

92.35

**92.35 FRIERNHAY 1981  
(Roman military)**

*(including Appendix - Snayle Trench Observations 1980)*

EXCAVATIONS AT FRIERNHAY STREET, EXETER, 1981  
PART 1: ROMAN MILITARY

by

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EXETER MUSEUMS ARCHAEOLOGICAL FIELD UNIT

Report No. 92.35



EXETER  
— CITY COUNCIL —

## PREFACE

This report comprises three sections. The first section summarises, in the form of a site narrative, the main results of the excavation of the Roman military levels at the Friernhay Street site of 1981. The second section contains the more detailed archaeological evidence upon which the site narrative is based. In Section 2 the excavation records are presented in a processed form using matrices and stratigraphic groups and sub-groups with standardised descriptions of individual contexts. Section 3 gives information on the finds material as well as providing a summary photographic record of the site.

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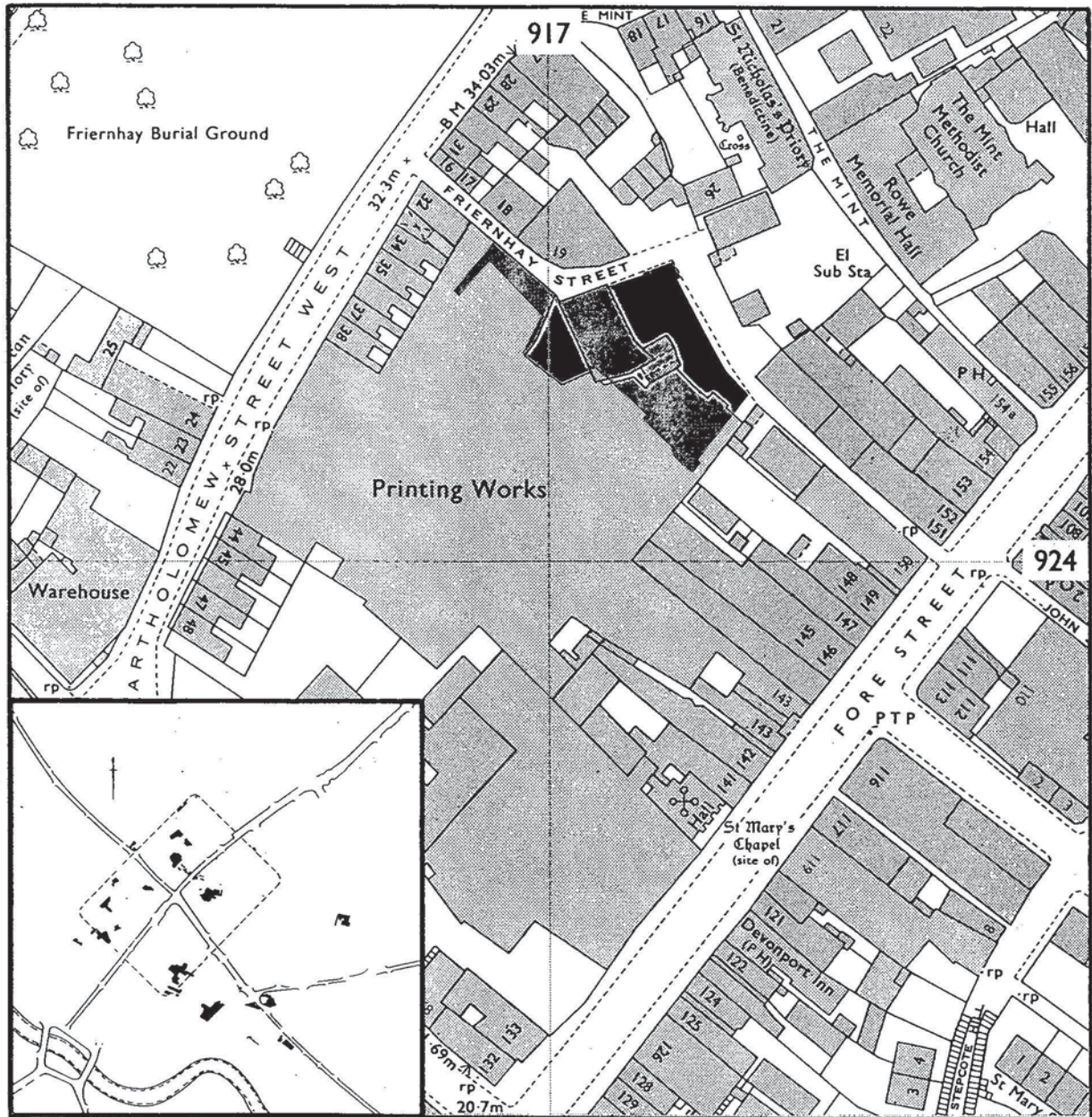


Fig. 1 The location of the Friernhay Street excavations Exeter 1981. The inset shows the approximate position of the site on the fortress defences.



## SECTION 1

### 1 Introduction

From January to June 1981 the Exeter Museums Archaeological Field Unit (EMAFU) undertook an excavation on a plot of land adjacent to an angle in Friernhay Street on its south-western side. The site was formerly occupied by Wheatons' printing works and was later acquired for housing. The excavation was funded by Exeter City Council and was directed by C.G. Henderson. The site supervisors were S.W. Brown, J. Dunkley, J. Pamment (now J.P. Salvatore) and P.J. Weddell. Some on-site recording work was also undertaken by N. Doggett, J. Pidgeon, J. Thorpe, A. Hunn, J. Hunn and R. Thomas. S.W. Brown and J. Pamment were responsible for the initial post-excavation interpretations. Further post-excavation work was undertaken in 1986 by J. Pamment and K. Westcott, in 1987 by J. Pamment and C. Earwood and in 1989 by R. Goodyer. The post-excavation work for this research archive report was undertaken in 1992 by J.B. Bedford and J.P. Salvatore.

#### 1.1 The organisation of this report

Section 1 contains a site narrative for the Roman military period. This narrative is an interpretive and stratigraphic account based upon the discussion of the archaeological records contained in Section 2.

Section 2 contains the detailed archaeological evidence for the stratigraphic development of the site during the Roman military period.

Section 3 contains a listing of the pottery and other finds evidence and a summary photographic record.

#### 1.2 The site (Fig.1)

The site was situated off Friernhay Street at SX 9172 9244 and straddled an area of the defences of the former Roman legionary fortress at Exeter.

#### 1.3 Method of excavation

Excavation was by the open-area method with accompanying sections to recover details of the stratigraphy. The main area of the site was approximately 35m north-west/south-east by 22m north-east/south-west with a further extension on the north-western side of approximately 16m x 4m. In addition, two trenches were dug at right angles to the extension in a south-westerly direction. The site was crossed by many modern service trenches, particularly in the south-eastern part of the site. This resulted in considerable damage to the stratigraphy and the sides of the service trenches were occasionally utilised as ready-made sections.

#### 1.4 Excavation summary

Remains of the Post-medieval, the Medieval and the Roman civil periods were recorded overlying the deposits of the Roman military period which at Exeter is dated from c.AD 55/60 - c.75/80.

A long stretch, some 55m, of the south-western defences of the legionary fortress was investigated including a 35m stretch of the rampart. The two successive defensive ditches of the fortress were also observed at various points forward of the rampart along a length of 48m. The *via sagularis* was exposed over a length of 17m, and the *intervallum* over a length of 25m. A series of timber buildings in the *intervallum*

backing against the rampart were succeeded by a complex sequence of timber cook-houses with ovens. The back wall of a suspected barrack was observed adjacent to the *via sagularis*. A ditch, more or less at right angles to the fortress, which terminated 4.5m short of the later fortress defences, was also noted. Roman military levels were first encountered at about 32.4m OD.

#### 1.5 Post-excavation applications

A preliminary site report for the Roman period was compiled by R. Goodyer. Some material from that report has been revised for the purposes of this research archive report. The site records, comprising context sheets, field plans, plans on drawing film, and photographic material, are stored at the EMAFU offices, Gandy Street, Exeter under project no.75.

#### 1.6 Site narrative: Roman military (Figs. 2-3)

A significant length of the south-western defences of the fortress, including the rampart and traces of two wooden interval towers, were revealed in excavation at Friernhay Street; this allowed some facets of their construction to be examined. The rampart was laid down onto the existing Pre-Roman ground surface. At its base was a corduroy of timber strapping, placed at right angles to the front face of the rampart. The remains of this strapping, visible as a series of parallel stains on the ground surface, extended from the front face of the rampart to a position about midway towards the rear face. Further evidence of strapping at higher levels in the body of the rampart was not observed. The width of the rampart at its base was c.4.6m although material associated with its construction spread across the area of the *intervallum* for a further 2.4m. The rampart was found to have survived to a height of about 1m uniformly over the area excavated. The body of the rampart consisted of mixed compacted clays much of which almost certainly derived from the digging of the first (inner) fortress ditch. The rear face of the rampart may have been revetted. A near vertical face at the rear of the rampart observed behind the most north-westerly of the two interval towers provides a further indication that some form of upright revetment had once existed. Only traces of the suspected turf-laid front cheek of the rampart were observed, the front face of the rampart having suffered damage from later Roman clay-quarrying and other later activity. No evidence was observed of a front revetment of the kind seen in later excavation at St Catherine's Almshouses. There may only have been a narrow berm separating the front of the rampart from the innermost fortress ditch. Evidence was noted of two wooden interval towers, the upright supporting timbers of which stood in the body of the rampart. This evidence took the form of post-pits and post-pipes, the former being visible only when the rampart clays were removed. The two interval towers were approximately 30m apart with the most complete example (that at the north-west) being about 3m square.

Fronting the rampart was the defensive ditch of the fortress (the inner or first fortress ditch; see Fig. 2). This ditch was V-shaped in profile, about 2m deep when excavated, and 2.5m wide, although its original width may have been nearer 3.5m before truncation. At some stage in the life of the fortress this ditch was evidently replaced by a larger ditch placed further forward from the rampart. It has been demonstrated from pottery evidence elsewhere on the defensive circuit that the V-shaped ditch was probably infilled during the pre-Flavian period (Bidwell 1980, 23). The replacement ditch, known as the second fortress ditch, was located some 4m

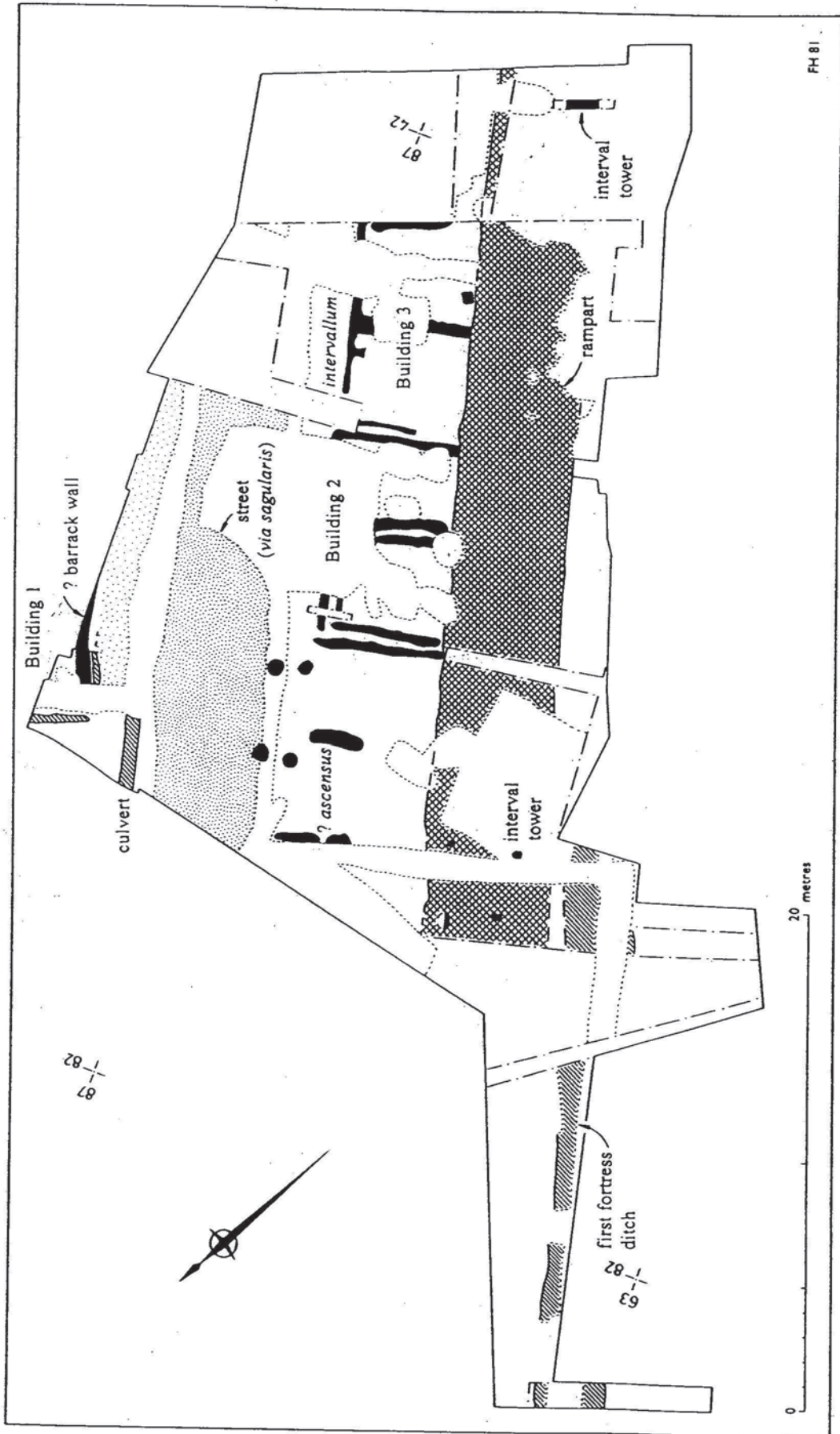


Fig. 2 A composite plan of the early Roman military features. Scale 1:250.



forward of the rampart although its top edge had suffered heavy truncation from later Roman activity; it can be assumed that the inside edge was originally much closer to the rampart. The bottom of the second fortress ditch was not clearly seen due to waterlogging but a depth of c.3m was recorded in one section. Only part of the truncated width was seen; this showed the ditch to have been at least 5.3m wide. A considerable amount of early activity was observed in the *intervallum*, the area behind the rampart. A group of post-trenches and post-holes might represent the foundations for at least two stages of an *ascensus*, a stairway leading up to the north-western interval tower. Alternatively it may have been some kind of temporary structure associated with the construction of the interval tower. What is clear is that this structure was erected early in the life of the fortress for it was observed that one of the post settings was overlain by the first surfacing of the *via sagularis*. To the south-east of this structure and backing onto the rampart were two timber *intervallum* buildings indicated by the remains of post-trenches at their foundation level. These buildings (Buildings 2 and 3) were divided in such a way that a number of rooms, none larger than 5x5m, fronted onto the main perimeter street of the fortress (the *via sagularis*). A later and almost precise parallel for this arrangement is seen in Buildings D and E at the legionary fortress at Caerleon where construction began c.AD75 (Evans and Metcalf 7-9; Fig. 3). Timber buildings to the rear of the rampart at Exeter on its north-western side were also discovered by Lady Fox (Holbrook and Fox 1987) but they were somewhat larger than the Friernhay Street examples (*ibid* 31-33; Table. 1).

The *via sagularis* itself consisted of a well-metalled surface of pebbles laid on a gravel and pebble bed that was resurfaced at least once during the military period. This street was subsequently used throughout the military occupation. It appears to have carried on functioning into the early Roman civil period when further resurfacing of the street occurred. The bedding for this later resurfacing included demolition material including much masonry rubble, hypocaust tile and concrete, possibly derived from the clearance of the legionary bath-house. Flanking the *via sagularis* on its north-eastern side were the remains of the drainage system alongside the road which, in its initial stage, appeared to take the form of a culvert, later to be replaced by a series of ditches that continued into the civil period. A lead water-pipe was laid along the length of the south-western perimeter of the road late in the military occupation; this too may have continued in service into the post-military period.

A timber building (Building 1) identified only by the partial remains of a post-trench running parallel to the *via sagularis*, was, from its position within the fortress scheme, likely to have been the end *contubernium* of a barrack lying *per scamna* with centurial quarters adjacent to the *via praetoria*. A complete change of use for the area occupied by the buildings in the *intervallum* is demonstrated by their demolition to ground level followed by the deposition of a thick (0.4m) mound of gravel which was evidently to act as a bedding for a series of what are likely to have been cooking or bread ovens (Fig. 3). This sequence of events is again paralleled at Caerleon (Evans and Metcalf, 9-13; Figs 4-5) the only difference being that at Caerleon the bedding of gravel for the ovens does not appear to have been provided. The general ground level of the *intervallum* was raised almost certainly as part of the same operation as that undertaken to lay down the bedding layers for the ovens. These deposits have produced Flavian samian. The series of ovens has provided evidence of a complex sequence of use, demolition and re-building (see landuse diagram, page 5). There

appeared to be traces of two side by side timber buildings (Buildings 4 and 5) that housed the ovens; these buildings backed onto the rampart with perhaps an open front or light screen onto the *via sagularis*. The two buildings produced evidence of contrasting internal use with Building 5 having a more complex history than its neighbour.

Building 4 displayed evidence of fire damage resulting most probably from an accidental spread of flame from the ovens. The earliest ovens were constructed of clay, the domed superstructure of which occasionally survived in part. These ovens often revealed traces of a cobbled base with hardened clay floors; in some cases those that succeeded them were constructed with a floor of re-used *pilae* or roofing tiles. It was impossible to determine which ovens may have been in use contemporaneously and there appears to have been considerable variation in the number that were operating at any one time although there was some suspicion that the earliest group may have been constructed in pairs. The ovens were presumably raked out after each firing and considerable amounts of charcoal and other firing debris was found forward of the ovens and stretching to the edge of the *via sagularis*.

Whilst Building 4 appeared to have held ovens throughout its life there is clear evidence to show that Building 5 incorporated a phase, following the use of the first ovens, during which no ovens were present, their place being taken by rooms with clay floor surfaces. This building reverted to housing a new oven before it underwent a further change of use or demolition before yet another oven was constructed within it. After the final oven had ceased to function a further phase of activity, demonstrated by the partial remains of a timber building (Building 6), indicated that a building fronted onto the *via sagularis* perhaps late in the military sequence or early in the civil period.

The end of a V-shaped ditch at approximate right angles to the second fortress ditch terminated about 4.5m short of its outer lip. The ditch was partially infilled during the military period and may represent part of an annexe on the south-western exterior of the fortress.

### 1.7 Conclusions

The excavations at Friernhay Street in 1981 were of great value in determining the spacing between the interval towers which were found to be roughly 30m apart. This spacing was used as the basis for the prediction of further interval towers on the line of the defensive circuit at St. Catherines' Alms Houses and elsewhere (Henderson 1991, 73-5).

The extended sequence of ovens and other activity recorded in the *intervallum* was significant in that it took place within the early Flavian occupation of the fortress. An early Flavian *terminus post quem* is established for the abandonment of the fortress by the legion by the samian finds of early Flavian date in the late fortress deposits at Friernhay Street (Holbrook and Bidwell 1992, 3). The relationship of the site to the fortress as a whole will be discussed in a future Exeter Archaeological Report (Salvatore and Henderson forthcoming).

### Acknowledgements

The plans in this report with the exception of the 800 series illustrations were drawn by T. Ives and were photographed for reduction by G. Young. The 800 series plans were drawn by various members of the EMAFU. Site plans were drawn by B. Jupp, K. Westcott, N. Doggett, L. Caley, J. Pidgeon and others. Of assistance during the course of the excavations

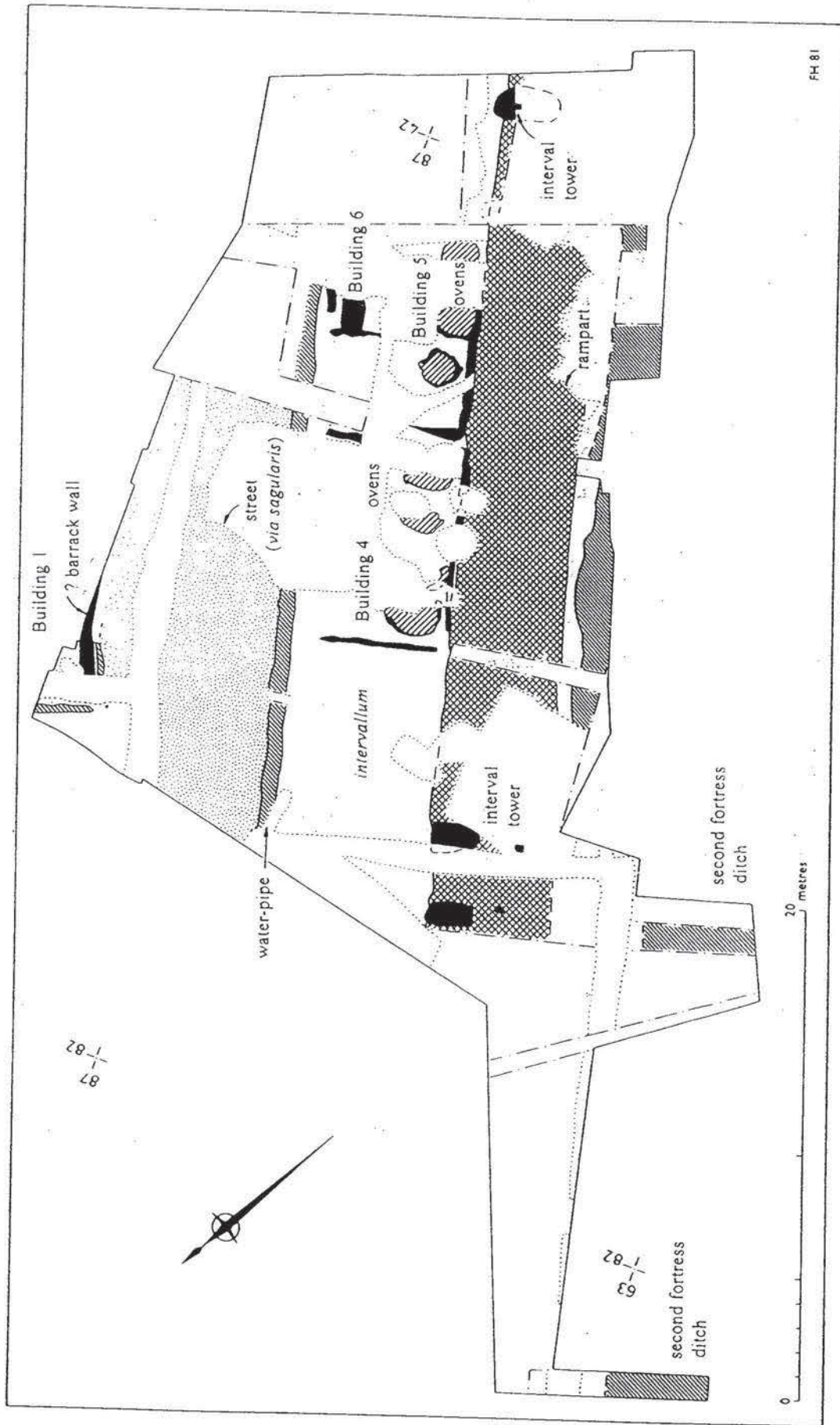


Fig. 3 A composite plan of the later Roman military features. Scale 1:250.

