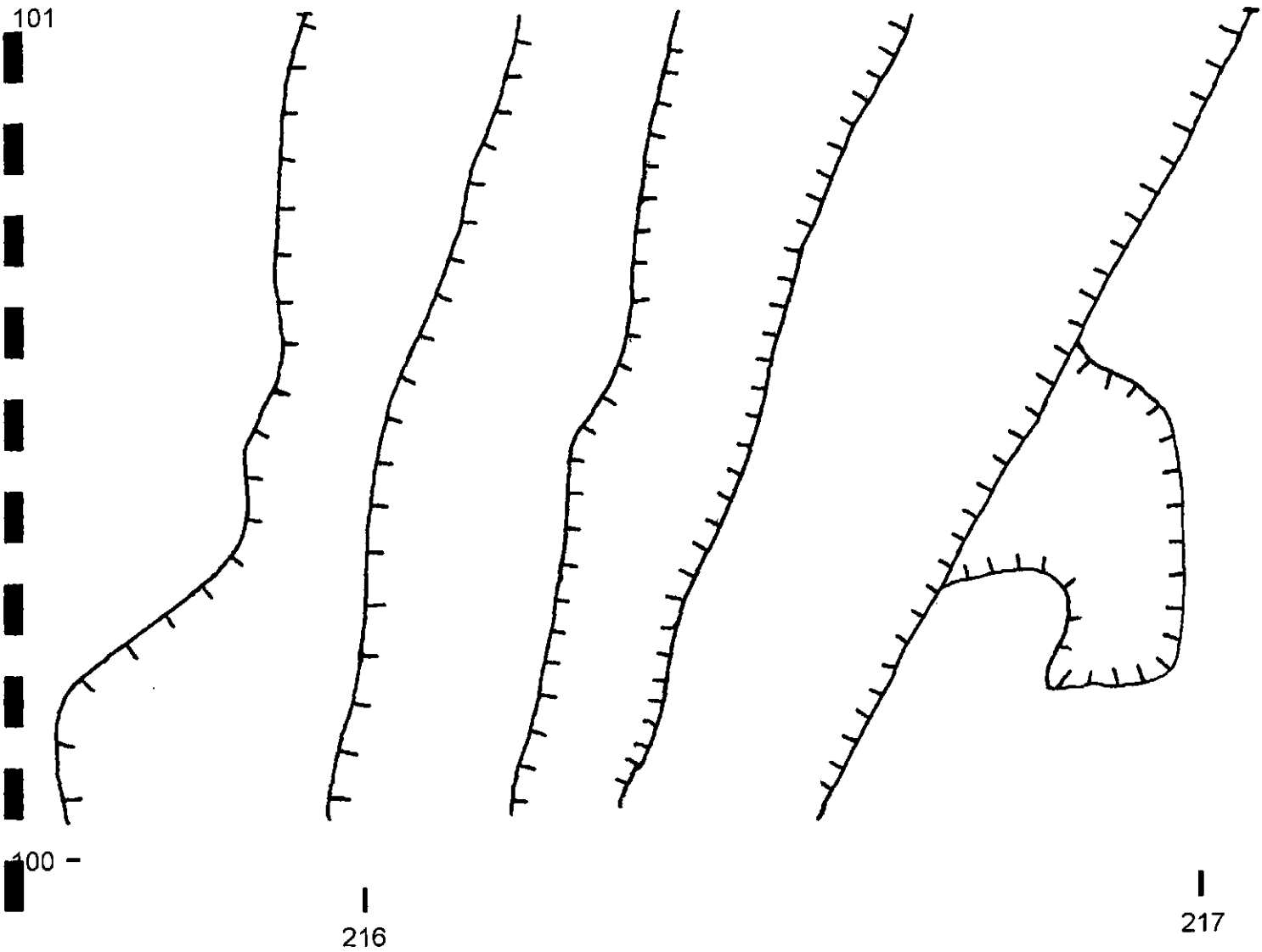
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