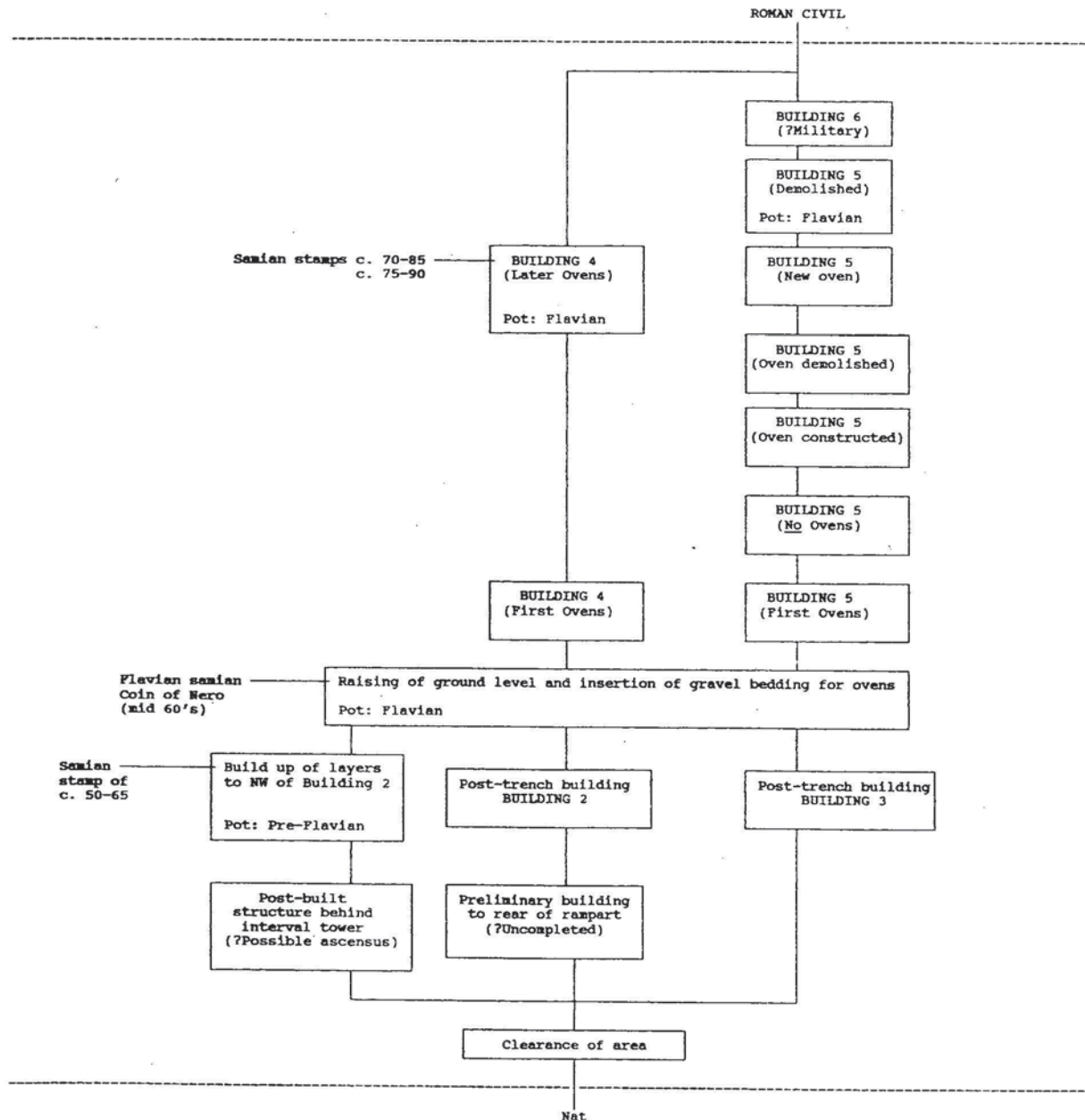


were A. Hunn, J. Hunn and R. Bridgwater. The matrices were produced by A.G.Collings who also typed Section 2 of the text. P. Wakeham produced the landuse diagram. Pottery listings were provided by G. Langman.

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Landuse diagram: Shows the development of the sequence in the *intervallum* in relation to the major dating evidence. Note the Flavian *terminus post quem* for the series of ovens etc in Buildings 4 and 5.

## SECTION 2

## 2 Introduction

This section of the report contains a record of the detailed archaeological evidence upon which the narrative produced in Section 1 is based. The stratigraphic sequences are presented in the form of context matrices. The matrices have been produced according to a series of stratigraphic groups and sub-groups which illustrate events and stages in the archaeological record.

## 2.1 Context matrix identification

Context matrix diagrams have been produced for the contexts of the Roman military period. These are numbered Matrix 1-28. The matrix diagrams have been divided by dashed horizontal lines at significant points; these illustrate the divisions between stratigraphic groups. The group number is located on the left hand side of the matrix diagram immediately below the horizontal line that defines its limit. Further sub-division of the groups into sub-groups is indicated by the sub-group number which is found in bold type immediately to the left-hand side of the contexts that form the sub-grouping.

In the case of Matrix 10a the context number is replaced by the generic context number.

## 2.2 Group and sub-group identification

The Roman military contexts for the Friernhay St. 1981 site have been divided into thirtyseven separate groups. Each group represents an archaeological event. The nature of each group is given in the group discussions, this section includes the interpretational conclusions that can be drawn from a consideration of the stratigraphic and other evidence. Stratigraphic relationships between the groups are illustrated by the group matrix.

Where appropriate, the group may be further divided into sub-groups. These sub-groups represent stages in an archaeological event and they usually consist of a number of contexts that have a clear association. The nature of each sub-group is given in the sub-group descriptions.

The stratigraphic relationships between the sub-groups are themselves illustrated by the group/sub-group matrix.

## 2.3 Context information

Information about individual contexts is provided in two forms. Firstly, the context number as it appears in the context matrix is annotated with an abbreviated 'type' description (e.g. Cph = Cut, post hole). A list of abbreviations is given at the beginning of the series of matrix diagrams. Secondly, a standardised summary description of each context in numerical order is included in the report.

## 2.4 The matrix diagrams, sub-group descriptions and group discussions

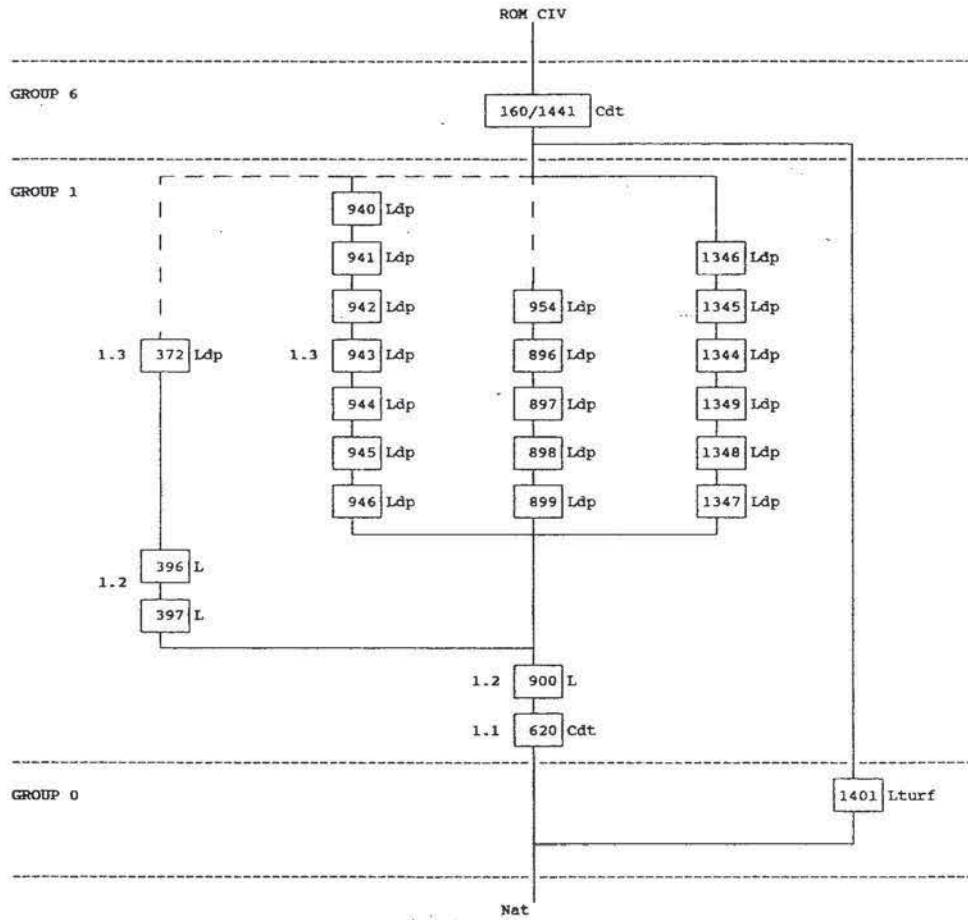
List of abbreviations (for matrices).

|               |      |
|---------------|------|
| Build         | B    |
| Fill          | F    |
| Cut           | C    |
| Layer         | L    |
| Surface       | S    |
| Miscellaneous | Misc |

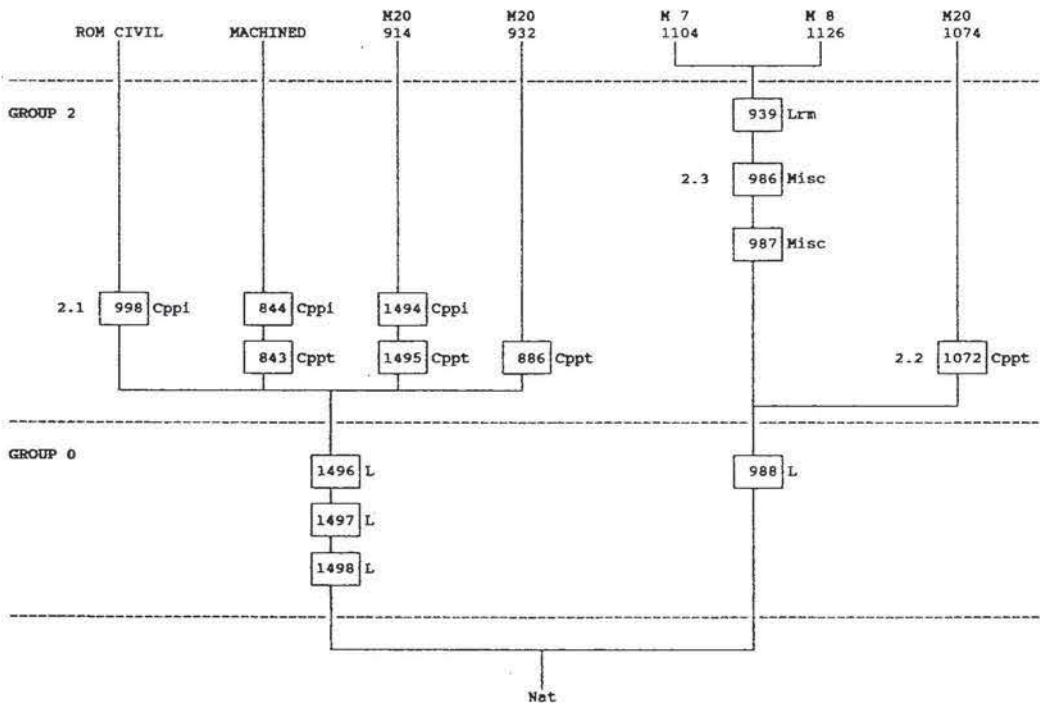
|                   |     |
|-------------------|-----|
| Bank              | bk  |
| Blocking          | bl  |
| Cesspit           | css |
| Cobbles           | cb  |
| Construction      | cn  |
| Culvert           | cv  |
| Demolition        | dem |
| Ditch             | dt  |
| Doorway           | dw  |
| Drain             | dr  |
| Dump              | dp  |
| Extraction trench | et  |
| Floor             | fl  |
| Foundation trench | ft  |
| Gully             | gl  |
| Hearth            | h   |
| Make up           | mk  |
| Metalling         | mt  |
| Natural           | nat |
| Occupation        | occ |
| Oven              | ov  |
| Packing           | pk  |
| Partition         | pa  |
| Pit               | pit |
| Post              | pst |
| Post-hole         | ph  |
| Post-packing      | ppk |
| Post-pad          | ppd |
| Post-pipe         | ppi |
| Post-pit          | ppt |
| Post-trench       | pt  |
| Rampart           | rm  |
| Re-cut            | rc  |
| Repair            | rp  |
| Road foundation   | rdf |
| Robber trench     | rt  |
| Scoop             | sc  |
| Sleeper beam      | sb  |
| Slot              | sl  |
| Soil              | so  |
| Stake             | st  |
| Stakehole         | sh  |
| Terrace           | te  |
| Timber slot       | tsl |
| Wall footings     | wf  |



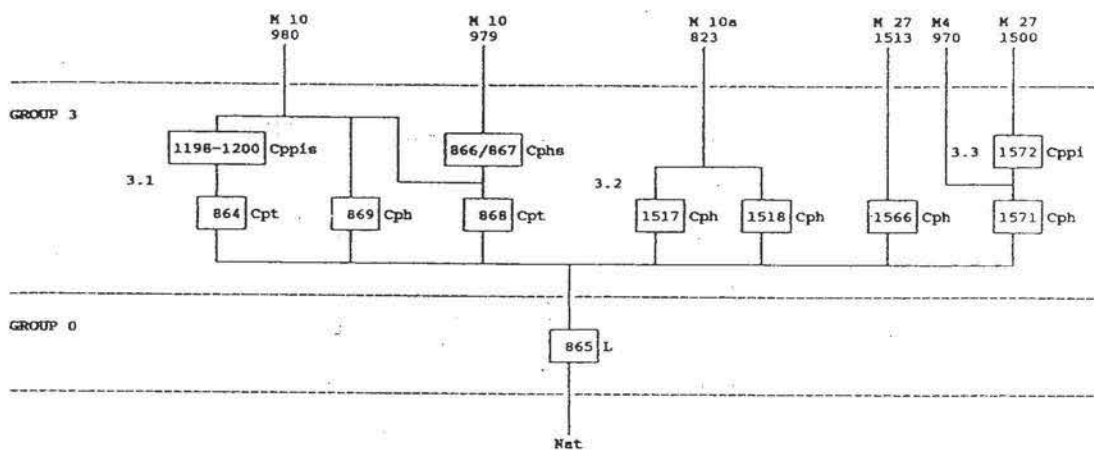
MATRIX 1



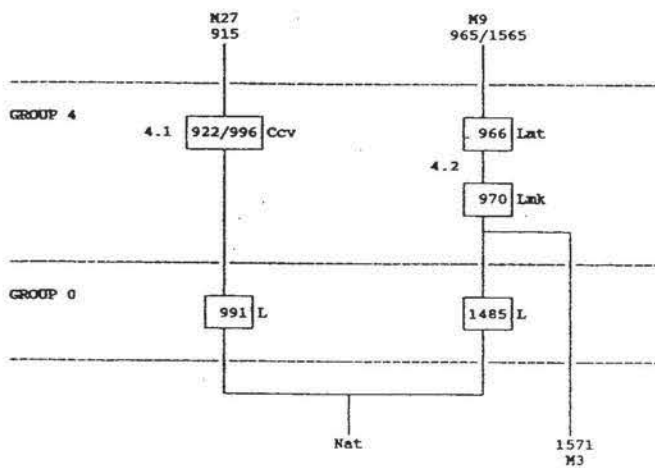
MATRIX 2



MATRIX 3

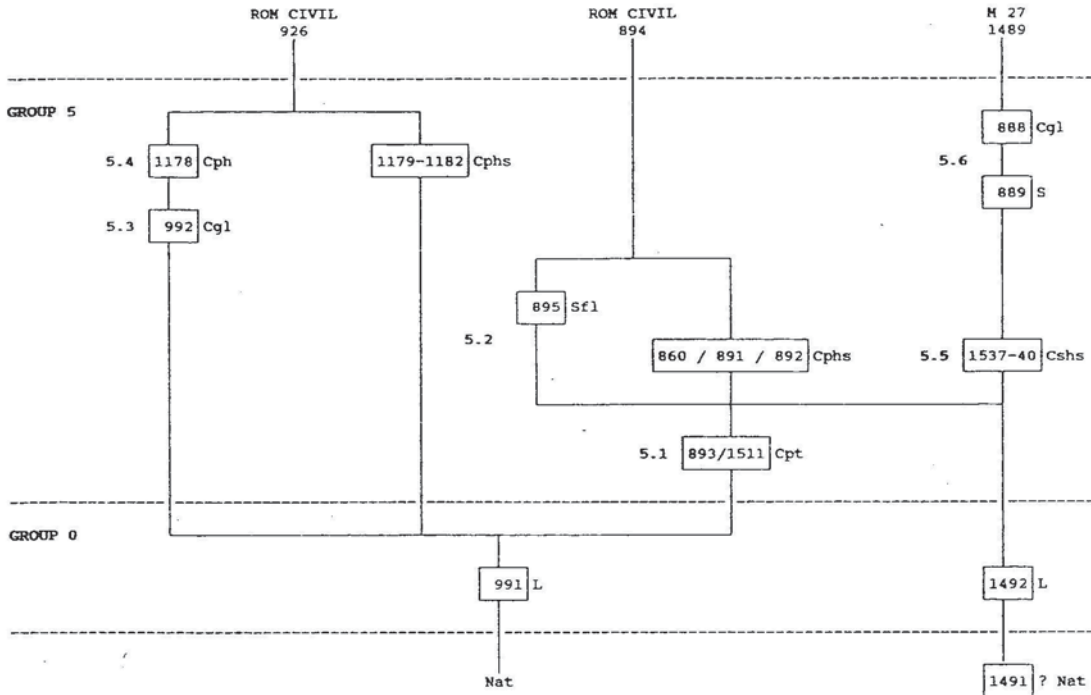


MATRIX 4

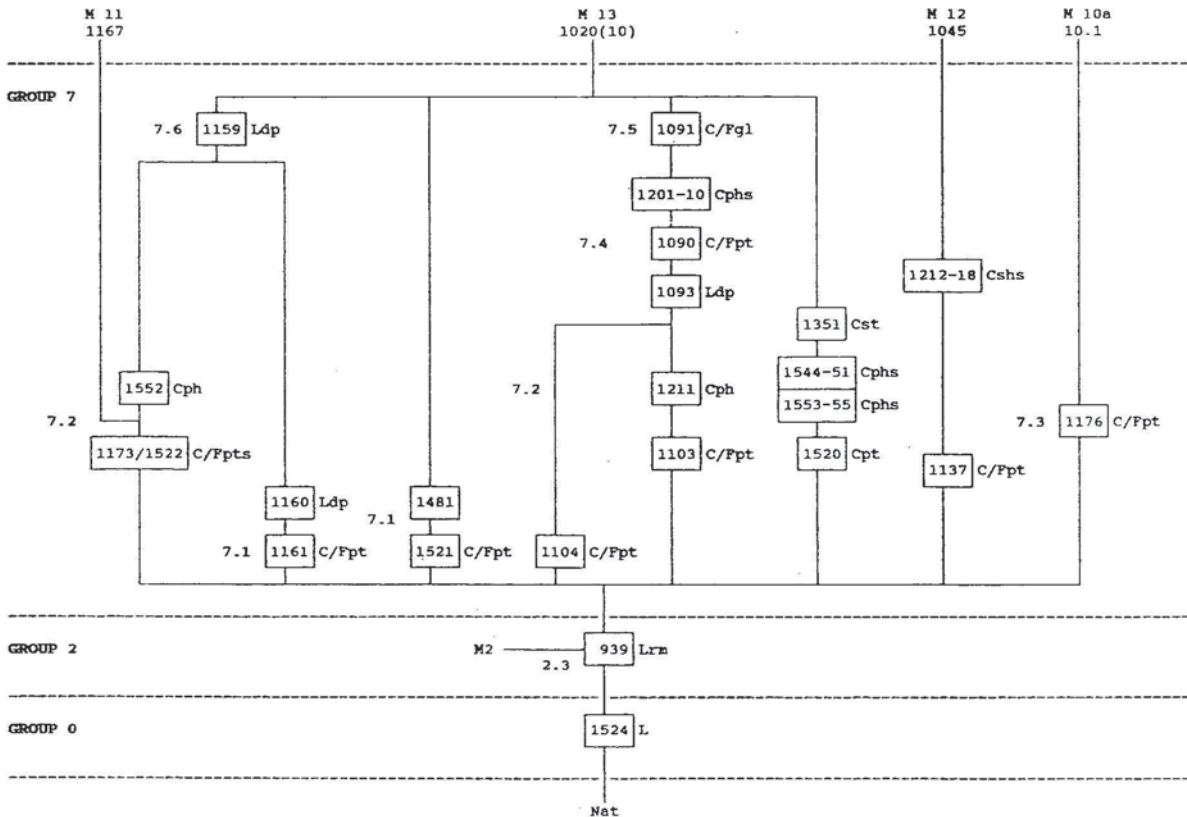




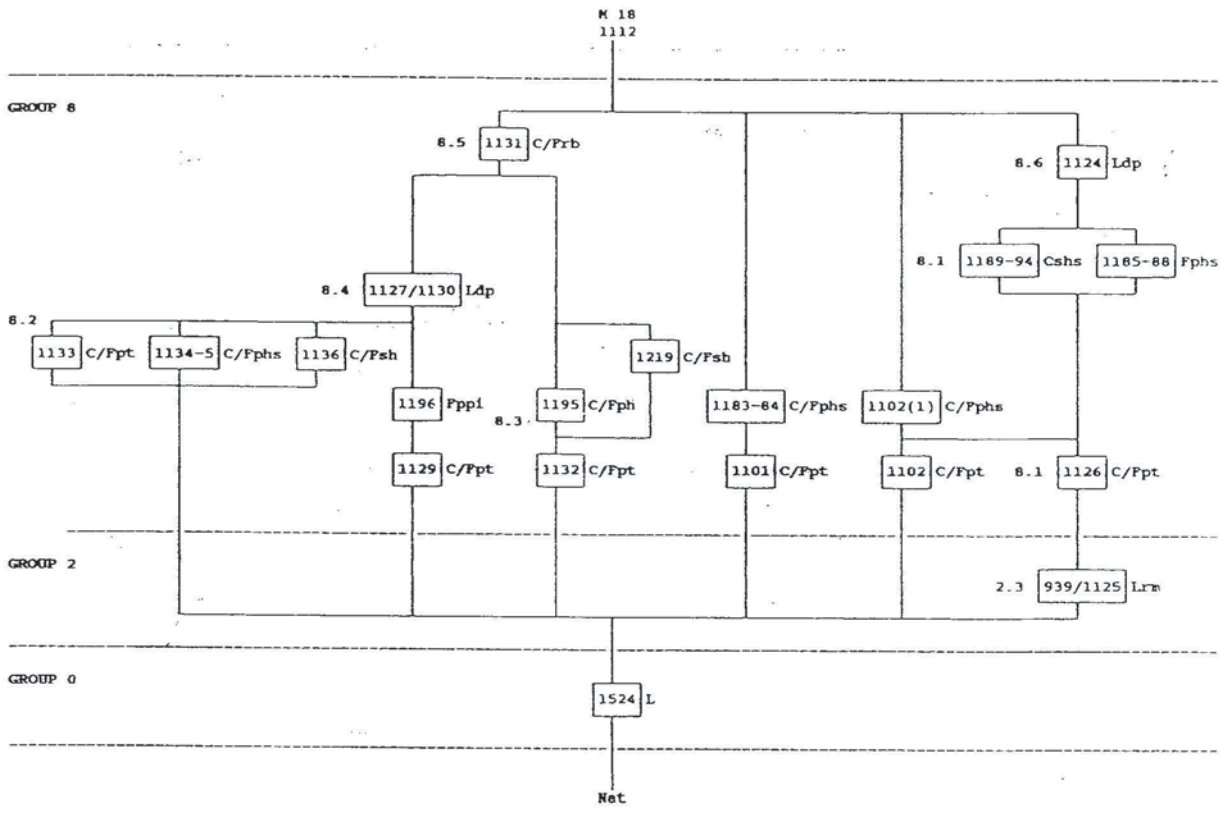
MATRIX 5



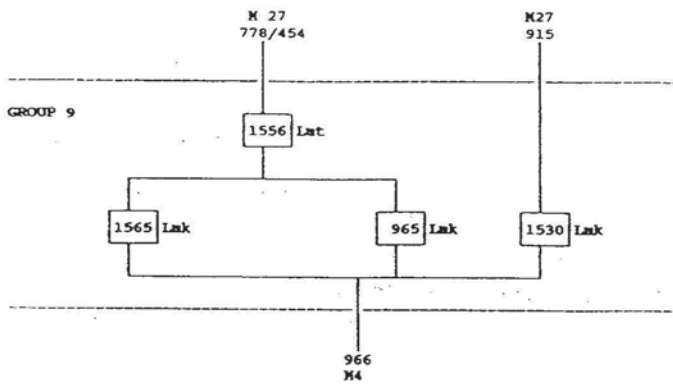
MATRIX 7 (NB MATRIX 6 NOT USED)



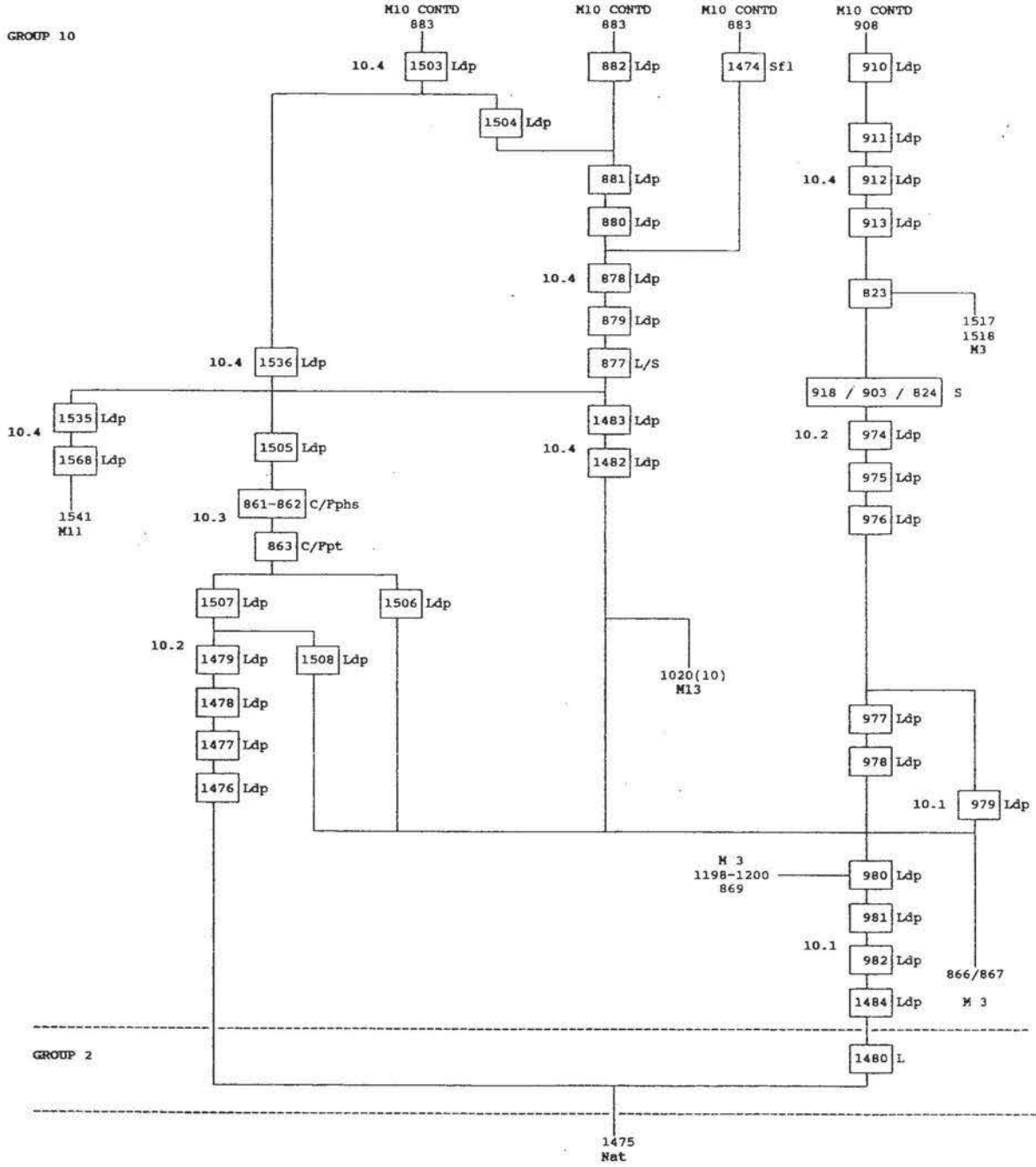
MATRIX 8



MATRIX 9

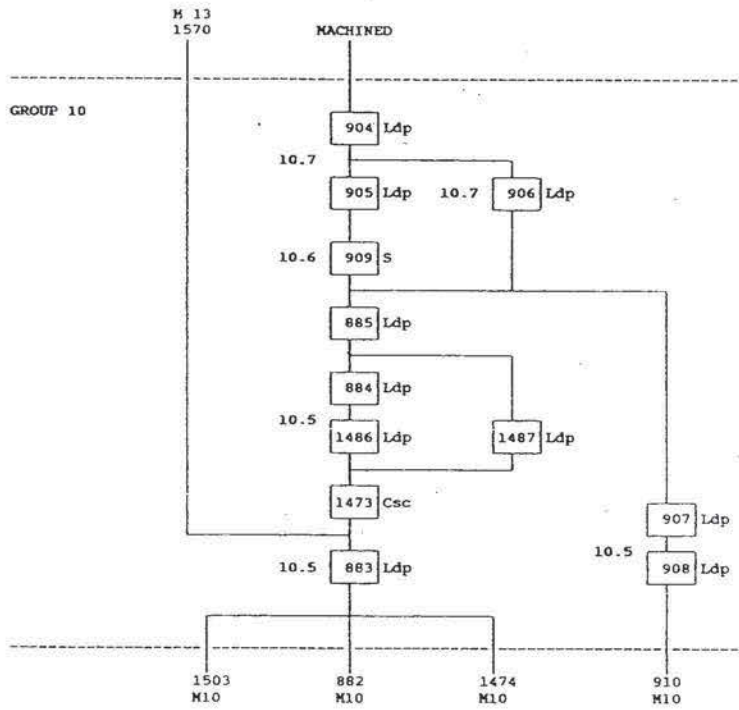


MATRIX 10 >CONTD

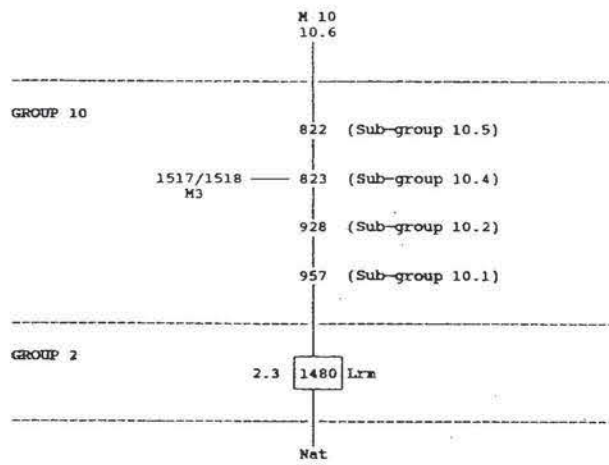




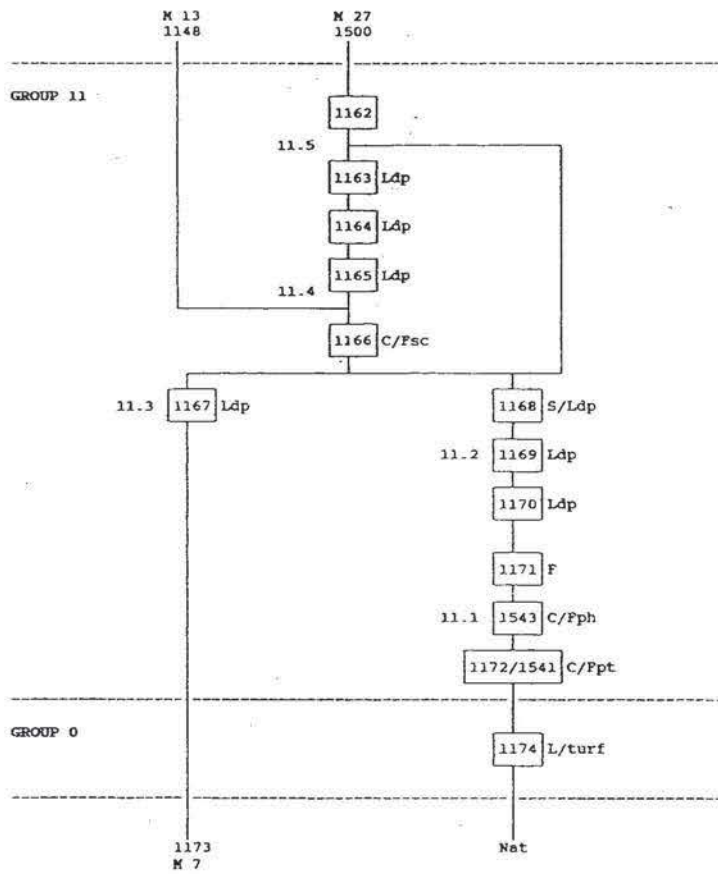
MATRIX 10 CONTD



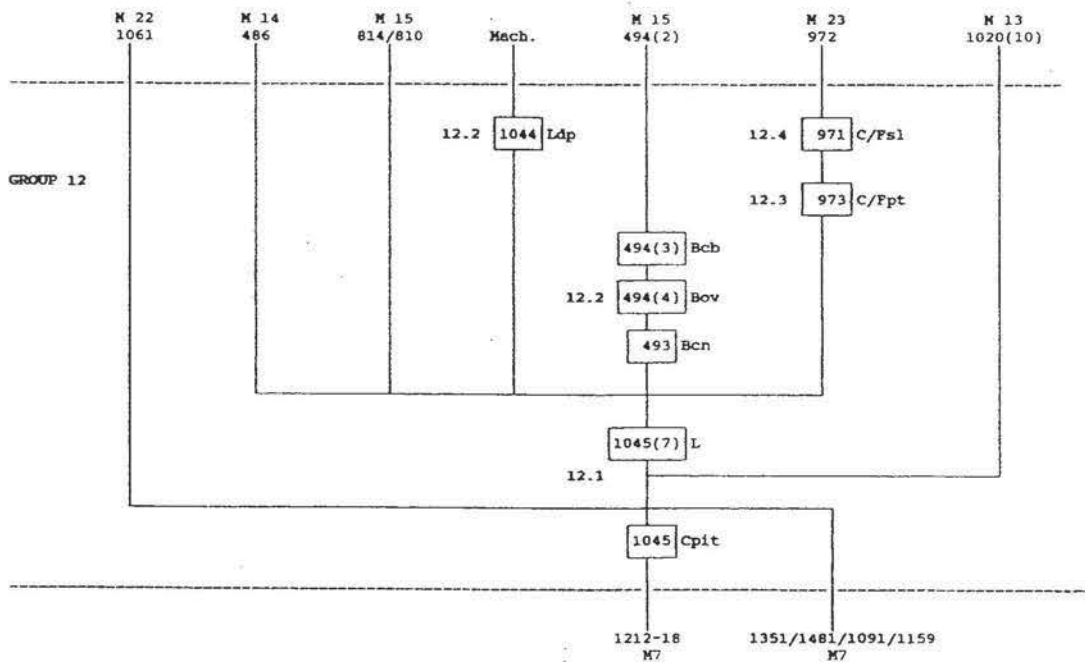
MATRIX 10a GENERIC



MATRIX 11



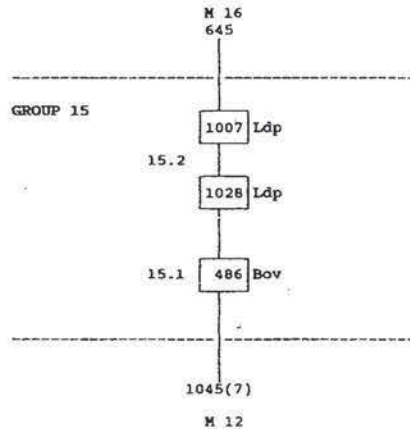
MATRIX 12



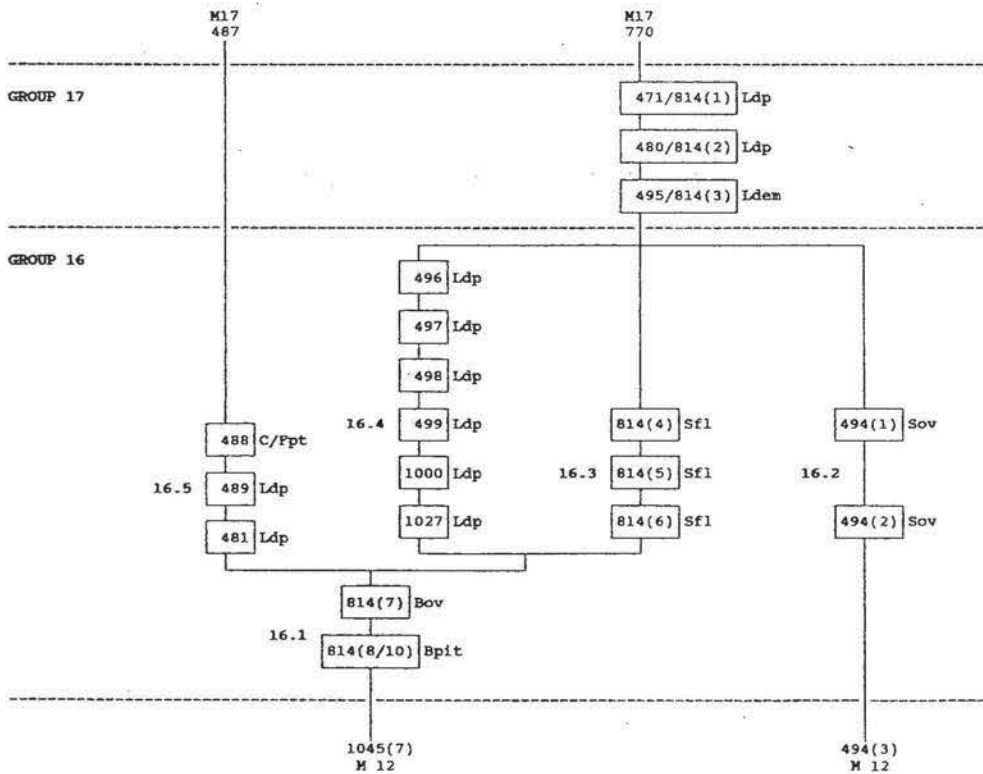




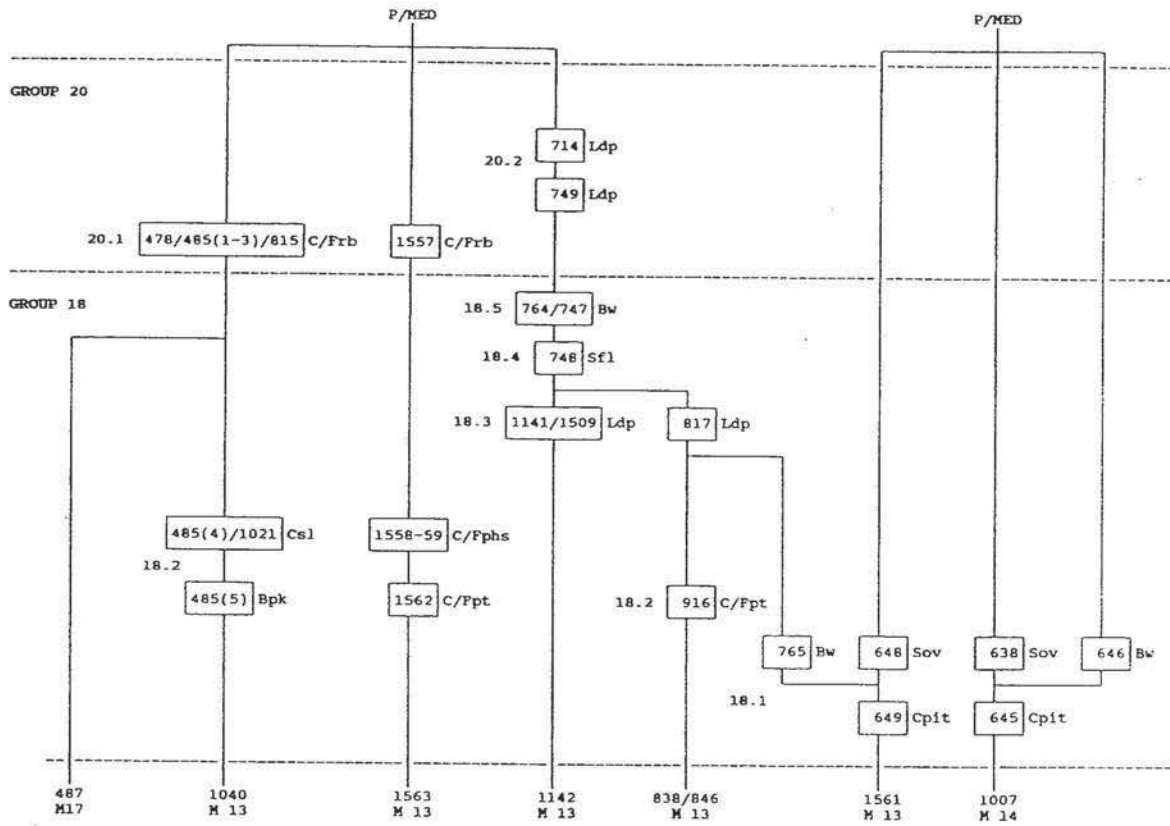
MATRIX 14



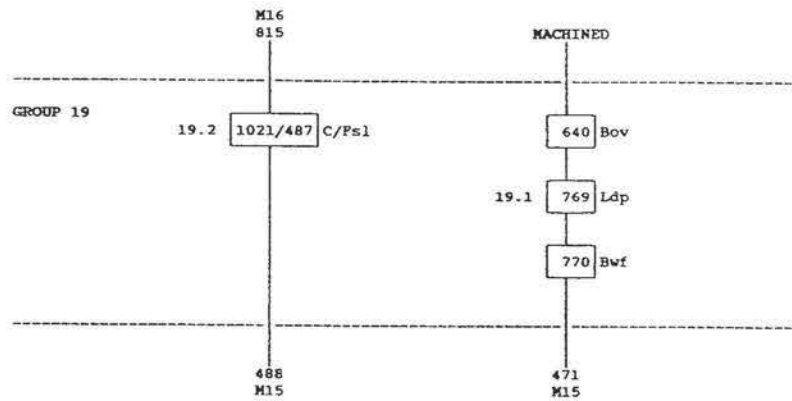
MATRIX 15



MATRIX 16

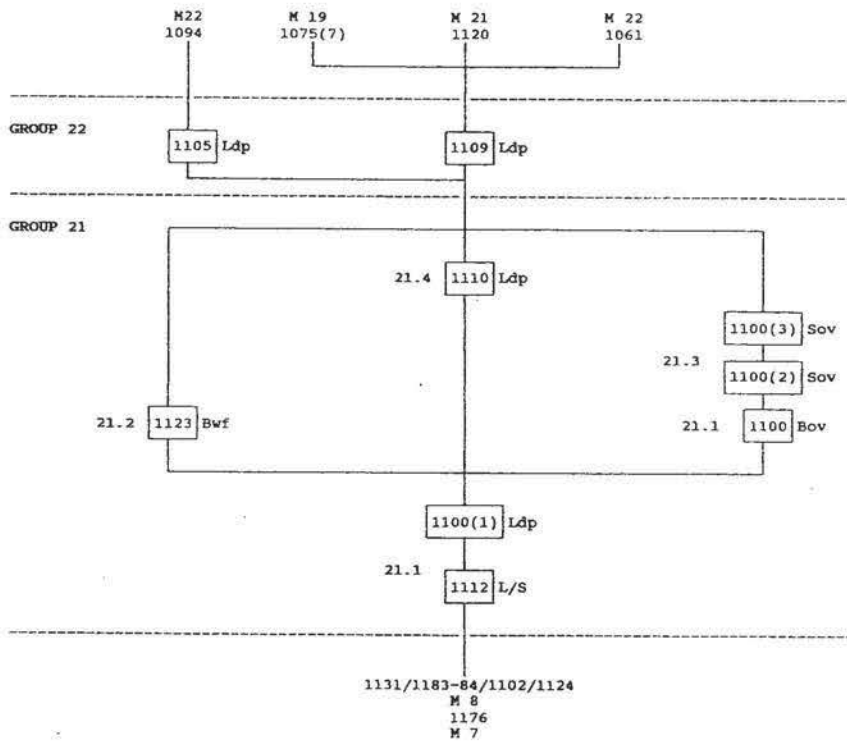


MATRIX 17

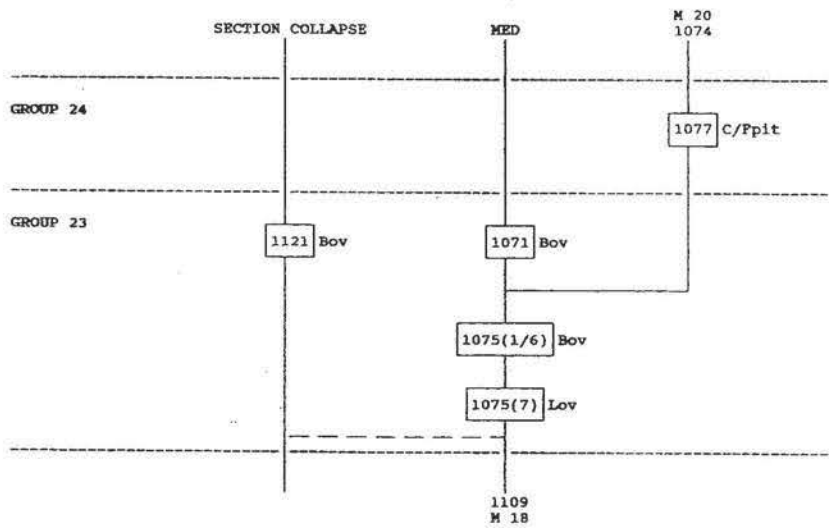




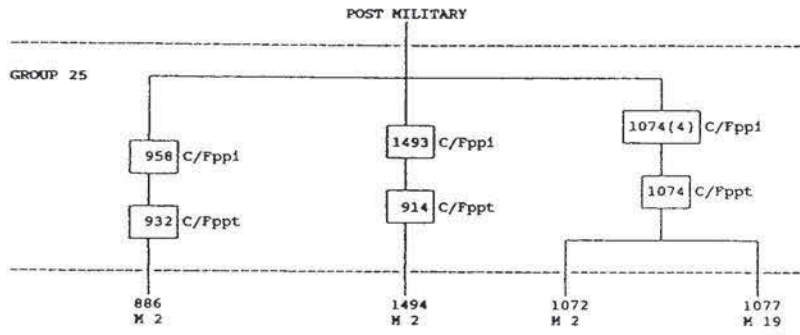
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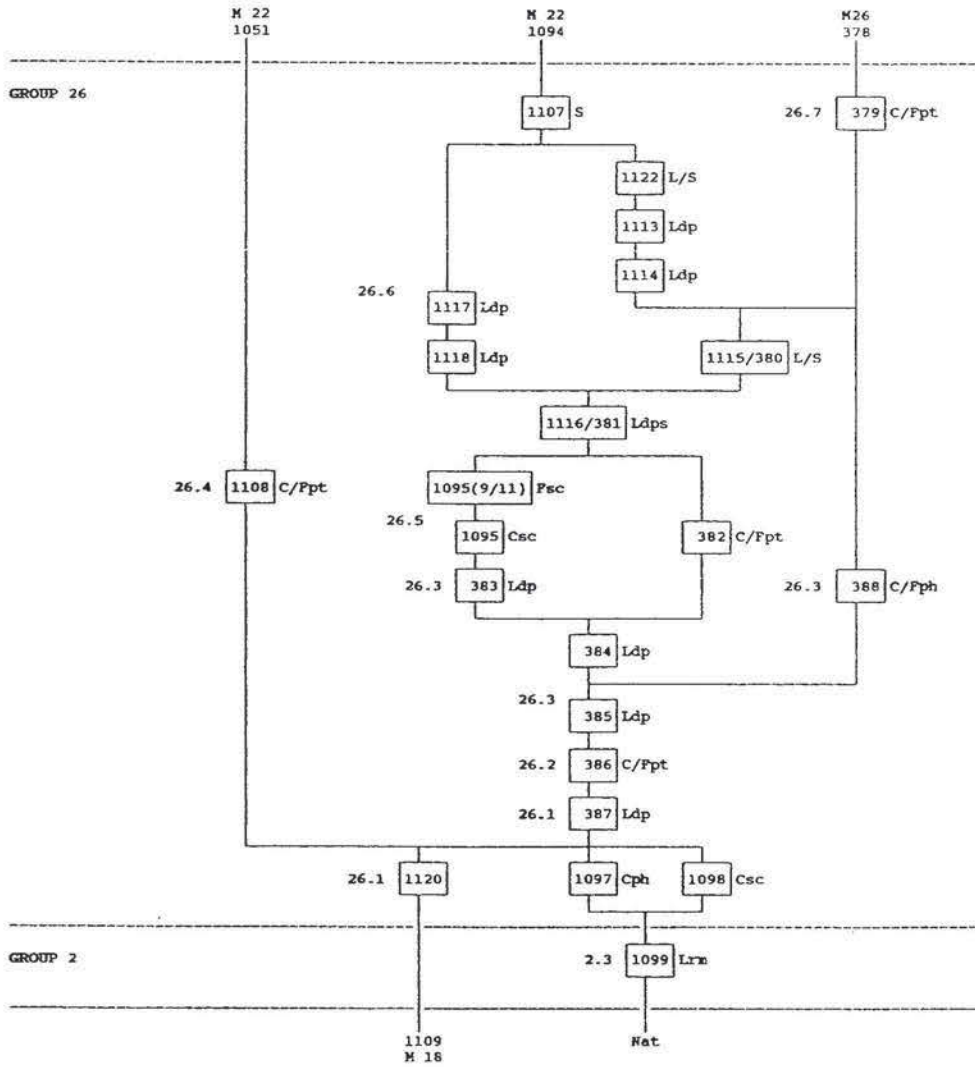
MATRIX 19



MATRIX 20

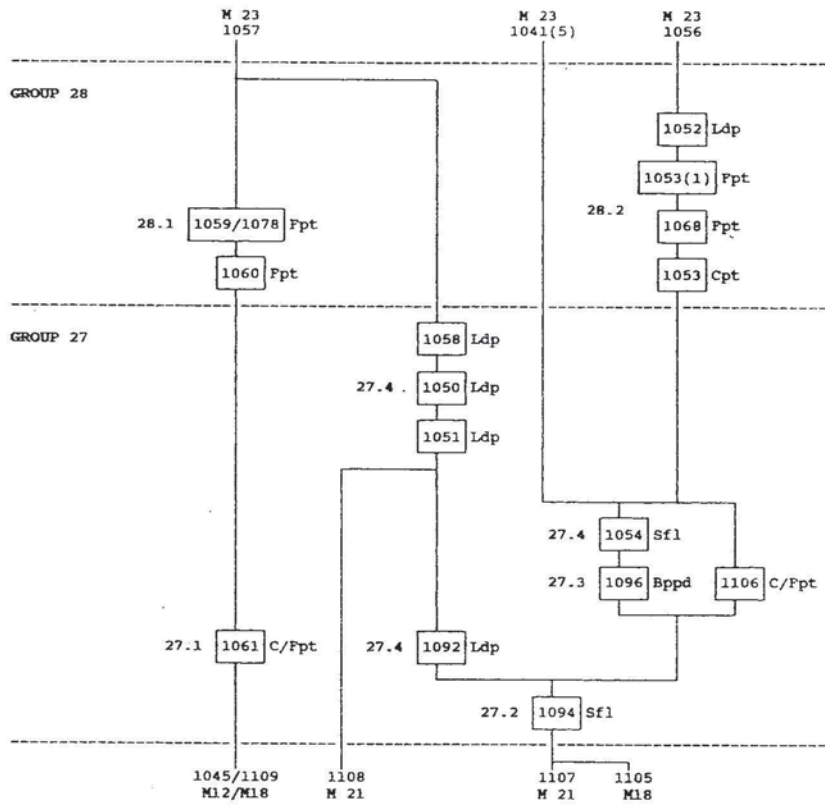


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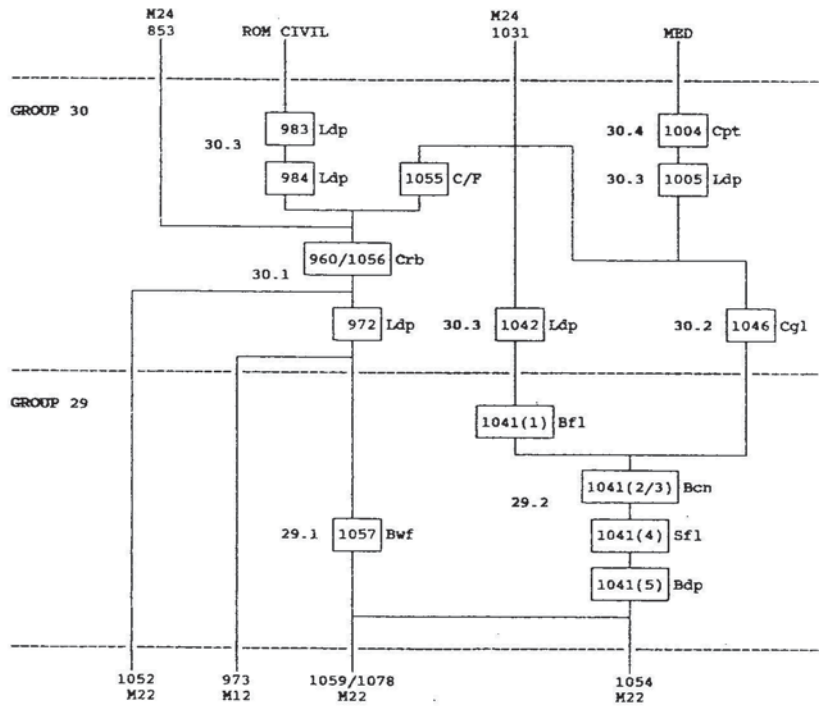




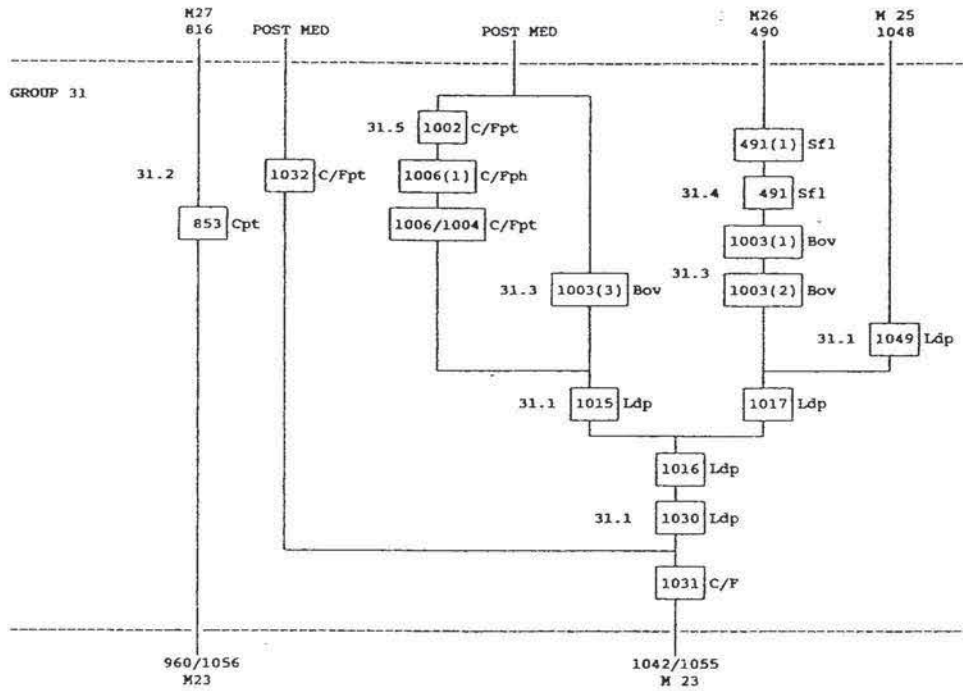
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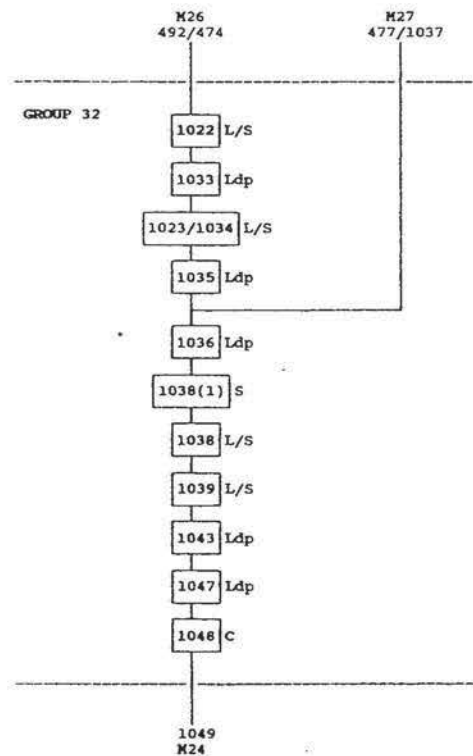
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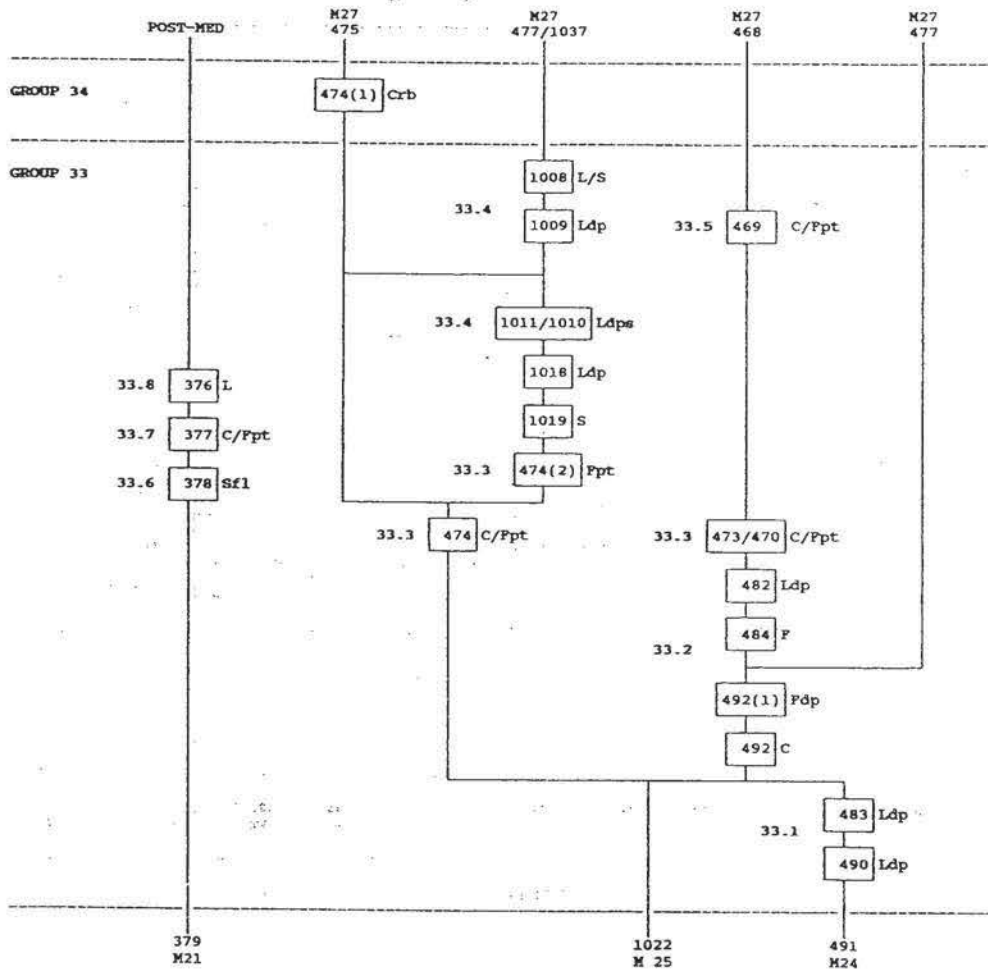
MATRIX 24



MATRIX 25

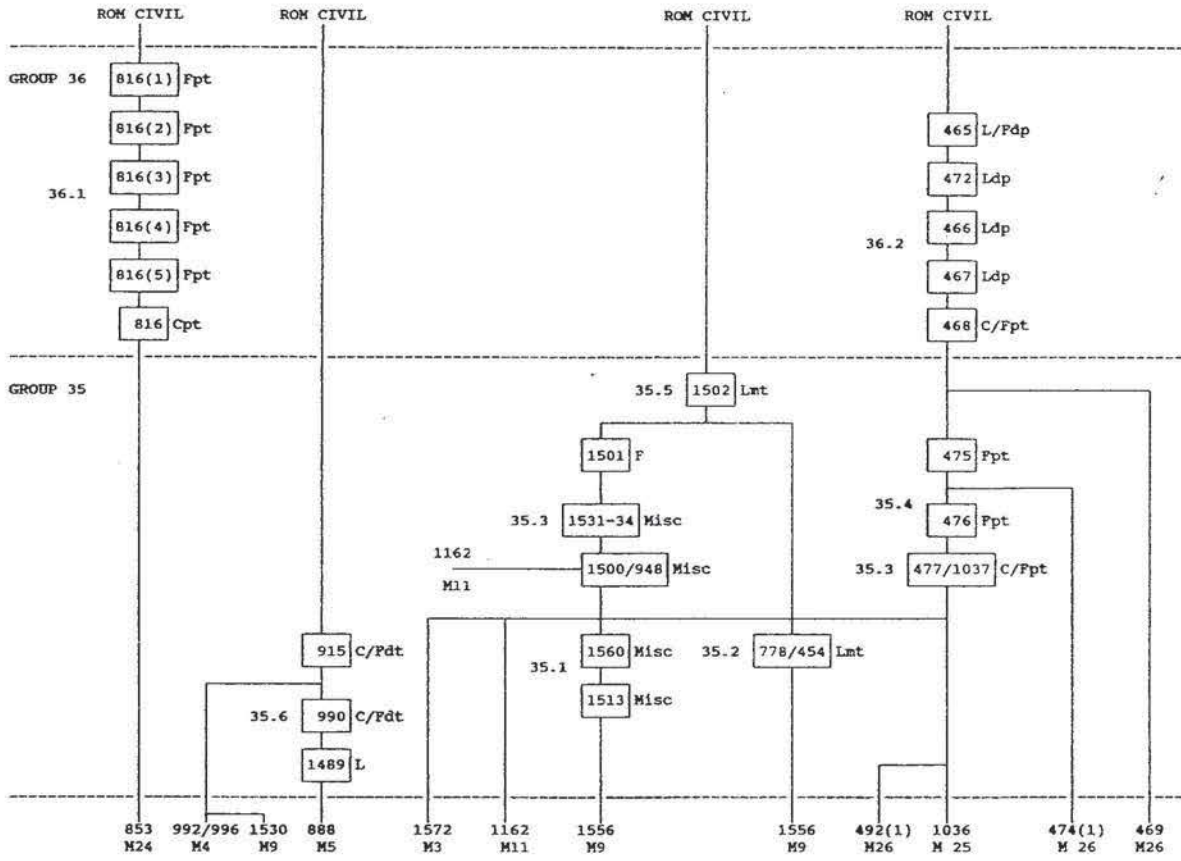


MATRIX 26

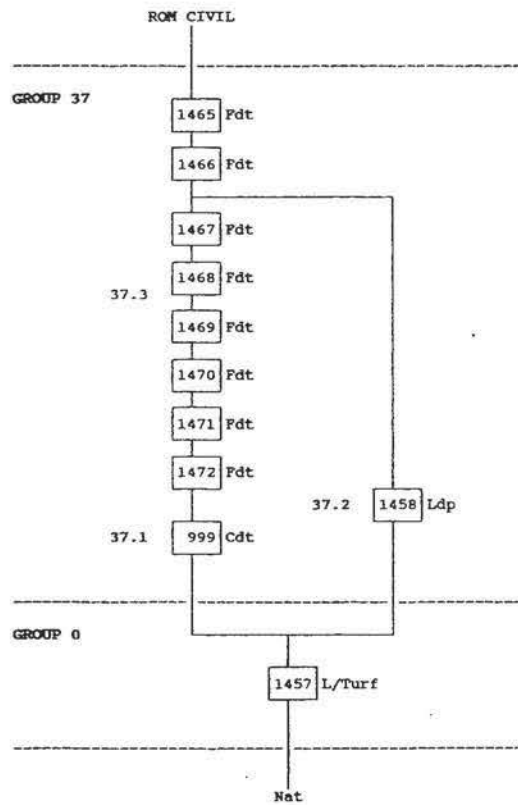




MATRIX 27



MATRIX 28



## GROUP DISCUSSIONS AND SUB-GROUP DESCRIPTIONS

### Group 0

This group was created for the turf layers and the degraded natural layers that either pre-dated the construction of the fortress or were the result of the first activity associated with its construction i.e. shrub clearance etc.