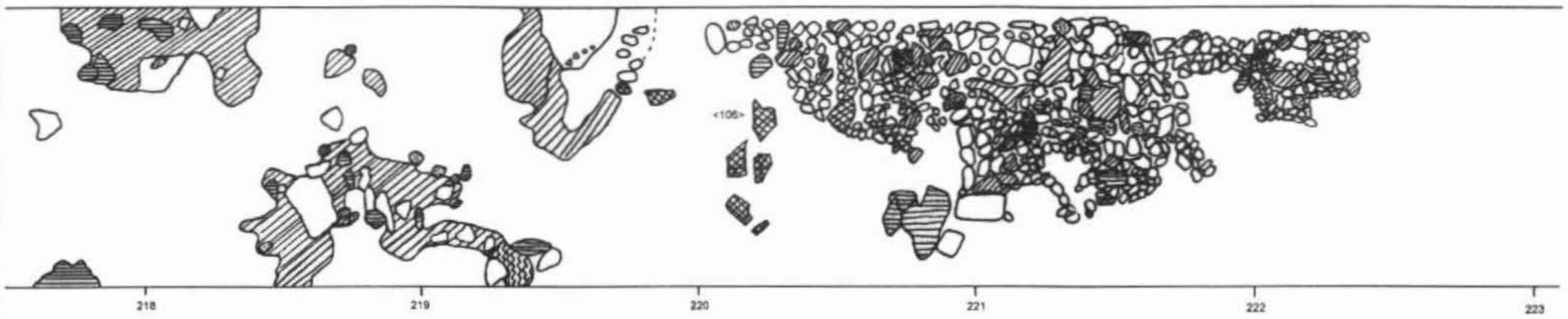
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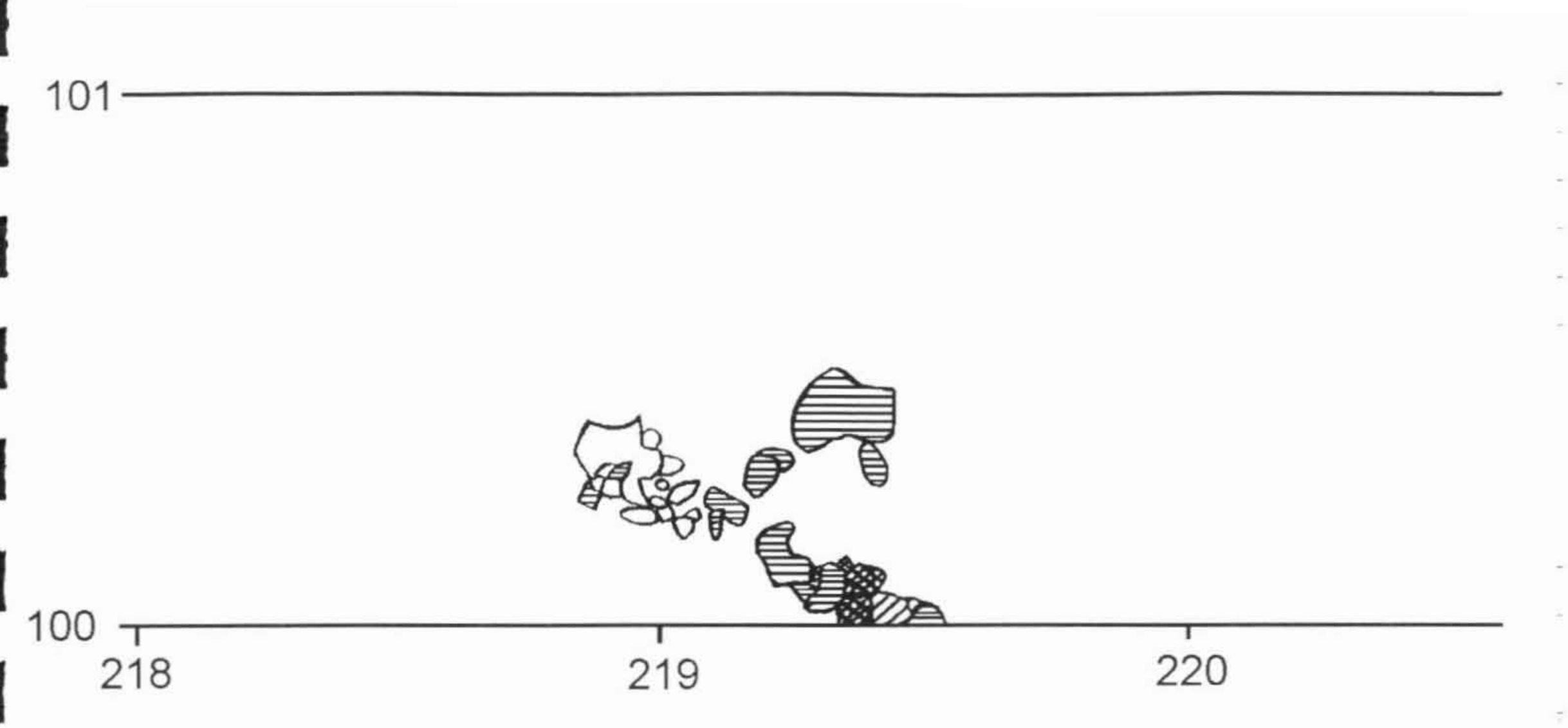
<106>
218
219
220
221
222
223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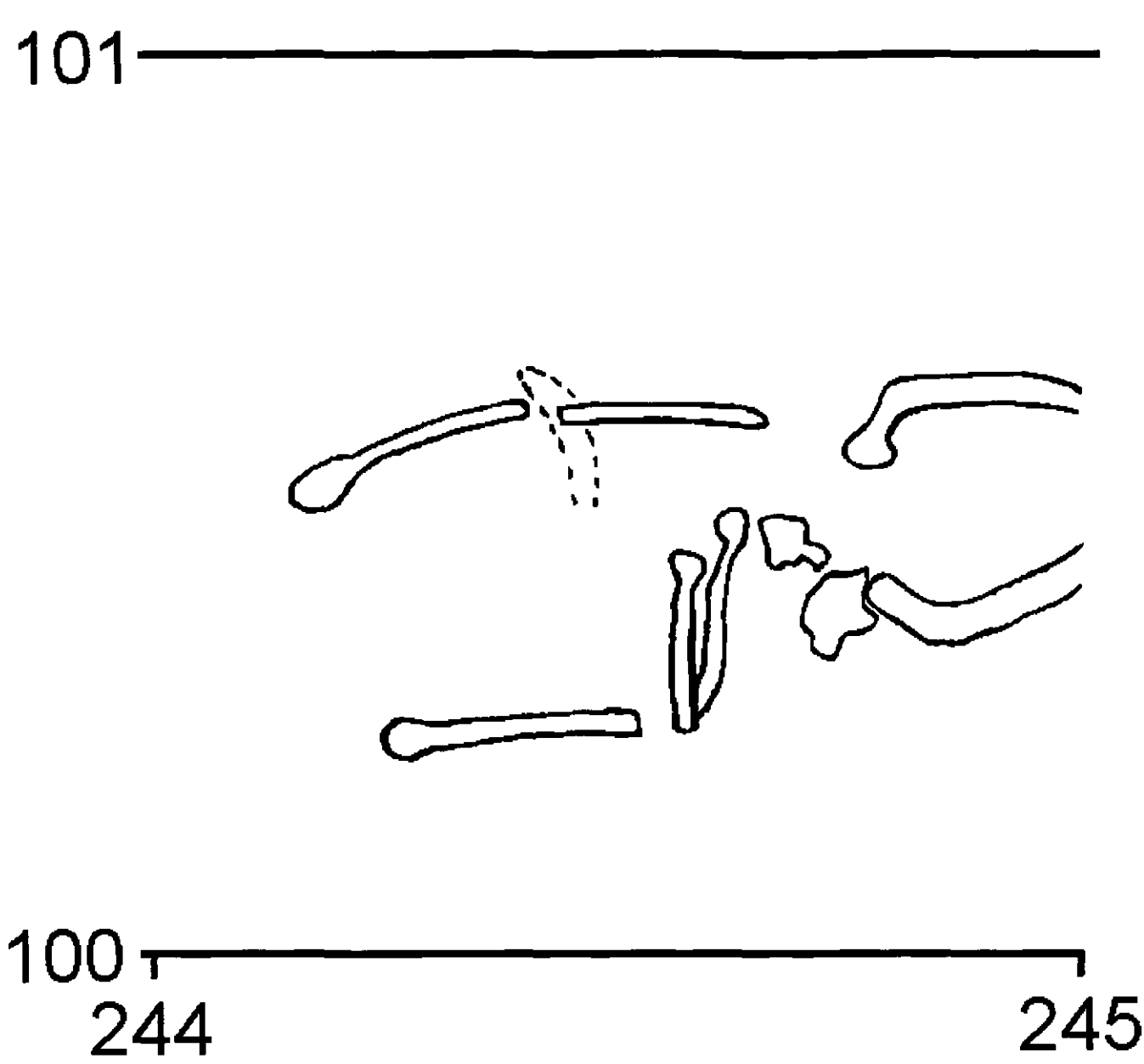