Contains contexts: 865, 988, 991, 1174, 1401, 1402, 1435, 1457, 1475, 1485, 1491-2, 1496-8, 1515, 1524.

### Group 1 (for simplified sections and plan see Figs. 4-5)

This group includes the cut and the fills of the first fortress ditch. This ditch was V-shaped in profile and was about 2m deep as excavated. It would probably have been around 3.5m in width although only about 2.5m of this width survived to be excavated. The bottom of the ditch was infilled with about 0.30m of silt (sub-group 1.2) that must have accumulated whilst the ditch was in use. Sealing this was a deposit of clays that probably represent the deliberate infilling of the ditch at the end of its life (sub-group 1.3) when it was in all probability replaced by the second fortress ditch.

Contains sub-groups: 1.1, 1.2, 1.3.

### Sub-group 1.1

Cut for primary defensive ditch, This had a V-shaped profile and cut natural.

Contains contexts: 620.

### Sub-group 1.2

During the military lifespan of the ditch an accumulation of silt formed in the central runnel at the bottom of the ditch. The runnel had a U-shaped profile at its upper surface.

Contains contexts: 396, 397, 900.

### Sub-group 1.3

This sub-group concerns the infilling of the original V-shaped ditch probably at around the time of the digging of the replacement larger punice ditch outside it. The upper layers of this infilling sequence would appear to have been dumped from the direction of the rampart into the ditch. The infills were mostly dirty yellow/orange clays. Contains contexts: 372, 896-899, 940-946, 954, 1344-1349.