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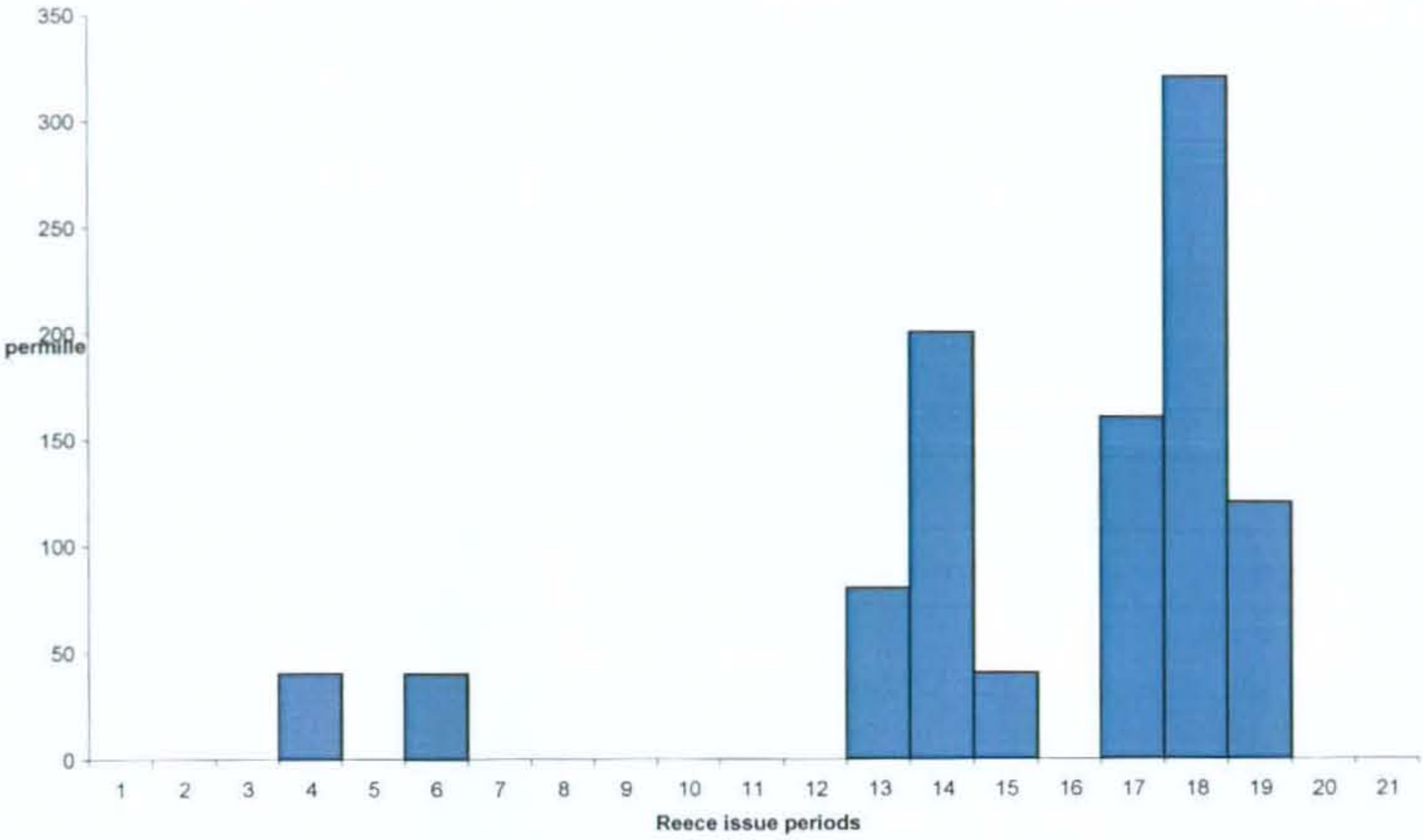
245


cm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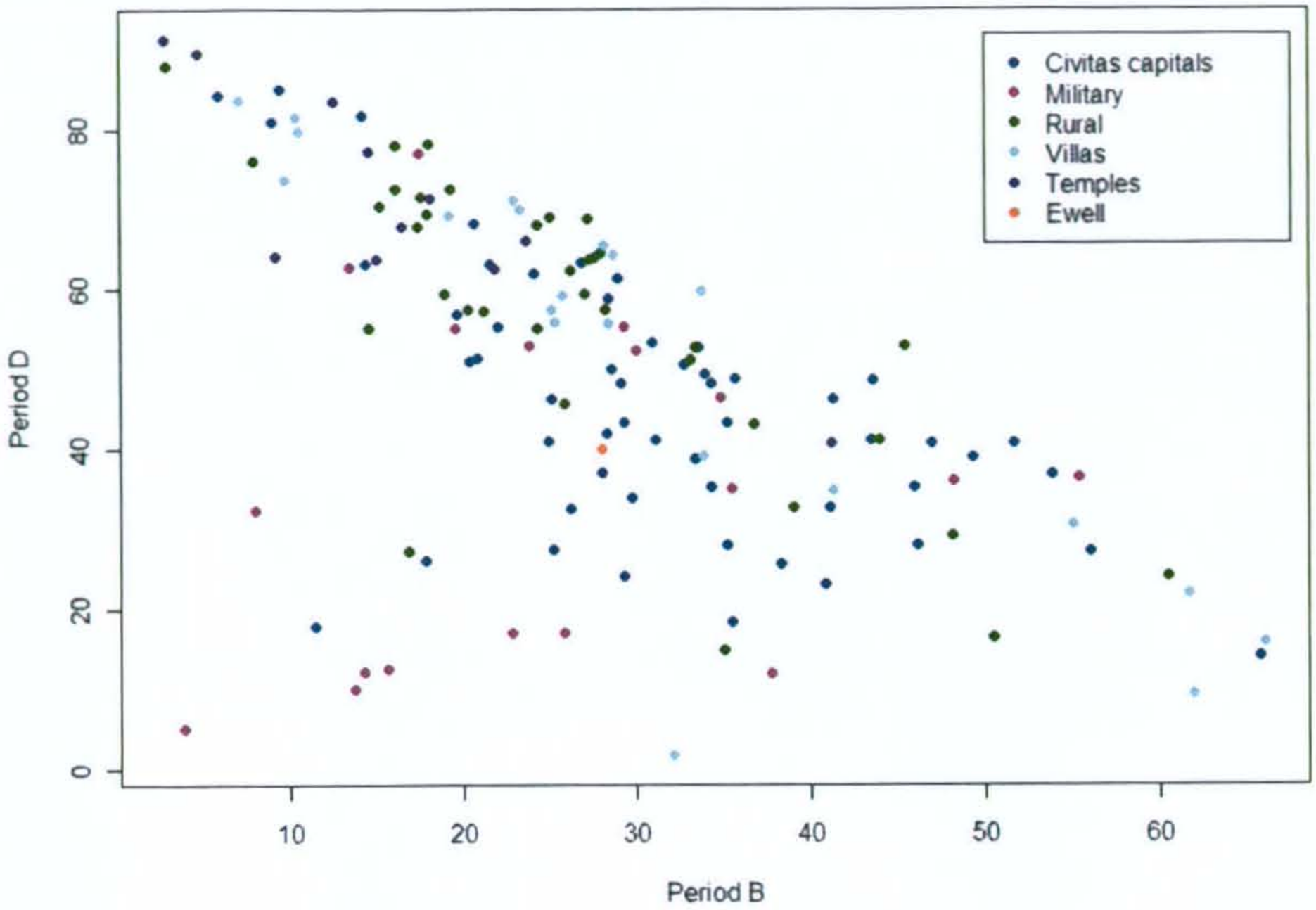
Reece issue periods


Civitas capitals
Military
Rural
Villas
Temples
Ewell
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20
40
60
80
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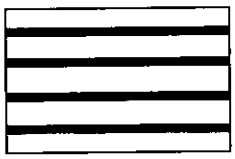
50
60
Period B

Key



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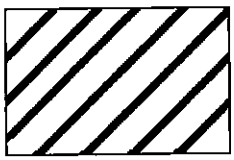
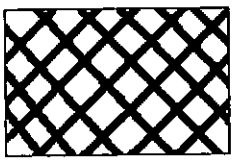
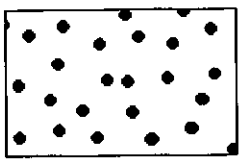


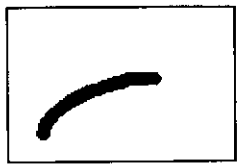
daub,
mortar



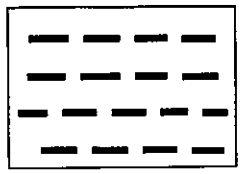
tile



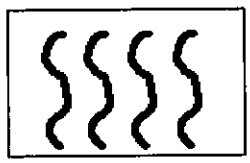
stone



pottery



bone



clay