## Groups 1 and 2 (Simplified Sections)

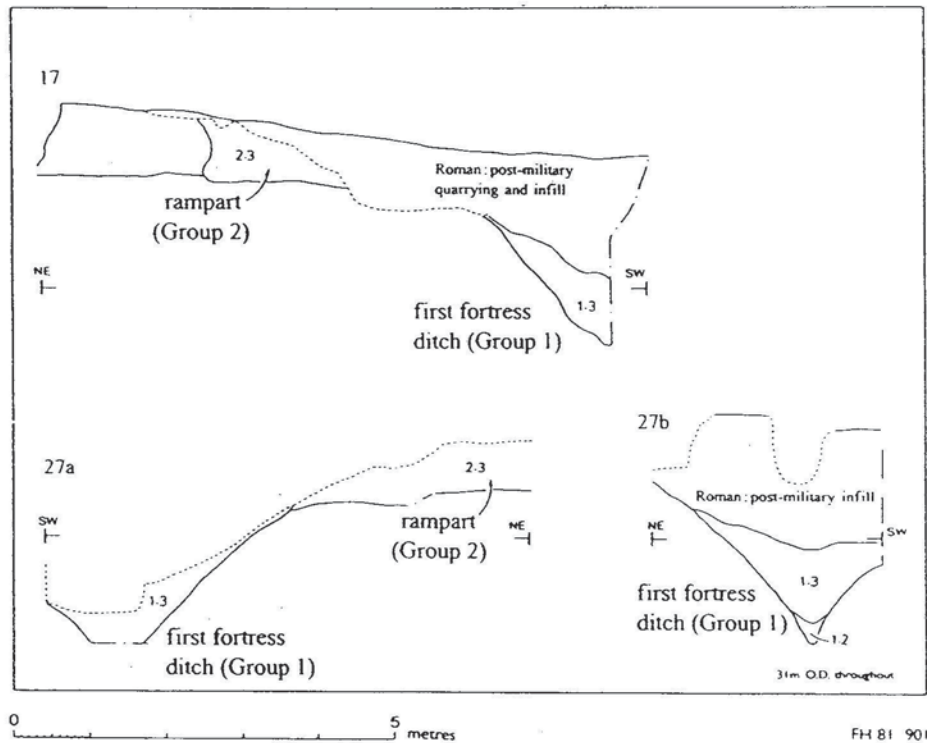


Fig. 4 Simplified sections through the early fortress defences. Scale 1: 100





**Group 2** (certain contexts from Group 2 are shown on Fig. 5)

This group is for the rampart and interval towers of the fortress defences. Evidence of the rampart was recovered over a total length of some 35m (sub-group 2.3). It consisted of a closely spaced corduroy of logs laid directly onto the pre-existing ground surface at right angles to the line of the ditch (traces of the logs survived in the form of staining). Above this was placed the body of the rampart which consisted of compacted clay within a front and rear revetment. The rampart survived in places to a height of about 1m and a width of about 4.6m. The suspected rear revetment probably consisting of a turf check was lost to later activity. The front of the rampart had suffered some damage due to quarrying similar to that recorded at Mermaid Yard (Bedford and Salvatore 1992). As a result little evidence was seen of the turf stacks that would most likely have fronted the rampart. The front of the log corduroy at the base of the rampart was seen to respect a straight line, perhaps indicating that a basal sill beam had once stood at right angles to the corduroy. The remains of a timber interval tower about 3m square were observed at the north-western end of the surviving rampart (sub-group 2.1). These remains took the form of four large post-pits that would have held the four corner posts supporting the tower; three of these post-pits were excavated. The rear two pits were in the region of 1.80m deep but were badly disturbed due to their replacement at a later stage (see Group 25 and Fig. 10). However, some detail of the original construction of the tower could be observed. It can be seen (Section 28b Fig. 22) that the front post-pit (1495) was sealed beneath the body of the rampart.  
Contains sub-groups: 2.1, 2.2, 2.3.

**Sub-group 2.1**

Evidence for the presence of two interval towers built within the body of the rampart was found. This sub-group represents the remains of one of them. Prior to the construction of the rampart itself post-pits were dug (1495, 843, 886) to take the upright timber posts. (The post-pit of 1495 and its associated post-pipe is shown in Fig. 10). The fourth post-pit of this tower was not excavated, but the post-pipe (998) was visible in the unexcavated baulk of the rampart.  
Contains contexts: 844, 843, 886, 998, 1494, 1495.

**Sub-group 2.2**

The most south-easterly interval tower at Friernhay Street at this stage was represented by post-pit (1072) only.  
Contains context: 1072.

**Sub-group 2.3**

This sub-group is for the construction of the rampart. The base of the rampart was composed of a corduroy of logs (987), the impressions of which were left in the form of staining on the pre-existing ground surface (986). This was succeeded by a large bank of clay and other material covering a depth of approximately 1m (939).  
Contains contexts: 939, 986, 987, 1099, 1125, 1480.

**Group 3** (certain contexts from Group 3 are shown on Fig. 6)

This group concerns the remains of a structure or structures in the area of the *intervallum*. Sub-group 3.1 could represent the foundations for the upper stage of an *ascensus*, a stairway leading to the interval tower in front of it. Sub-group 3.2

could represent the foundations of a lower stage of the same structure. It was clear that the post-pit 1571, which formed part of the suspected lower stage, had been inserted prior to the first surfacing of the *via sagularis* and thus presumably at an early stage in the construction of the fortress.

Contains sub-groups: 3.1, 3.2, 3.3

**Sub-group 3.1**

This sub-group concerns a series of post-holes and a post-trench (864) in the area immediately behind the rampart.  
Contains contexts: 864, 866-869, 1198-1200.

**Sub-group 3.2**

A series of post-holes that appear to be associated and form a structure. The post-pit 1571 is sealed by the first surface of the street (*via sagularis*).  
Contains contexts: 1517, 1518, 1566, 1571.

**Sub-group 3.3**

Post-pipe within post-hole 1571. The post would presumably have stood after the surface of the *via sagularis* had been laid down.  
Contains context: 1572.

**Group 4** (certain contexts from Group 4 are shown on Fig. 6)

This group incorporates two sub-groups (4.1; 4.2) that represent the *via sagularis* and the various drainage facilities to the north-east of it. Sub-group 4.1 was the earliest activity recorded immediately parallel with, and to the north-east side of the *via sagularis*. The profile of feature (996) suggests that it was more in the nature of a culvert than a ditch. This culvert must have served to channel surplus water away from the *via sagularis*. Sub-group 4.2 represents the first metalled surface of the *via sagularis*, which it should be noted, sealed one of the post-pits (1571) of sub-group 3.2. This demonstrates that the laying down of the street metalling was not a first priority in the construction of the interior of the fortress.

Contains sub-groups: 4.1, 4.2.

**Sub-group 4.1**

This sub-group concerns a culvert running parallel to the earliest surface of the street (*via sagularis*) and a gully at right angles to it. Although it ran right along the eastern edge of the street, it was stratigraphically isolated by later features; despite this it seems likely to have been associated with the surface.  
Contains contexts: 922, 996.

**Sub-group 4.2**

This sub-group is for the first laid surface of the military street (*via sagularis*) and the make-up for this surface which consisted of pebbles and gravel.  
Contains contexts: 966, 970.

**Group 5** (certain contexts from Group 5 are shown on Fig. 6)

Group 5 is for Building 1 and its associated features. The constructional elements of Building 1 are given in sub-groups 5.1-5.2. The building is suspected to have been a barrack lying parallel to the *via sagularis* (that is, *per scamna*) of which only a small part of the end *contubernium* was revealed. Sub-group 5.6 represents features external to the building including a pebble surface that existed between the building and the *via*



Groups 3-5 and 7-8

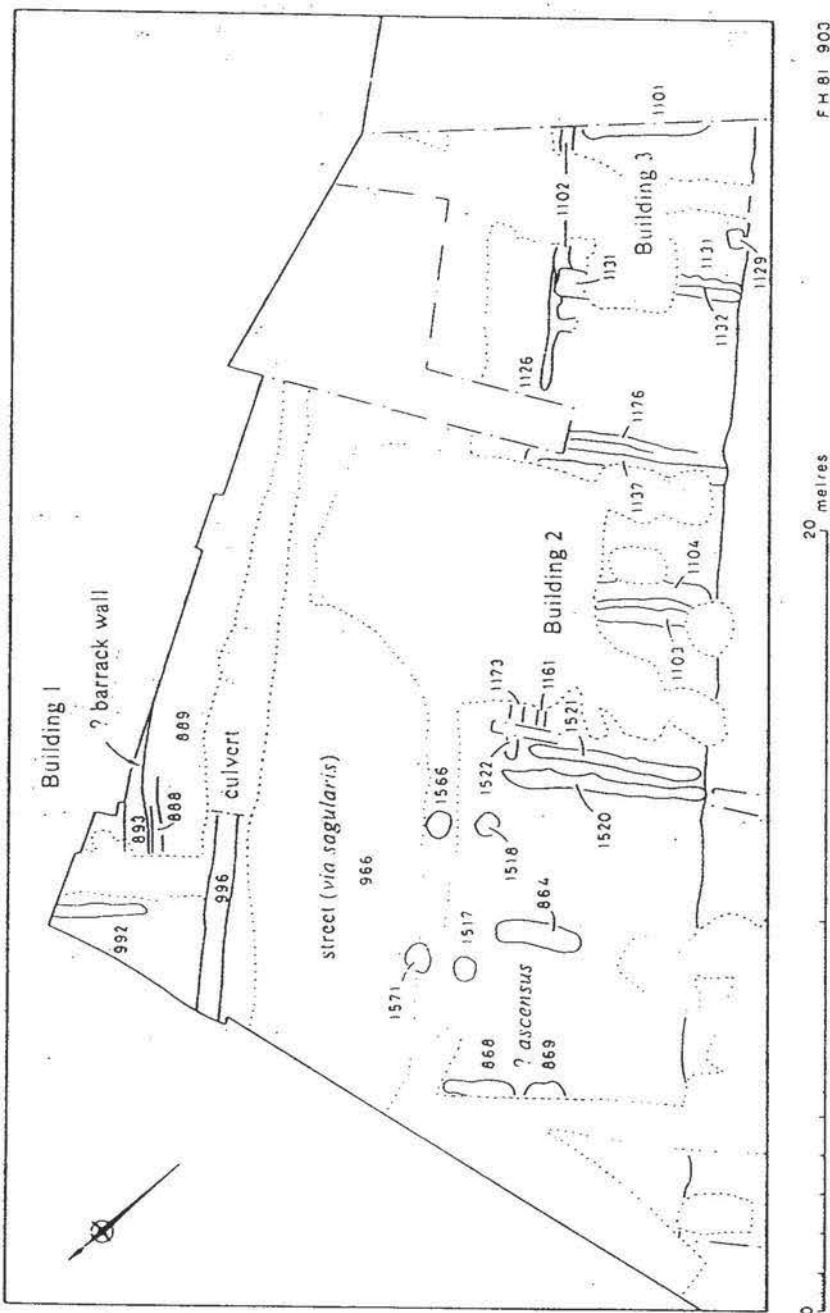


Fig. 6 Simplified plan of Groups 3-5 and 7-8 shown by reference to context. Scale 1:200.

*sagularis* to the south-west. A shallow gully at right angles to the *via sagularis* (992) may represent an eavesdrip trench associated with the gable-end of Building 1. A further gully (888) ran parallel to the suspected barrack wall.  
Contains sub-groups: 5.1, 5.2, 5.3, 5.4, 5.5, 5.6

#### Sub-group 5.1

This sub-group represents a post-trench (893/1511) together with the post-holes located within it. This structure seems likely to have formed the end of a building (Building 1); trench 893 being the south-western outer wall of this structure. The conjectural return wall to the north was cut by later features. The interior surface of this building (895) was made of firm pressed clay, laid after the construction of the walls.

Contains contexts: 860, 891-893, 895.

#### Sub-group 5.2

A clay surface that probably represents a floor within the structure described in 5.1. (Building 1).

Contains context: 895.

#### Sub-group 5.3

This represents a further gully to the north (992) which is more likely to have been an eavesdrip, running at right angles to 893, parallel to the end wall of the building.

Contains contexts: 992.

#### Sub-group 5.4

Associated(?) post-holes to the NW of Building 1. Possibly associated with the building itself, but their function remains obscure.

Contains contexts: 1178-1182.

#### Sub-group 5.5

A group of stakeholes on the SW side of the building that predated the surface (889) described in 5.6.

Contains contexts: 1537-40.

#### Sub-group 5.6

On the exterior of the post-trench 893 a pebble surface had been laid, set in fine sandy gravel (889), and in this surface, running parallel to trench 893, was a shallow gully (888). This was possibly dug along the eaves line of the building although it is very close to the wall-trench.

Contains contexts: 888, 889.

### Group 6 (For simplified section see Fig.7)

At some stage in the life of the fortress the smaller defensive ditch was replaced by a larger Punic ditch (context 160) situated just forward of it. The full width of the ditch was not seen in an undisturbed state in any of the sections but it had a truncated width of at least 5.3m. The bottom of the ditch was not reached with any certainty although a depth of at least 3m was recorded in Section 26. The outer lip of the ditch was glimpsed in Section 63 in a position outside the main excavation area. Examination of the finds from the Punic ditch at Friernhay Street suggest that it was left open in the latter years of the first century and the early years of the second century and that it accumulated standing water during this period (Straker *et al* 1984, 59). Environmental and biological samples taken from the ditch are discussed in detail in the aforementioned publication. The implications of these findings will be dealt with in the report dealing with the Roman civil deposits at Friernhay St. (EMAFU forthcoming).  
Contains context 160, 1441.

### Groups 1 and 6 (Simplified Section)

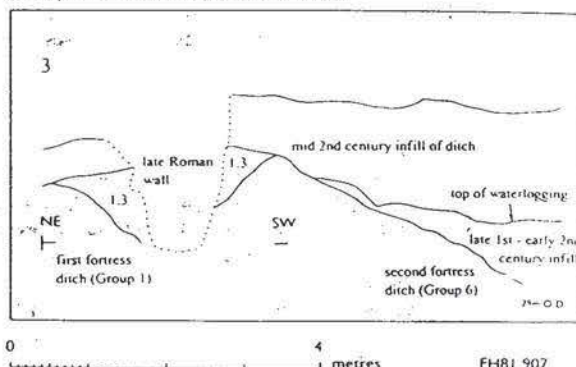


Fig. 7 Simplified section through the fortress defensive ditches. Scale 1:100.

### Group 7 (certain contexts from Group 7 are shown on Fig. 6)

This group concerns Building 2, which was constructed in the *intervallum* directly behind the rampart. A precursor of this building may have been set out without having been completed (see sub-group 7.1). The foundations of Building 2 proper consisted of a number of post-trenches that together formed a rectangular building about 9m x 5m with the longer side fronting onto the *via sagularis*. The small size of the post-holes or stakeholes observed in excavation suggest that the walls of the building were not substantial. The building was presumably constructed against the rampart with the back wall of the building formed by the rampart or its revetment wall. The building was divided into two rooms of approximately equal size each c.4.5m wide by 5m deep. Some refurbishment of this building is demonstrated by the replacement on at least one occasion of the post-trench that divided the two rooms. The building appears to go out of use to be replaced by the subsequent oven complex (see Group 10). A possible gully (1091) infilled with gravel similar to that used in the bedding of the ovens appears to have been the final feature in the sequence; if a gully it would presumably have drained into a ditch alongside the *via sagularis*.

Contains sub-groups: 7.1, 7.2, 7.3, 7.4, 7.5, 7.6.

#### Sub-group 7.1

To the rear of the rampart there was evidence for several phases of buildings. This sub-group concerns three post-trenches 1521, 1161 and 1104 defining a rectangle 4m wide by about 4.4m deep. There was no evidence of the actual emplacement of posts in these trenches, and it is a possibility that the building they were meant to define was never completed, these trenches being backfilled at an early stage. Two of the trenches, (1521, 1161) were backfilled with material that overlapped their edges.

Contains contexts: 1104, 1160, 1161, 1481, 1521.

#### Sub-group 7.2

Although not stratigraphically proven to be later than the earlier sequence of post-trenches, it seems likely that after the original trenches were backfilled, a second series was dug, (1520, 1173, 1103 and 1137), all of which produced evidence of stakeholes and supporting posts. These clearly defined a timber building (Building 2).

Contains contexts: 1103, 1137, 1173, 1211, 1212, 1351, 1520, 1522, 1553-55, 1544-51.



**Sub-group 7.3**

To the south of Building 2 was a gully, 1176, which may well have been the eavesdrip along the eaves line of trench 1173.

Contains contexts: 1176.

**Sub-group 7.4**

At some point during the life of the building the central trench, 1103, appears to have gone out of use, as it looks to have been replaced by trench 1090, which also had stakeholes, and seems to have performed a similar function to its predecessor.

Contains contexts: 1090, 1093, 1201, 1210, 1212-18.

**Sub-group 7.5**

Gully, filled with gravel similar to that used in oven construction - possibly a trench as it ran parallel to 1090.

Contains contexts: 1091.

**Sub-group 7.6**

Deposit that sealed the front wall trench 1173.

Contains context 1159

**Group 8** (certain contexts from Group 8 are shown on Fig. 6)

This group concerns Building 3 which was constructed in the *intervallum* directly behind the rampart. The earliest feature in this sequence, a post-trench (1126) fronting the *via sagularis* created a room of undefined size to the east of Building 2. A gap of approximately 1m was left between the north-western end of this trench and the side wall of Building 2 (1137), presumably for a doorway. Building 3, although not recovered in its entirety, may have been of similar size to Building 2. It was at least 5m in depth and was constructed against the rampart in the same manner as Building 2. Post-trenches of both the front and the divisional walls of this building were found (sub-group 8.3) but evidence for a likely continuation of the building to the south-east was lost to later activity. Like Building 2 it may have been divided into two rooms of approximately equal size; trench 1101 did not extend across the full depth of the building, suggesting that it was an internal rather than an external wall. Some refurbishment of the building was demonstrated by the recutting or replacement of post-trench 1132 by 1131.

Contains sub-groups: 8.1, 8.2, 8.3, 8.4, 8.5, 8.6.

**Sub-group 8.1**

To the south-east of Building 2 (sub-group 7.2) a post-trench (1126) was constructed aligned parallel with the front of Building 2. A spur off this trench at right angles to it was cut out after only a few centimetres, making it difficult to establish its final ground-plan; it was also cut out to the south-east by sub-group 8.3. This trench contained post-holes and stakeholes (1185-88 and 1189-93 respectively) and is thought to represent the front wall of Building 3 constructed alongside Building 2. This wall was at least partially replaced by 1102 (See sub-group 8.3).

Contains contexts: 1126, 1185-88, 1189-93.

**Sub-group 8.2**

Post-pit 1129 not associated with any other features but was located within a room of Building 3. Contained a post-pipe (1196). Several post-holes and stakeholes may also belong within this period of activity.

Contains contexts: 1129, 1133-36, 1196.

**Sub-group 8.3**

After the construction of 8.1, trenches 1132 and 1102 were dug as part of the Building 3 construction making it similar in design to Building 2. In this scheme trench 1101 would constitute an inner dividing wall within the building defining a room c.4m wide by 5m deep.

Contains contexts: 1101, 1102, 1102(1), 1132, 1183-84, 1195, 1219.

**Sub-group 8.4**

Subsequent to the digging of the post-trenches, two layers (1127, 1130) were dumped inside, as make-up and surfaces. These were both cut by 8.5, and stop where the rear of the building meets the rampart clays 939.

Contains contexts: 1127, 1130.

**Sub-group 8.5**

This sub-group concerns the rebuild or removal of 1132 by trench 1131 which was wider at the north-eastern end where it completely obscured any traces of 1132. To the south-west 1132 was observed in a truncated state.

Contains context: 1131.

**Sub-group 8.6**

Sub-group for deposits that post-dated Building 3 but predated oven construction.

Contains contexts: 1119, 1124

**Group 9**

This group concerns a major re-surfacing of the *via sagularis* in which a volcanic stone raft in a reddish-brown clay (1565) was set down as a make-up material for a new street surface (1556).

Contains contexts: 965, 1556, 1565.

**Group 10**

Group for a series of layers dumped behind the rampart in the area of the *intervallum*. These layers were removed very quickly in excavation. It was originally thought that all the layers comprising sub-groups 10.1-10.2 and 10.4-10.5 were part of a single operation that had taken place in order to raise the ground level in conjunction with the insertion of a thicker gravel mound (1020-10) forming the base for a series of ovens behind the rampart. In post-excavation analysis it became clear that the picture was more complicated than this. A number of layers (sub-group 10.1) laid down on the material identified as the rampart tail suggest that there was some early dumping or buildup of material to the exterior (NW) of Building 2 (see Group 7). In addition, features recorded in Group 11 indicate that some activity was taking place alongside the *via sagularis* at the same time that the main body of layers (10.2 and 10.4-10.5) were being put down. Throughout this main sequence of layers a series of adjoining pottery shards was found, supporting the contention that the dumps belonged to the same phase. Within this sequence there were some trampled surfaces (1474, 903, 824) though these were not consistent enough to suggest widespread use over a period of time, and from the appearance of 1482 (in sub-group 10.4) it would appear that they may well result from compaction during the dumping process. Significant was the fact that layers were found to contain Flavian samian thus providing a *terminus post-quem* for the oven complex (see Group 12). Some form of revetment may have existed to prevent these layers from



encroaching onto the street although this is uncertain; the remains of a post-trench and posts (sub-group 10.3) inserted during the build-up of layers between sub-groups 10.2 and 10.4 hints that something of this kind may have occurred.  
Contains sub-groups: 10.1, 10.2, 10.3, 10.4, 10.5, 10.6, 10.7.

**Sub-group 10.1** (spit number 1)

This sub-group concerns the first of four spits, this being the lowest, that were excavated in the removal of layers dumped behind the rampart. The layers in this sub-group were confined to an area to the NW of Building 2.  
Contains contexts: 982-979, 1484. Generic number 957.

**Sub-group 10.2** (spit number 2)

Contains contexts: 824, 903, 918, 974-78, 1476-9, 1505-06.  
Generic number 928.

**Sub-group 10.3**

A post-trench (863) and two post-holes (861-2) observed within the build-up of layers behind the rampart.  
Contains contexts: 861, 862, 863.

**Sub-group 10.4** (spit number 3)

Contains contexts: 877-79, 880-82, 910-13, 1474, 1482-83, 1503-04, 1507, 1535, 1536, 1568. Generic number 823.

**Sub-group 10.5** (spit number 4)

Contains contexts: 883-85, 907-08, 1473, 1486.  
Generic number 822.

**Sub-group 10.6**

Gravel surface late in the sequence of layer accumulation to the north of the oven complex.  
Contains context: 909.

**Sub-group 10.7**

Three layers dumped over surface 909 as part of the accumulation of layers dumped behind the rampart.  
Contains contexts: 904-06.

**Group 11**

This group covers a series of features and layers that were stratigraphically earlier than the first use of oven 1020 (see Group 13). This group may represent a phase of activity prior to the first use of the ovens perhaps associated with some activity alongside the *via sagularis* contemporary with the laying down of the layers in preparation for the ovens.  
Contains sub-groups: 11.1, 11.2, 11.3, 11.4, 11.5.

**Sub-group 11.1**

Post-trench (1172/1541) with post-hole (1543).  
Contains contexts: 1171, 1172/1541, 1543.

**Sub-group 11.2**

Two dump layers over 1172/1541 and a surface (1168), this last cut by the scoop (11.4).  
Contains contexts: 1168, 1169, 1170.

**Sub-group 11.3**

A dump layer over 1173, also cut by 1166.  
Contains contexts: 1167.

**Sub-group 11.4**

This sub-group comprises a scoop (1166) and the layers that fill it.  
Contains contexts: 1164-66.

**Sub-group 11.5**

Two more dump layers over those in the scoop, later cut by the water-pipe trench (1500).  
Contains contexts: 1162-63.

**Group 12** (certain contexts from Group 12 are shown on Fig. 8)

This group covers the constructional elements for Building 4 this being part of the oven complex behind the rampart; this group also includes the construction of oven 494 itself. Sub-group 12.1 represents the preparation for the ovens. This took the form of terracing into the existing deposits of the *intervallum*, the terracing ending against the back of the rampart. The cut of this terrace was not clearly observable at its northern end, where instead the exterior surface was raised in conjunction with oven construction. Terracing only took place directly beneath the oven-sites where a deep deposit of gravel was then inserted in order to act as a bedding. The first oven recognised within the complex was oven 494 (see sub-group 12.2) which may have been one of a series of four; it is unclear whether all were contemporary or were necessarily operative at the same time. This series of ovens, which includes those in Groups 13, 15 and 16, was probably protected by the elements by some kind of structure (Building 4) of which post-trench 973 may represent the foundation of a side wall (sub-group 12.3).  
Contains sub-groups: 12.1, 12.2, 12.3.

**Sub-group 12.1**

This sub-group concerns the preparation for the construction of oven 494. A terrace was cut into the underlying clays associated with the earlier post-trench buildings. Infilling this terrace was a bedding layer of gravel.  
Contains contexts: 1045, 1045(7).

**Sub-group 12.2**

The terracing was followed by the construction of the oven itself, with a base, clay walls and a cobbled underfloor base, laid directly over the gravel. Layer 1044 may be a rake-out layer associated with the use of this oven.  
Contains contexts: 493, 494(4), 494(3).

**Sub-group 12.3**

Post-trench 973, a foundation trench for a wall cut into the gravel south-east of oven 494.  
Contains contexts: 973.

**Sub-group 12.4**

A post-trench or foundation trench for a beam (971) may replace the earlier post-trench.  
Contains context: 971.

**Group 13** (certain contexts from Group 13 are shown on Fig. 8)

The sequence is much the same as that given above in Group 12. Sub-group 13.1 represents the terrace and its infill with gravel. Sub-group 13.2 is for the oven 1020. Included within Group 13 are 1570, a post-trench that probably supported the north-west end wall of Building 4 and 1040, the rear wall, which, at foundation level, may have been constructed with a beam laid into the back of the rampart rather than a post-trench. Rake-out layers associated with the use of the ovens are incorporated in sub-group 13.5. An apron wall in front of



oven 1020 was constructed of small volcanic stones (sub-group 13.6). It was probably rebuilt at least once before going out of use and subsequently becoming covered over with rake-out material.

Contains sub-groups: 13.1, 13.2, 13.3, 13.4, 13.5, 13.6.

#### Sub-group 13.1

Ovens were placed over the infilled terrace (1045, sub-group 12.1). This sub-group concerns the gravel base 1020(10) for oven 1020, similar to the bedding of gravel described in 12.1.

Contains contexts: 1020(10).

#### Sub-group 13.2

This sub-group describes the construction of oven 1020 - construction dumps were first laid over the gravel base, and then walls and the oven floor laid over them.

Contains contexts: 1020(3), 1020(6), 1020(7-9), 1140, 1154-1158.

#### Sub-group 13.3

This concerns two layers dumped as backfill behind the oven, consisting of clay sands and burnt clay.

Contains contexts: 1020(4,5).

#### Sub-group 13.4

Two trenches, one a post-trench (871/1570) and the other a trench for a beam (1040) formed the north-western side wall and rear wall respectively of a structure (Building 4) that almost certainly enclosed the ovens.

Contains contexts: 871, 1040, 1570.

#### Sub-group 13.5

This sub-group concerns the use and lifetime of the ovens. This is shown by numerous rake-outs layers and the trampled layers within a series of dumps resulting from the refuelling and emptying of the residue from the firing of ovens.

Contains contexts: 838-39, 963-64, 985, 995, 1014, 1142-43, 1145-49, 1150-53, 1175.

#### Sub-group 13.6

At some point during the life of the oven 1020 an apron wall (848/1012) was built in order to contain the area of the rake-outs. This showed some signs (847, 846) of having been rebuilt. A shallow trench for a beam or gully (1013) was also recorded.

Contains contexts: 846-848, 857, 1012, 1013.

### Group 14

The demolition of oven 1020 is indicated by the demolition layers listed in sub-group 14.2 but the building itself appears to have been regularly repaired. The end wall 1570 goes out of use at some stage and is replaced on a number of occasions prior to the final recognised to be replaced by 1562/916 (see Group 18); trench 1564 may represent the extraction of 1570.

Contains sub-groups: 14.1, 14.2, 14.3.

#### Sub-group 14.1

North-western wall of oven building removed.

Contains contexts: 1564.

#### Sub-group 14.2

Demolition of oven 1020 takes place. Deposition of clays (1561, 1563) outside the ovens.

Contains contexts: 1561, 1563.

#### Sub-group 14.3

This sub-group concerns a number of rebuilds or replacements of the NW wall of Building 4. The original trench (1570/871) displayed signs in section of having been replaced on more than one occasion. As the replacements here were recorded only in section it was difficult to get a precise understanding of their characteristics, some (874,875) had the appearance of slots for beams.

Contains contexts: 872, 873, 874, 875, 876.

Group 15 (significant contexts from Group 15 are shown on Fig. 8)

This group concerns the construction and subsequent demolition of oven 486. Like the other ovens in this sequence this oven was constructed of clay on a bed of gravel. Due to later disturbances it was less well preserved than the ovens to either side of it. The layers associated with the demolition of this oven are described in sub-group 15.2.

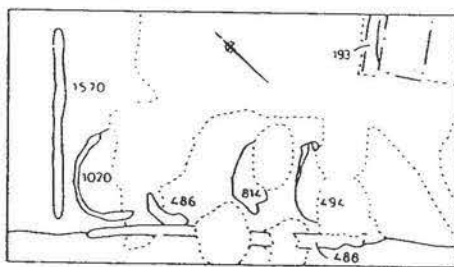
Contains sub-groups: 15.1, 15.2.

#### Sub-group 15.1

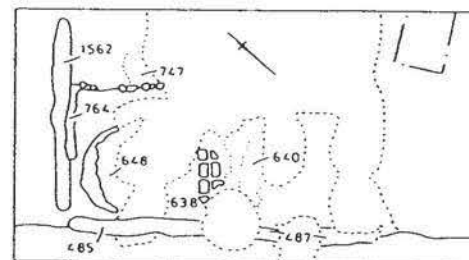
This sub-group concerns the construction of oven wall 486 which was probably paired with oven 1020 and which was constructed over the infilled gravel terrace (sub-group 12.1). The wall is constructed, like the others, from clay.

Contains contexts: 486.

Building 4 (Groups 12, 13, 15, 16)



Building 4 (Groups 18, 19)



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Fig. 8 Simplified plan of the oven development in Building 4 shown by reference to context. Scale 1: 200

**Sub-group 15.2**

After the use of oven 486, dumps were placed on the site, 1028 behind the west wall and 1007 directly over the walls of the oven.

Contains contexts: 1028, 1007.

**Group 16** (certain contexts from Group 16 are shown on Fig. 8)

Group 16 includes developments both to the internal and external arrangement of the oven complex within Building 4. An oven (814) was constructed in the space between ovens 486 and 494. At some stage this oven may have been completely rebuilt (sub-group 16.1) with this rebuild removing any trace of its predecessor. Oven 494 (see Group 12) also showed signs of some additional modifications in the form of two successive replacement floors. The floor of oven 814 was also replaced on more than one occasion (sub-group 16.3). Rake-out associated with the use of oven 814 was noted (sub-group 16.4). The rear wall foundation behind ovens 814 and 494 was different in nature to that behind oven 1020 and consisted of a deep but narrow trench (488) that may have supported posts (sub-group 16.5).

Contains sub-groups: 16.1, 16.2, 16.3, 16.4, 16.5.

**Sub-group 16.1**

This sub-group concerns the major rebuild of oven 814. 814(8-10) represent the various constructional facets of the oven and 814(7) the clay wall around the oven. This phase of rebuilding completely removed any traces of a suspected earlier oven on the same site.

Contains contexts: 814(7), 814(8-10).

**Sub-group 16.2**

This also represents a rebuild, though of a more minor nature, to 814's companion oven 494. These rebuilds take the form of two replacement floors.

Contains contexts: 494 (2,1).

**Sub-group 16.3**

This sub-group covers the time during which the oven (814) was in use, the evidence comprising three successive floor surfaces of clay inside the oven.

Contains contexts: 814(6-4).

**Sub-group 16.4**

During the use of oven 814 after its rebuild, there was an accumulation of rake-out layers nearby, to the east of both 814 and 494.

Contains contexts: 496-99, 1000, 1027.

**Sub-group 16.5**

The rear wall of the oven building in which 814 and 494 were contained is represented by 488, a deep trench, probably a post-trench, cut into the back of the rampart. This is part of Building 4.

Contains contexts: 481, 488, 489.

**Group 17**

This group represents a series of successive burnt clay layers that signify the end of the use of ovens 494 and 814(1-3). Possibly deriving from an accidental fire.

Contains contexts: 471, 480, 495, 814(1-3).

**Group 18** (certain contexts from Group 18 are shown on Fig. 8).

This group concerns the developments that were found to have taken place within the north-western oven complex (Building 4). Ovens within the complex were rebuilt to a completely new specification. This involved the digging of pits that were then infilled with stone and gravel to act as a base for the oven floors (sub-group 18.1). The oven floors were constructed not of clay as in the examples that they replaced but of re-used roofing tile (see 638/648). The more complete tiles were used for the oven floor with smaller broken pieces of tile completing the surround. It is possible that the north-western side wall of Building 4 was rebuilt at the same time with post-trench 1562 replacing 1570 and 485 replacing 1040 (sub-group 18.2). It is clear that the rear wall trench 485 supported a beam (1021) laid along its length. Activity during the life of the ovens is indicated by the rake-out layers and other features described in sub-groups 18.3-18.5. Some of these rake-out layers were found to have contained Flavian samian.

Contains sub-groups: 18.1, 18.2, 18.3, 18.4, 18.5.

**Sub-group 18.1**

This sub-group represents part of the rebuild of the north-western group of ovens (those within Building 4), the ovens being built this time in a different style. The process started with the digging of two pits (649, 645) which were filled with stone fragments and grit, on top of which a floor of large tile slabs set in dull red clay with a broken tile surround was laid in both cases (648 and 638). The superstructure of both ovens consisted in both cases of a clay-built wall (765 associated with 648 and 646 with 638).

Contains contexts: 638, 645, 646, 648, 649, 765.

**Sub-group 18.2**

This sub-group represents the replacement of walls that enclosed the ovens. The north-western side wall of Building 4 was replaced by a new post-trench (1562); 916 may be an equivalent of this trench. The rear wall (1040) was replaced by a beam (1021) packed around with clay (485-5).

Contains contexts: 485(5), 1021, 1558/59, 1562 (?916).

**Sub-group 18.3**

This sub-group represents the period during which the ovens were in use as demonstrated by 0.4m of rake-out deposits contained by apron wall 1141/1509 which cut through earlier dumps from oven 1020.

Contains contexts: 817, 1141/1509.

**Sub-group 18.4**

This represents a floor in use during the life of the oven (648) as it is cut by 764, and in places overlay areas of oven walling.

Contains contexts: 748.

**Sub-group 18.5**

The replacement of apron wall 1141/1509 by 747; this lay to the north-east of oven 648; 764 was a continuation of 747 to the north, but with a different construction technique.

Contains contexts: 747, 764.



**Group 19** (certain contexts from Group 19 are shown on Fig. 8)

This group parallels the developments in Group 18. A new oven (640) was constructed above its predecessor (814) but without the pits that characterised the ovens detailed above. It was built therefore directly onto the demolished remains of oven 814. Broken tile fragments were again utilised for the oven floor in the same manner as ovens 638 and 648. A trench (487) at the rear of this oven was almost certainly a continuation of the trench for a beam 1021 seen in Group 18. Contains sub-groups: 19.1, 19.2.

**Sub-group 19.1**

This sub-group concerns the construction of oven 640, starting with a stone and pebble base built over the demolition layers deriving from oven 814. Over this base a clay dump layer (769) was laid, and a tile surround for the oven walls (640) then constructed around these. Contains contexts: 640, 769, 770.

**Sub-group 19.2**

This constitutes a trench (487) which cut into the edge of the rampart running NW-SE, and was a probable continuation of 485. It was most likely the foundation for the replacement of the rear wall of Building 4. Contains contexts: 487.

**Group 20**

This group is for the final demolition of the north-western oven complex (Building 4). This is indicated by a number of layers extending over the former working area of the ovens (sub-group 20.2) and by the removal of the rear wall that was set into the rampart (sub-group 20.1). From the amount of charcoal and burnt clay observed in the base of the rear wall trench it would appear that this wall had suffered severe fire damage.

Contains sub-groups: 20.1, 20.2.

**Sub-group 20.1**

This sub-group represents the extraction of the beam from 487 and its continuation 485, and is represented by cut 815, which is equivalent to 478 and 485(1-3) and thus was part of the residue from the demolition of the oven buildings.

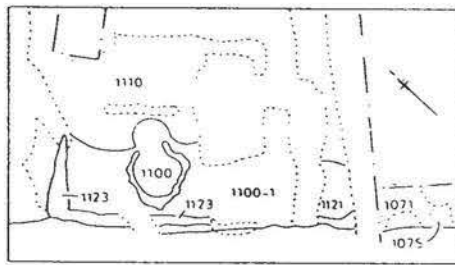
Contains contexts: 478, 485(1-3), 815, 1557.

**Sub-group 20.2**

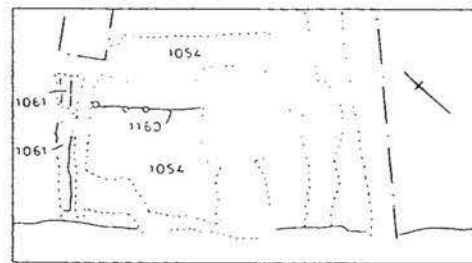
This shows the two dump layers (714, 749) that resulted from the demolition of the ovens and buildings, a mixed series of dumps spread over the earlier working areas.

Contains contexts: 714, 749.

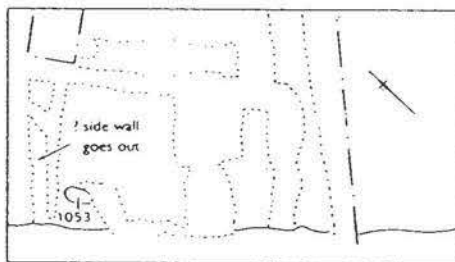
Building 5 (Groups 21, 23)



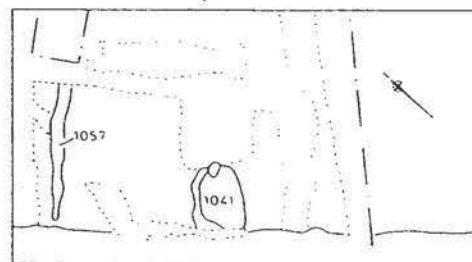
Building 5 (Group 27)



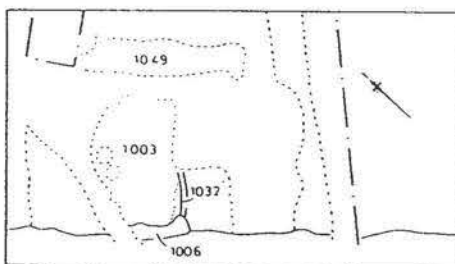
Building 5 (Group 28)



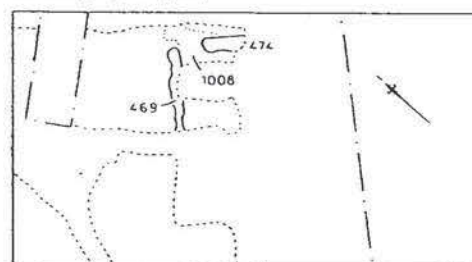
Building 5 (Group 29)



Building 5 (Group 31)



Building 6 (Group 33)



0 10 metres

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Fig. 9 Simplified plan of the developments in Building 5 shown by reference to context. Also shows simplified plan of Building 6. Scale 1: 200

**Group 21** (certain contexts from Group 21 are shown on Fig. 9)

This group is for the earliest activity associated with the south-eastern oven complex (Building 5) behind the rampart. An oven (1100) was constructed with a cobble base similar to the first ovens in the north-western oven group (cf. oven 494). To the rear and north-west side of this oven the remains of a clay-built wall were observed (21.2); this wall may have served to enclose the oven. The oven produced evidence of at least two successive floors and some rake-out material (sub-groups 21.3-21.4).

Contains sub-groups: 21.1, 21.2, 21.3, 21.4.

**Sub-group 21.1**

This sub-group concerns the construction of oven 1100 with a cobble base, clay walls, and a semi-circular clay apron at the mouth.

Contains contexts: 1100, 1100(1), 1112.

**Sub-group 21.2**

This concerns a wall foundation to the south-west of the oven 1100, cut into the back of the rampart and truncated by two later features. This was probably the rear wall, and part of the side wall, of Building 5.

Contains contexts: 1123.

**Sub-group 21.3**

This sub-group concerns a period of oven use as reflected by the presence of two probable baked clay floors for the ovens; both of these were, however, extremely patchy in extent. Contains contexts: 1100(2,3).

**Sub-group 21.4**

A dump layer, composed of rake-out from the oven which overlay the gravel base. This spread north to north-west, becoming thinner further from the oven mouth.

Contains contexts: 1110.

**Group 22**

Group for the demolition deposit sealing oven 1100.

Contains context: 1109.

**Group 23** (certain contexts from Group 23 are shown on Fig. 9)

Group for two ovens (1071 and 1121) within the south-eastern oven complex (Building 5). The ovens may have been paired.

Contains sub-groups: 23.1, 23.2.

**Sub-group 23.1**

This sub-group encompasses the construction of oven 1071. This was found, like the ovens to the north, to be constructed on a gravel base. The construction dumps and oven base were both heavily disturbed by later features and only a third of the oven remained.

Contains contexts: 1071, 1075(1-6), 1075(7).

**Sub-group 23.2**

This is a possible oven site (1121) paired with 1071, which was located in an upstand that collapsed before excavation was possible, but the oven-base resembled that of 1071.

Contains context: 1121

**Group 24**

This group is for an enigmatic feature, possibly a pit, that was dug and subsequently infilled within the south-eastern oven complex alongside and to the south-east of oven 1071.

Contains context: 1077.

**Group 25** (For simplified section of a rear interval tower post-pit see Fig. 10).

This group covers a refurbishment of the fortress defences. The rear posts of the interval towers (see Group 2) were replaced. This was accomplished by the digging of new post-pits and the insertion of new posts. One of the new post-pits (1074) was observed to have cut deposits that post-dated the construction of one of the ovens in the south-eastern oven complex. This demonstrates that the replacement of the posts here took place fairly late in the life of the fortress, presumably somewhere in the early Flavian period.

Contains sub-groups: 25.1, 25.2.

**Sub-group 25.1**

This sub-group incorporates the post-pits (914, 932) and associated post-pipes (958, 1493) that together provided evidence for the replacement of both of the rear posts of the most north-westerly interval tower on the site (see also sub-group 2.1).

Contains contexts: 914, 932, 958, 1493.

**Sub-group 25.2**

This sub-group incorporates the post-pit and associated post-pipe that together provided evidence for the replacement of one of the rear posts of the interval tower that lay partially underneath the south-eastern edge of the site (see also sub-group 2.2).

Contains contexts: 1074 (1-4).

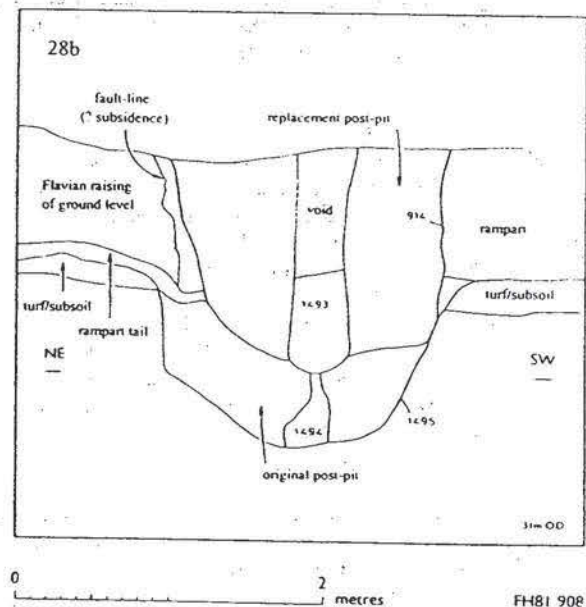


Fig. 10 Simplified section through the north-western interval tower (NE post-pit of sub-group 25.1) showing the original pit and its later replacement. Shown by reference to context. Scale 1: 50.



**Group 26**

This group concerns a period of activity within the south-eastern oven complex (Building 5) that occurred after the ovens (1071/1100/1121) went out of use. The area formerly housing the ovens was utilised for a series of floors and pits. One of these pits may have been a cesspit (sub-group 26.5) which suggests that the building may have fulfilled a variety of functions during this period. Occupation deposits were also observed on the floor surfaces (sub-group 26.6).  
Contains sub-groups: 26.1, 26.2, 26.3, 26.4, 26.5, 26.6, 26.7.

**Sub-group 26.1**

This sub-group concerns a cut made into the terrace (1120) which may form the interior of a room. The primary fill of this cut was a layer of cobbles dumped in clay. This activity is carried out after earlier ovens 1100 and 1121 have gone out of use, and when the building that housed them has been put to other uses.  
Contains contexts: 387, 1120.

**Sub-group 26.2**

This sub-group is for a trench that ran SW-NE from the edge of the rampart, and cuts 387.  
Contains contexts: 386.

**Sub-group 26.3**

This concerns the fills of post-trench 386; one layer was of cobbles in greeny yellow clay and the other was of charcoal with burnt mixed clay, both of which would seem to be material derived from oven use. Also in this sub-group is the dump layer deposited over these, with a depth of some 0.23m.  
Contains contexts: 384, 385, 383, 388

**Sub-group 26.4**

A post-trench running NE-SW but truncated by a later feature to the south-west. There is evidence of a post having been at the north-eastern end part of Building 5 (when ovens are out of use?).  
Contains contexts: 1108.

**Sub-group 26.5**

This sub-group concerns two pits, one of which was only partially recorded. The other (1095) was a possible clay-lined cesspit, with less than half surviving due to truncation. The pit was lined with clay between 0.06 and 0.08m thick, but below the clay was a square-shaped pit with rounded lower corners. This in turn superseded a circular pit with a squared lip. A thin layer of cess lapped into the squared lip and down over the primary fill of this pit which may have cut through an earlier feature; the clay lining could relate to a dump floor within 1120.  
Contains contexts: 382, 1095, 1095(9-11).

**Sub-group 26.6**

This sub-group concerns a series of floors and occupation layers within Building 5. It shows a layer with a surface (1116/381). Above this is a floor (1115/380) covered by successive occupation layers.  
Dump layers 1117 and 1118 also seal the surface of 1116/381. Layer 1107 respects the line of 1108 (sub-group 26.4).  
Contains contexts: 1107, 1113-14, 1116/381, 1115/380, 1117-18.

**Sub-group 26.7**

This represents an isolated pit which may or may not be contemporary with the other sub-groups in this group. It was cut into dumps inside the rampart within 1120, and in the fourth layer of its fill large cobbles and stones set against the cut into the rampart may represent a dwarf footing of some kind suggesting that the pit had a specialised purpose.  
Contains contexts: 379.

**Group 27** (certain contexts from Group 27 are shown on Fig. 9)

This group encompasses a series of features which suggest that a formal attempt was made to convert Building 5 from the piecemeal development that post-dated the ovens into a more functional building. A clay floor (1094) was laid over the interior sealing the rather scrappy occupation deposits that had accumulated and a new side wall on the north-western side of the building was constructed - this is indicated by trench 1061. The room, of which 1094 was the clay floor, may have been partitioned with some form of screen separating a rear area adjacent to the rampart from a forward area facing onto the *via sagularis*. This was certainly true of the next floor in the sequence (1054) which overlay 1094 (see sub-groups 27.3-27.4).  
Contains sub-groups: 27.1, 27.2, 27.3, 27.4.

**Sub-group 27.1**

This sub-group concerns a post-trench (1061) that formed a possible new side wall of Building 5. This trench was to the north-west of 1094/1054 running at right angles to the rampart. What appear to be parts of the same decorated samian bowl have come from 1092 and 1061.  
Contains context: 1061.

**Sub-group 27.2**

This represents an extensive trampled clay floor which spread to the south across the internal building division (1108, 26.4) and seems to have been the primary floor within Building 5 when 1061 was the side wall. Both 1106 and 1096 (27.3) appear to have had some function during the usage of this floor.  
Contains contexts: 1094.

**Sub-group 27.3**

This sub-group concerns the interior partition 1106 and the post-pad 1096 which appear to have been associated with 27.2. The post-pad also seems to have been in use during the life of a later floor 1054 which overlies 1094.  
Contains contexts: 1096, 1106.

**Sub-group 27.4**

This sub-group concerns the floors and occupation levels above floor 1094. Some of these (1050-51) were dumps that overlay 1054. 1054 itself overlay 1094 to the south-east of trench 1061, and respected the partition wall aligned NW-SE. It consisted of a laminated series of trodden deposits, and included clay spreads, clay sand lenses and charcoal/ash lenses all trodden over various parts of the floor. Layer 1092 (note in 27.1) was only present in the north-west corner of the earlier building.  
Contains contexts: 1050-51, 1054, 1058, 1092.



**Group 28**

This group concerns the later development of Building 5 subsequent to Group 27. The side wall 1061 was removed and its vacant trench was infilled with demolition material (sub-group 28.1). A pit was cut into floor 1054 (sub-group 28.2). Contains sub-groups: 28.1, 28.2.

**Sub-group 28.1**

This sub-group concerns a later phase of replacement in the same area as sub-group 27. 1061 (post-trench) goes out of use and is infilled with 1060 and 1059/1078, the fills of which had the appearance of oven demolition material. These fills were deposited prior to the replacement of 1061 by 1057 [29.1]. Contains contexts: 1059/1078, 1060.

**Sub-group 28.2**

In this sub-group a pit 1053 cut floor 1054, and was later infilled by three layers. This phase of activity could have been contemporary with the replacement of 1061 (27.1) although the relationship is unclear. Contains contexts: 1052, 1053, 1053(1), 1068.

**Group 29** (certain contexts from Group 29 are shown on Fig. 9)

This group signifies the return of Building 5 to its original use, that of housing ovens. The north-western side-wall was rebuilt with a foundation trench (1057) that contained small stones in its footings (sub-group 29.1). A single oven (1041) was constructed within the building (sub-group 29.2). Contains sub-groups: 29.1, 29.2.

**Sub-group 29.1**

This sub-group concerns the replacement of rear wall 1061 with 1057. This wall footing appeared above 1059 [28.1] and floor 1054 [27.4] and was composed of pebbles and volcanic stone in clay. Contains contexts: 1057.

**Sub-group 29.2**

This sub-group concerns the construction of oven 1041, constructed inside the existing Building 5 with a possible rear wall (1046) against the rampart. A gravel base (1041(5)) was laid, and over it a clay floor (1041(4)), which may have been used as a hearth. Above this was a cobble base (1041(3)) and a cobble edging (1041(2)) for the oven floor (1041(1)). After a period of use the oven was demolished. Contains contexts: 1041(1-5).

**Group 30**

This group covers a period of demolition of Building 5 and its associated oven; these demolition stages may have been contemporary. The north-western side wall of the building was removed and its trench infilled (sub-group 30.1). The rear wall of this building was also apparently removed. The oven (1041) was demolished and the degree of demolition suggests that the whole building was out of use (sub-group 30.2). Contains sub-groups: 30.1, 30.2.

**Sub-group 30.1**

This sub-group concerns the robbing of wall 1057. After some of the stones were removed a dump was heaped

against the remaining wall, and the robber trench backfilled with the same materials. Contains contexts: 960, 972, 1056.

**Sub-group 30.2**

This was a trench, possibly the rear wall of oven 1041, but more likely to relate to the demolition phase, as it cut the rear of the oven along the rampart edge. Contains contexts: 1046.

**Sub-group 30.3**

This concerns the demolition of the buildings and oven after a period of use. These layers, probably derived from the demolition, were found to overlie the whole area. Contains contexts: 983, 984, 1005, 1042, 1055.

**Sub-group 30.4**

Sub-group for an isolated and badly disturbed post-trench. Contains context: 1004.

**Group 31** (certain contexts from Group 31 are shown on Fig. 9)

This group represents the renewed use of the area of Building 5 for the housing of an oven (1003) with a cobble base following the demolition of the previous oven. The preparation for the insertion of this oven included the cutting of a terrace and the laying down of stones and cobbles as a bedding. The oven was at least partially enclosed; a post-trench to its rear (1006) and a very narrow post-trench immediately to the south-east of the oven suggest this was the case. The oven showed signs of having had its working surface replaced at least once (sub-group 31.4). It is unclear whether evidence for a beam laid within trench 1006 was primary or secondary (sub-group 31.5). Contains sub-groups: 31.1, 31.2, 31.3, 31.4, 31.5.

**Sub-group 31.1**

This sub-group concerns the digging of a terrace cut (1031), for the insertion of an oven. The terrace itself and the surrounding area were infilled (1015, 1016, 1017, 1030) in order to produce a level surface area for the construction of the oven. Contains contexts: 1031, 1030, 1015-1017, 1049.

**Sub-group 31.2**

Post-trench 1006 formed the rear wall of Building 5 when it housed the oven (1003). 1032 (post-trench) was located at right angles to wall 1006. It may represent a stake or wattle side wall to the south-east of the oven. Contains contexts: 853, 1006, 1006(1), 1032.

**Sub-group 31.3**

This sub-group covers the construction of the oven itself, which consisted of 1003(1,2) which were both part of the cobbled oven base, and 1003(3) which was the clay wall around the oven. Contains contexts: 1003(1-3).

**Sub-group 31.4**

This concerns the period of oven use, as represented by two floor surfaces inside it. The first of these lay directly over the base, and was succeeded by a second laid over it, though this was considerably more patchy in extent. Contains contexts: 491, 491(1).

Groups 35 and 36

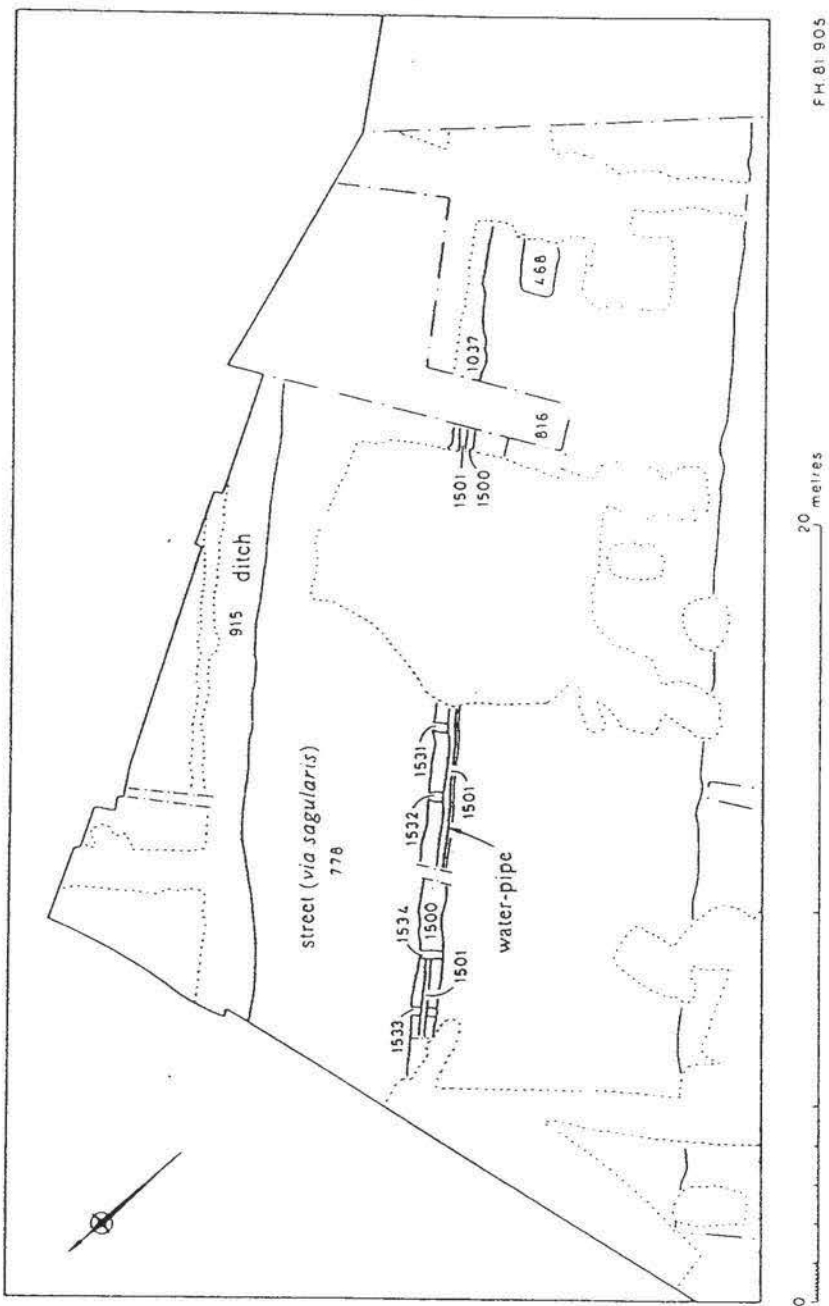


Fig. 11 Simplified plan of Groups 35 and 36 shown by reference to context. Scale 1:200.



**Sub-group 31.5**

This sub-group may represent either the later replacement of 1006 or a beam slot within this trench. It was truncated to the north-west, and lay, like 1006, to the south-west of the oven 1003.

Contains contexts: 1002.

**Group 32**

This group covers a series of layers that were found to have built-up within the vacant area created by the removal of a beam or similar from a position some 5m behind the back of the rampart. This hints at a possible wall-line that may have represented a front wall of Building 5 or at least a frontage of some nature for the building adjacent to the *via sagularis*. Contains contexts: 1022-1023, 1033-1036, 1038, 1038(1), 1039, 1043, 1047-1048.

**Group 33**

This group concerns the partial remains of a timber building (Building 6) which appears to have been constructed after the oven 1003 had gone out of use and had been demolished (see sub-groups 33.1-33.3). The building was very fragmented due to later activity but it could be observed that it had an entrance that fronted the *via sagularis*. A number of surfaces and layers were found to have been associated with this building (sub-group 33.4).

Contains sub-groups: 33.1-33.8.

**Sub-group 33.1**

Two layers/dumps, possibly representing the demolition of oven 1003, one of which (483) infilled a scarp on the west side under 482 and 484.

Contains contexts: 483, 490.

**Sub-group 33.2**

This represents a cut (492) aligned north-west to south-east. It was infilled by several layers. 484 appears to have slumped or been worked from the sides of the cut. This area of the site was heavily cut out, making interpretation of many of the features, this included, difficult.

Contains contexts: 482, 484, 492, 492(1).

**Sub-group 33.3**

This sub-group concerns Building 6. A NE-SW aligned post-trench which produced some evidence for a post-hole at both ends of the trench (470/473). Possibly associated with this feature was trench 474, which lay parallel to the street (*via sagularis*) at right angles to 470/473. An entranceway was apparent between the two wall trenches that were recognised.

Contains contexts: 470, 473, 474, 474(2).

**Sub-group 33.4**

This sub-group represents a number of surfaces and layers resulting from the use of Building 6. 1008 was a dump with trodden surface underlain by 1009, and it formed the probable entrance to the building from the road. 1011/1010 was a later surface of clay and charcoal pressed onto and between flat cobbles, underlain by 1018. Under 1018 in turn was 1019, a surface of volcanic stones rounded on their upper faces due to wear and set into the underlying clay.

Contains contexts: 1008-9, 1011/1010, 1018-19.

**Sub-group 33.5**

This concerns the replacement of the side wall of Building 6 (470/473) with trench 469.

Contains contexts: 469.

**Sub-group 33.6**

This is a possible floor surface under 376. Trampled clay.

Contains contexts: 378.

**Sub-group 33.7**

Cut and fill of a post-trench, steep-sided and narrow, which cut 378.

Contains contexts: 377.

**Sub-group 33.8**

A dump layer over 377 that also infilled it.

Contains contexts: 376.

**Group 34**

Group 34 represents a stage of robbing of Building 6 in which the suspected beam of 474 which lay parallel to the street is removed.

Contains context: 474-1.

Group 35 (certain contexts from Group 35 are shown on Fig. 11)

This group concerns later re-surfacing of the *via sagularis*, the features associated with the insertion of a water-pipe along the south-west length of the *via sagularis* closest to the *intervallum*, and the ditches on the opposite side of the *via sagularis*. The water-pipe itself was no longer in place when excavation took place but the presence of a void running along its former course together with some evidence of pipe-collars were sufficient to show where the pipe once lay. There is some evidence to suggest that the water-pipe was replaced on at least one occasion; traces of an earlier suspected water-pipe trench were observed. The trench for the insertion of the water-pipe (1500) cut a re-surfacing of the *via sagularis* (778) suggesting that this operation took place late in the military sequence. This is confirmed by a further finding of the trench (477/1037) in a position where it cut deposits that post-dated the life of one of the ovens. Two ditches (915, 990) that might be dated late in the Roman military period ran along the north-eastern flank of the *via sagularis* although there is some doubt as to whether the later ditch (915) was military or civil. If it was military it must have been open at the very end of the military sequence; pottery recovered from its infill was deposited late in the military or early in the civil period. Contains sub-groups: 35.1, 35.2, 35.3, 35.4, 35.6

**Sub-group 35.1**

The original water-pipe trench (1513), which was subsequently cut by the replacement trench 1560. These lay along the west side of the *via sagularis* and appear to have been inserted late in the military life of the road.

Contains contexts: 1513, 1560.

**Sub-group 35.2**

This represents a resurfacing of the *via sagularis*. The surface was metalled, consisting of small pebbles compacted onto volcanic stone chippings, with the larger pebbles at the edge not as compacted.

Contains contexts: 778/454.



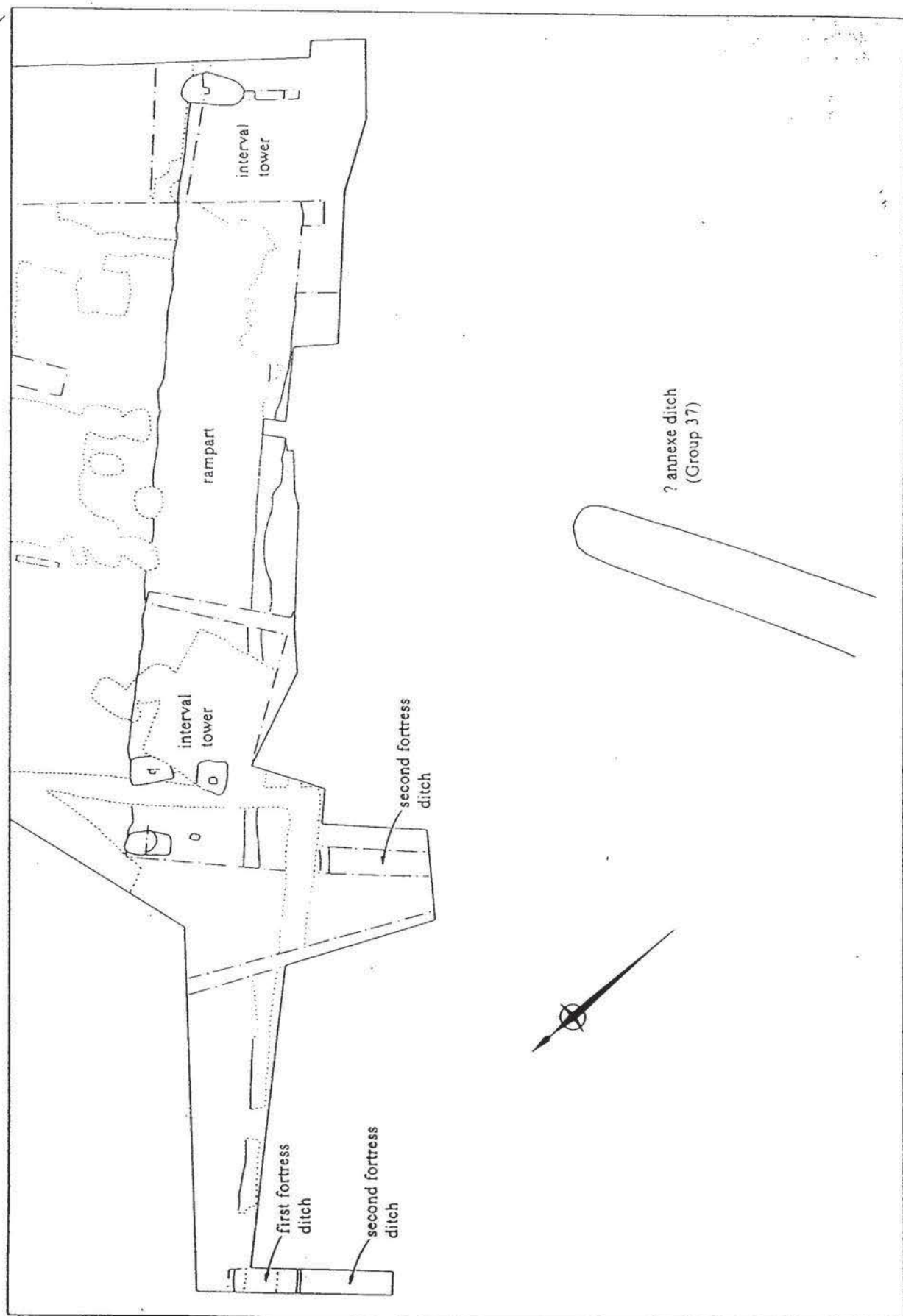


Fig.12 Plan of Group 37 the ?annexe ditch shown in relation to the fortress defences  
Scale 1:250

**Sub-group 35.3**

This sub-group represents the final water-pipe trench with the struts. 1500 was the replacement of 1560. Volcanic stones were laid either side of the pipe, but not consistently along its length. 477/1037 represents a continuation of 1500 to the south-east. Within 1500 a series of water-pipe collars or struts were found (1531-34) at right angles to the pipe and thus supporting it. Contains contexts: 477/1037, 1501, 1500/949, 1531-34.

**Sub-group 35.4**

This sub-group contains those layers which were dumped over the water-pipe trench. 475 dipped into water-pipe trench 477 above 476 where it became more silty, and 476, under 475, filled 477, spreading from the roadside. Contains contexts: 475, 476.

**Sub-group 35.5**

This concerns a patching on the surface of the *via sagularis* which also overlay the infilled water-pipe trench 1500, showing that it occurred relatively late in the military sequence.

Contains contexts: 1502.

**Sub-group 35.6**

This sub-grouping is for the roadside ditches found on the north-eastern side of the *via sagularis*. Ditch 915 cut out most of the underlying ditch 990 and flanked the *via sagularis*. It was infilled with rubbish deposits that included Flavian samian and one later Flavian sherd.

Contains contexts: 915, 915 (1-5), 990.

**Group 36** (certain contexts from Group 36 are shown on Fig. 11)

This group concerns two pits that occur late in the Roman military sequence. One of these pits (468) cuts through the entranceway of Building 6 (see sub-group 36.2).

Contains sub-groups: 36.1, 36.2.

**Sub-group 36.1**

This sub-group contains pit 816 and its infills to the north-east of the ovens - it cut 853 (sub-group 31.2).

Contains contexts: 816, 816(1-5).

**Sub-group 36.2**

This sub-group concerns pit 468 and its fills. This may belong to the later military phase. It cut through the entrance of the timber building (Building 6). It lay below 467 and 465 but over the dump layers above the timber building. This sub-rectangular pit had clean yellow clay packed against the sides in places and may have been recut or partially filled during its life.

Contains contexts: 465(462), 466, 467, 468.

**Group 37** (For simplified plan of this ditch in relation to the fortress defences see Fig. 12. For simplified section see Fig. 13)

This group is for a ditch, running approximately NE to SW, that was found exterior to the fortress defences (about 4.5m SW of the second fortress ditch). The ditch had a V-shaped profile but with a narrow flat bottom just over 0.30m wide. The width of the ditch was 3.6m and the depth 1.84m. The lower fill of the ditch was found to have contained pre-Flavian samian but it appears to have remained open into the mid second century before being finally filled in.

The ditch may represent the defences of an annexe of the fortress on its south-western side.

Contains contexts: sub-groups 37.1, 37.2, 37.3.

**Sub-group 37.1**

This sub-group is for the cut of the ditch only.

Contains context: 999.

**Sub-group 37.2**

This sub-group is for a layer of clay (1458) that might represent the upcast material from the digging of the ditch.

Contains context: 1458.

**Sub-group 37.3**

A sub-group for the fills of the ditch that are thought on the basis of pottery evidence to have occurred in the pre-Flavian period. The bottom three layers (1470-1472) were observed to contain many more stones than the layers above them but it is at present unclear exactly where the interface between the pre-Flavian layers and the post-military deposits occurs. As a result some post-military layers may have been inadvertently included on Matrix diagram 28 within this sub-group.

Contains contexts: 1465, 1466, 1467, 1468, 1469, 1470, 1471, 1472.

Group 37 (Simplified section)

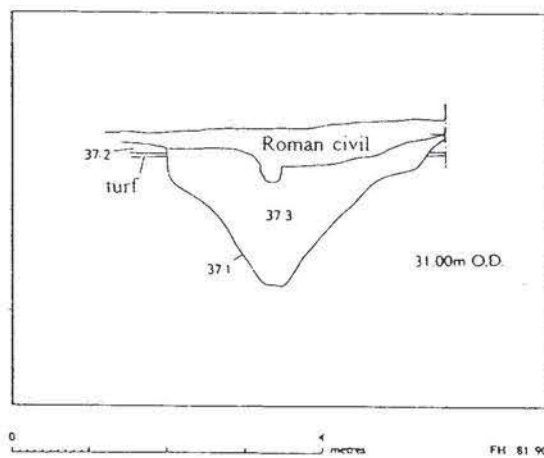


Fig. 13 Section through the ?annexe ditch. Shown by reference to sub-group. Scale 1:100.

## GROUP / MATRIX INDEX

| <i>Context</i> | <i>Group</i> | <i>Matrix</i> | <i>Context</i> | <i>Group</i> | <i>Matrix</i> | <i>Context</i> | <i>Group</i> | <i>Matrix</i> |
|----------------|--------------|---------------|----------------|--------------|---------------|----------------|--------------|---------------|
| 160            | 6            | 1             | 646            | 18.1         | 16            | 891            | 5.1          | 5             |
| 372            | 1.3          | 1             | 648            | 18.1         | 16            | 892            | 5.1          | 5             |
| 376            | 33.8         | 26            | 649            | 18.1         | 16            | 893            | 5.1          | 5             |
| 377            | 33.7         | 26            | 714            | 20.2         | 16            | 895            | 5.2          | 5             |
| 378            | 33.6         | 26            | 747            | 18.5         | 16            | 896            | 1.3          | 1             |
| 379            | 26.7         | 21            | 748            | 18.5         | 16            | 897            | 1.3          | 1             |
| 380            | 26.6         | 21            | 749            | 20.2         | 16            | 898            | 1.3          | 1             |
| 381            | 26.6         | 21            | 764            | 18.5         | 16            | 899            | 1.3          | 1             |
| 382            | 26.5         | 21            | 765            | 18.1         | 16            | 900            | 1.2          | 1             |
| 383            | 26.3         | 21            | 769            | 19           | 17            | 903            | 10.2         | 10            |
| 384            | 26.3         | 21            | 770            | 19           | 17            | 904            | 10.7         | 10            |
| 385            | 26.3         | 21            | 778            | 35.2         | 27            | 905            | 10.7         | 10            |
| 386            | 26.2         | 21            | 814(1)         | 17           | 15            | 906            | 10.7         | 10            |
| 387            | 26.1         | 21            | 814(2)         | 17           | 15            | 907            | 10.5         | 10            |
| 388            | 26.3         | 21            | 814(3)         | 17           | 15            | 908            | 10.5         | 10            |
| 396            | 1.3          | 1             | 814(4)         | 16.3         | 15            | 909            | 10.6         | 10            |
| 397            | 1.3          | 1             | 814(5)         | 16.3         | 15            | 910            | 10.4         | 10            |
| 454            | 35.2         | 27            | 814(6)         | 16.3         | 15            | 911            | 10.4         | 10            |
| 465            | 36.2         | 27            | 814(7)         | 16.1         | 15            | 912            | 10.4         | 10            |
| 466            | 36.2         | 27            | 814(8-10)      | 16.1         | 15            | 913            | 10.4         | 10            |
| 467            | 36.2         | 27            | 815            | 20.1         | 16            | 914            | 25           | 20            |
| 468            | 36.2         | 27            | 816            | 36.1         | 27            | 915            | 35.6         | 27            |
| 469            | 33.5         | 26            | 816(1-5)       | 36.1         | 27            | 916            | 18.2         | 16            |
| 470            | 33.3         | 26            | 817            | 18.3         | 16            | 918            | 10.2         | 10            |
| 471            | 17           | 15            | 822            | 10.5         | 10a           | 922            | 4.1          | 4             |
| 472            | 36.2         | 27            | 823            | 10.4         | 10/10a        | 928            | 10.2         | 10a           |
| 473            | 33.3         | 26            | 824            | 10.2         | 10            | 932            | 25           | 20            |
| 474            | 33.3         | 26            | 838            | 13.5         | 13            | 939            | 2.3          | 2/7/8         |
| 474(1)         | 34           | 26            | 839            | 13.5         | 13            | 940            | 1.3          | 1             |
| 475            | 35.4         | 27            | 843            | 2.1          | 2             | 941            | 1.3          | 1             |
| 476            | 35.4         | 27            | 844            | 2.1          | 2             | 942            | 1.3          | 1             |
| 477            | 35.3         | 27            | 846            | 13.6         | 13            | 943            | 1.3          | 1             |
| 478            | 20.1         | 16            | 847            | 13.6         | 13            | 944            | 1.3          | 1             |
| 480            | 17           | 15            | 848            | 13.6         | 13            | 945            | 1.3          | 1             |
| 481            | 16.5         | 15            | 853            | 31.2         | 24            | 946            | 1.3          | 1             |
| 482            | 33.2         | 26            | 857            | 13.6         | 13            | 954            | 1.3          | 1             |
| 483            | 33.1         | 26            | 860            | 5.1          | 5             | 957            | 10.1         | 10a           |
| 484            | 33.2         | 26            | 861            | 10.3         | 10            | 958            | 25           | 20            |
| 485(1-3)       | 20.1         | 16            | 862            | 10.3         | 10            | 960            | 30.1         | 23            |
| 485(4)         | 18.2         | 16            | 863            | 10.3         | 10            | 963            | 13.5         | 13            |
| 485(5)         | 18.2         | 16            | 864            | 3.1          | 3             | 964            | 13.5         | 13            |
| 486            | 15.1         | 14            | 865            | 0            | 3             | 965            | 9            | 9             |
| 487            | 19           | 17            | 866            | 3.1          | 3             | 966            | 4.2          | 4             |
| 488            | 16.5         | 15            | 867            | 3.1          | 3             | 970            | 4.2          | 4             |
| 489            | 16.5         | 15            | 868            | 3.1          | 3             | 971            | 12.4         | 12            |
| 490            | 33.1         | 26            | 869            | 3.1          | 3             | 972            | 30.1         | 23            |
| 491            | 31.4         | 24            | 871            | 13.4         | 13            | 973            | 12.3         | 12            |
| 491(1)         | 31.4         | 24            | 872            | 14.3         | 13            | 974            | 10.2         | 10            |
| 492            | 33.2         | 26            | 873            | 14.3         | 13            | 975            | 10.2         | 10            |
| 492(1)         | 33.2         | 26            | 874            | 14.3         | 13            | 976            | 10.2         | 10            |
| 493            | 12.2         | 12            | 875            | 14.3         | 13            | 977            | 10.2         | 10            |
| 494(1)         | 16.2         | 15            | 876            | 14.3         | 13            | 978            | 10.2         | 10            |
| 494(2)         | 16.2         | 15            | 877            | 10.4         | 10            | 979            | 10.1         | 10            |
| 494(3)         | 12.2         | 12            | 878            | 10.4         | 10            | 980            | 10.1         | 10            |
| 494(4)         | 12.2         | 12            | 879            | 10.4         | 10            | 981            | 10.1         | 10            |
| 495            | 17           | 15            | 880            | 10.4         | 10            | 982            | 10.1         | 10            |
| 496            | 16.4         | 15            | 881            | 10.4         | 10            | 983            | 30.3         | 23            |
| 497            | 16.4         | 15            | 882            | 10.4         | 10            | 984            | 30.3         | 23            |
| 498            | 16.4         | 15            | 883            | 10.5         | 10            | 985            | 13.5         | 13            |
| 499            | 16.4         | 15            | 884            | 10.6         | 10            | 986            | 2.3          | 2             |
| 620            | 1.1          | 1             | 885            | 10.6         | 10            | 987            | 2.3          | 2             |
| 638            | 18.1         | 16            | 886            | 2.1          | 2             | 988            | 2.3          | 2             |
| 640            | 19           | 17            | 888            | 5.6          | 5             | 990            | 35.6         | 27            |
| 645            | 18.1         | 16            | 889            | 5.6          | 5             | 991            | 0            | 4/5           |

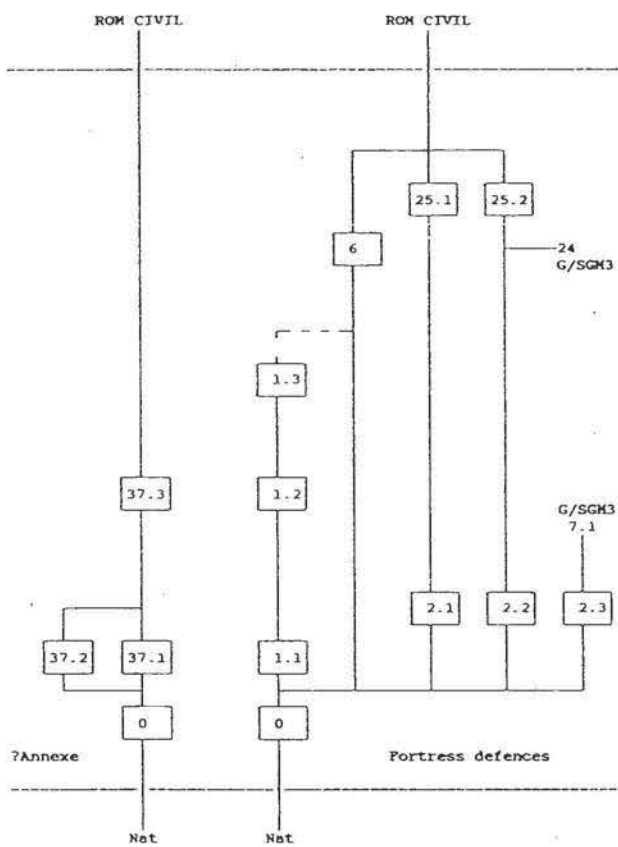


| <i>Context</i> | <i>Group</i> | <i>Matrix</i> | <i>Context</i> | <i>Group</i> | <i>Matrix</i> | <i>Context</i> | <i>Group</i> | <i>Matrix</i> |
|----------------|--------------|---------------|----------------|--------------|---------------|----------------|--------------|---------------|
| 992            | 5.3          | 5             | 1052           | 28.2         | 22            | 1133           | 8.2          | 8             |
| 994            | 4.1          | 4             | 1053           | 28.2         | 22            | 1134           | 8.2          | 8             |
| 995            | 13.5         | 13            | 1053(1)        | 28.2         | 22            | 1135           | 8.2          | 8             |
| 996            | 4.1          | 4             | 1054           | 27.4         | 22            | 1136           | 8.2          | 8             |
| 998            | 2.1          | 2             | 1055           | 30.3         | 23            | 1137           | 7.2          | 7             |
| 999            | 37.1         | -             | 1056           | 30.1         | 23            | 1140           | 13.5         | 13            |
| 999(2)         | 37.3         | -             | 1057           | 29.1         | 23            | 1141           | 18.3         | 16            |
| 1000           | 16.4         | 15            | 1058           | 27.4         | 22            | 1142           | 13.5         | 13            |
| 1002           | 31.2         | 24            | 1059           | 28.1         | 22            | 1143           | 13.5         | 13            |
| 1003(1)        | 31.3         | 24            | 1060           | 28.1         | 22            | 1144           | 13.5         | 13            |
| 1003(2)        | 31.3         | 24            | 1061           | 27.1         | 22            | 1145           | 13.5         | 13            |
| 1003(3)        | 31.3         | 24            | 1068           | 28.2         | 22            | 1146           | 13.5         | 13            |
| 1004           | 30.4         | 23            | 1071           | 23           | 19            | 1147           | 13.5         | 13            |
| 1005           | 30.3         | 23            | 1072           | 2.2          | 2             | 1148           | 13.5         | 13            |
| 1006           | 31.2         | 24            | 1074           | 25           | 20            | 1149           | 13.5         | 13            |
| 1006(1)        | 31.2         | 24            | 1074(4)        | 25           | 20            | 1150           | 13.5         | 13            |
| 1007           | 15.2         | 14            | 1075(1-6)      | 23           | 19            | 1151           | 13.5         | 13            |
| 1008           | 33.4         | 26            | 1075(7)        | 23           | 19            | 1152           | 13.5         | 13            |
| 1009           | 33.4         | 26            | 1077           | 24           | 19            | 1153           | 13.5         | 13            |
| 1010           | 33.4         | 26            | 1078           | 28.1         | 22            | 1154           | 13.2         | 13            |
| 1011           | 33.4         | 26            | 1090           | 7.4          | 7             | 1155           | 13.2         | 13            |
| 1012           | 13.6         | 13            | 1091           | 7.5          | 7             | 1156           | 13.2         | 13            |
| 1013           | 13.6         | 13            | 1092           | 27.4         | 22            | 1157           | 13.2         | 13            |
| 1014           | 13.5         | 13            | 1093           | 7.4          | 7             | 1158           | 13.2         | 13            |
| 1015           | 31.1         | 24            | 1094           | 27.2         | 22            | 1159           | 7.6          | 7             |
| 1016           | 31.1         | 24            | 1095           | 26.5         | 21            | 1160           | 7.1          | 7             |
| 1017           | 31.1         | 24            | 1095(9-11)     | 26.5         | 21            | 1161           | 7.1          | 7             |
| 1018           | 33.4         | 26            | 1096           | 27.3         | 22            | 1162           | 11.5         | 11            |
| 1019           | 33.4         | 26            | 1097           | 26.1         | 21            | 1163           | 11.5         | 11            |
| 1020(3)        | 13.2         | 13            | 1098           | 26.1         | 21            | 1164           | 11.4         | 11            |
| 1020(4-5)      | 13.3         | 13            | 1099           | 2.3          | 21            | 1165           | 11.4         | 11            |
| 1020(6)        | 13.2         | 13            | 1100           | 21.1         | 18            | 1166           | 11.4         | 11            |
| 1020(7-9)      | 13.2         | 13            | 1100(1)        | 21.1         | 18            | 1167           | 11.3         | 11            |
| 1020(10)       | 13.1         | 13            | 1100(2)        | 21.3         | 18            | 1168           | 11.2         | 11            |
| 1021           | 18.2         | 16            | 1100(3)        | 21.3         | 18            | 1169           | 11.2         | 11            |
| 1022           | 32           | 25            | 1101           | 8.3          | 8             | 1170           | 11.2         | 11            |
| 1023           | 32           | 25            | 1102           | 8.3          | 8             | 1171           | 11.2         | 11            |
| 1027           | 16.4         | 15            | 1102(1)        | 8.3          | 8             | 1172           | 11.1         | 11            |
| 1028           | 15.2         | 14            | 1103           | 7.2          | 7             | 1173           | 7.2          | 7             |
| 1030           | 31.1         | 24            | 1104           | 7.1          | 7             | 1174           | 0            | 11            |
| 1031           | 31.1         | 24            | 1105           | 22           | 18            | 1175           | 13.5         | 13            |
| 1032           | 31.2         | 24            | 1106           | 27.3         | 22            | 1176           | 7.3          | 7             |
| 1033           | 32           | 25            | 1107           | 26.6         | 21            | 1178           | 5.4          | 5             |
| 1034           | 32           | 25            | 1108           | 26.4         | 21            | 1179           | 5.4          | 5             |
| 1035           | 32           | 25            | 1109           | 22           | 18            | 1180           | 5.4          | 5             |
| 1036           | 32           | 25            | 1110           | 21.4         | 18            | 1181           | 5.4          | 5             |
| 1037           | 35.3         | 27            | 1112           | 21.1         | 18            | 1182           | 5.4          | 5             |
| 1038           | 32           | 25            | 1113           | 26.6         | 21            | 1183           | 8.3          | 8             |
| 1038(1)        | 32           | 25            | 1114           | 26.6         | 21            | 1184           | 8.3          | 8             |
| 1039           | 32           | 25            | 1115           | 26.6         | 21            | 1185           | 8.1          | 8             |
| 1040           | 13.4         | 13            | 1116           | 26.6         | 21            | 1186           | 8.1          | 8             |
| 1041(1)        | 29.2         | 23            | 1117           | 26.6         | 21            | 1187           | 8.1          | 8             |
| 1041(2-3)      | 29.2         | 23            | 1118           | 26.6         | 21            | 1188           | 8.1          | 8             |
| 1041(4)        | 29.2         | 23            | 1119           | 8.6          | 8             | 1189           | 8.1          | 8             |
| 1041(5)        | 29.2         | 23            | 1120           | 26.1         | 21            | 1190           | 8.1          | 8             |
| 1042           | 30.3         | 23            | 1121           | 23           | 19            | 1191           | 8.1          | 8             |
| 1043           | 32           | 25            | 1122           | 26.6         | 21            | 1192           | 8.1          | 8             |
| 1044           | 12.2         | 12            | 1123           | 21.2         | 18            | 1193           | 8.1          | 8             |
| 1045           | 12.1         | 12            | 1124           | 8.6          | 8             | 1194           | 8.1          | 8             |
| 1045(7)        | 12.1         | 12            | 1125           | 2.3          | 8             | 1195           | 8.3          | 8             |
| 1046           | 30.2         | 23            | 1126           | 8.1          | 8             | 1196           | 8.2          | 8             |
| 1047           | 32           | 25            | 1127           | 8.4          | 8             | 1198           | 3.1          | 3             |
| 1048           | 32           | 25            | 1129           | 8.2          | 8             | 1199           | 3.1          | 3             |
| 1049           | 31.3         | 24            | 1130           | 8.4          | 8             | 1200           | 3.1          | 3             |
| 1050           | 27.4         | 22            | 1131           | 8.5          | 8             | 1201           | 7.4          | 7             |
| 1051           | 27.4         | 22            | 1132           | 8.3          | 8             | 1202           | 7.4          | 7             |

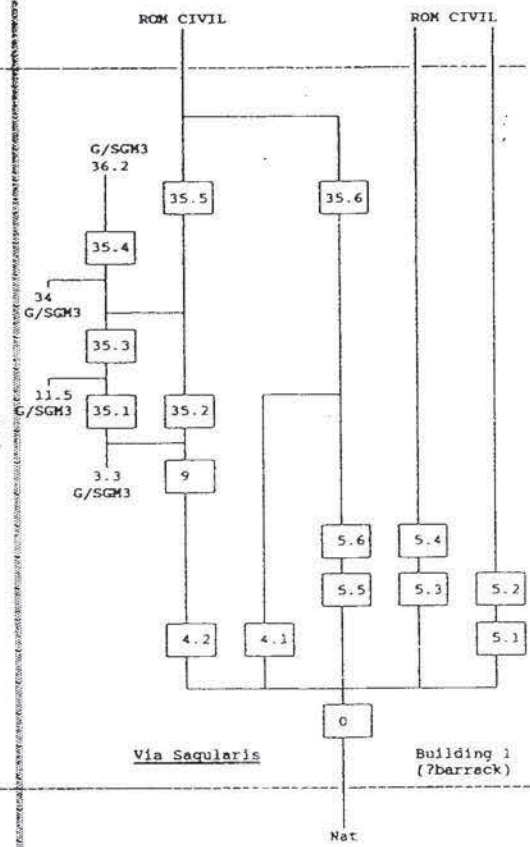


| <i>Context</i> | <i>Group</i> | <i>Matrix</i> | <i>Context</i> | <i>Group</i> | <i>Matrix</i> |
|----------------|--------------|---------------|----------------|--------------|---------------|
| 1203           | 7.4          | 7             | 1504           | 10.4         | 10            |
| 1204           | 7.4          | 7             | 1505           | 10.4         | 10            |
| 1205           | 7.4          | 7             | 1506           | 10.2         | 10            |
| 1206           | 7.4          | 7             | 1507           | 10.2         | 10            |
| 1207           | 7.4          | 7             | 1508           | 10.2         | 10            |
| 1208           | 7.4          | 7             | 1509           | 18.3         | 16            |
| 1209           | 7.4          | 7             | 1510           | 13.2         | 13            |
| 1210           | 7.4          | 7             | 1511           | 5.1          | 5             |
| 1211           | 7.2          | 7             | 1513           | 35.1         | 27            |
| 1212           | 7.4          | 7             | 1514           | ?            | -             |
| 1213           | 7.4          | 7             | 1515           | 0            | -             |
| 1214           | 7.4          | 7             | 1517           | 3.2          | 3             |
| 1215           | 7.4          | 7             | 1518           | 3.2          | 3             |
| 1216           | 7.4          | 7             | 1520           | 7.2          | 7             |
| 1217           | 7.4          | 7             | 1521           | 7.1          | 7             |
| 1218           | 7.4          | 7             | 1522           | 7.2          | 7             |
| 1219           | 8.3          | 8             | 1524           | 0            | 7/8           |
| 1344           | 1.3          | 1             | 1530           | 9            | 9             |
| 1345           | 1.3          | 1             | 1531           | 35.3         | 27            |
| 1346           | 1.3          | 1             | 1532           | 35.3         | 27            |
| 1347           | 1.3          | 1             | 1533           | 35.3         | 27            |
| 1348           | 1.3          | 1             | 1534           | 35.3         | 27            |
| 1349           | 1.3          | 1             | 1535           | 10.4         | 10            |
| 1351           | 7.2          | 7             | 1536           | 10.4         | 10            |
| 1401           | 0            | 1             | 1537           | 5.5          | 5             |
| 1402           | 0            | -             | 1538           | 5.5          | 5             |
| 1435           | 0            | -             | 1539           | 5.5          | 5             |
| 1441           | 6            | 1             | 1540           | 5.5          | 5             |
| 1457           | 0            | -             | 1541           | 11.1         | 11            |
| 1458           | 37.2         | 28            | 1543           | 11.1         | 11            |
| 1465           | 37.3         | 28            | 1544           | 7.2          | 7             |
| 1466           | 37.3         | 28            | 1545           | 7.2          | 7             |
| 1467           | 37.3         | 28            | 1546           | 7.2          | 7             |
| 1468           | 37.3         | 28            | 1547           | 7.2          | 7             |
| 1469           | 37.3         | 28            | 1548           | 7.2          | 7             |
| 1470           | 37.3         | 28            | 1549           | 7.2          | 7             |
| 1471           | 37.3         | 28            | 1550           | 7.2          | 7             |
| 1472           | 37.3         | 28            | 1551           | 7.2          | 7             |
| 1473           | 10.5         | 10            | 1552           | 7.2          | 7             |
| 1474           | 10.4         | 10            | 1553           | 7.2          | 7             |
| 1475           | 0            | 10            | 1554           | 7.2          | 7             |
| 1476           | 10.2         | 10            | 1555           | 7.2          | 7             |
| 1477           | 10.2         | 10            | 1556           | 9            | 9             |
| 1478           | 10.2         | 10            | 1557           | 20.1         | 16            |
| 1479           | 10.2         | 10            | 1558           | 18.2         | 16            |
| 1480           | 2            | 10/10a        | 1559           | 18.2         | 16            |
| 1481           | 7.1          | 7             | 1560           | 35.1         | 27            |
| 1482           | 10.4         | 10            | 1561           | 14.2         | 13            |
| 1483           | 10.4         | 10            | 1562           | 18.2         | 16            |
| 1484           | 10.1         | 10            | 1563           | 14.2         | 13            |
| 1485           | 0            | 4             | 1564           | 14.1         | 13            |
| 1486           | 10.5         | 10            | 1565           | 9            | 9             |
| 1487           | 10.5         | 10            | 1566           | 3.2          | 3             |
| 1489           | 35.6         | 27            | 1567           | 13.3         | 13            |
| 1491           | 0            | 5             | 1568           | 10.4         | 10            |
| 1492           | 0            | 5             | 1570           | 13.4         | 13            |
| 1493           | 25           | 20            | 1571           | 3.2          | 3             |
| 1494           | 2.1          | 2             | 1572           | 3.3          | 3             |
| 1495           | 2.1          | 2             |                |              |               |
| 1496           | 0            | 2             |                |              |               |
| 1497           | 0            | 2             |                |              |               |
| 1498           | 0            | 2             |                |              |               |
| 1500           | 35.3         | 27            |                |              |               |
| 1501           | 35.3         | 27            |                |              |               |
| 1502           | 35.5         | 27            |                |              |               |
| 1503           | 10.4         | 10            |                |              |               |

GROUP / SUB-GROUP MATRIX I  
FORTRESS DEFENCES AND ?ANNEXE



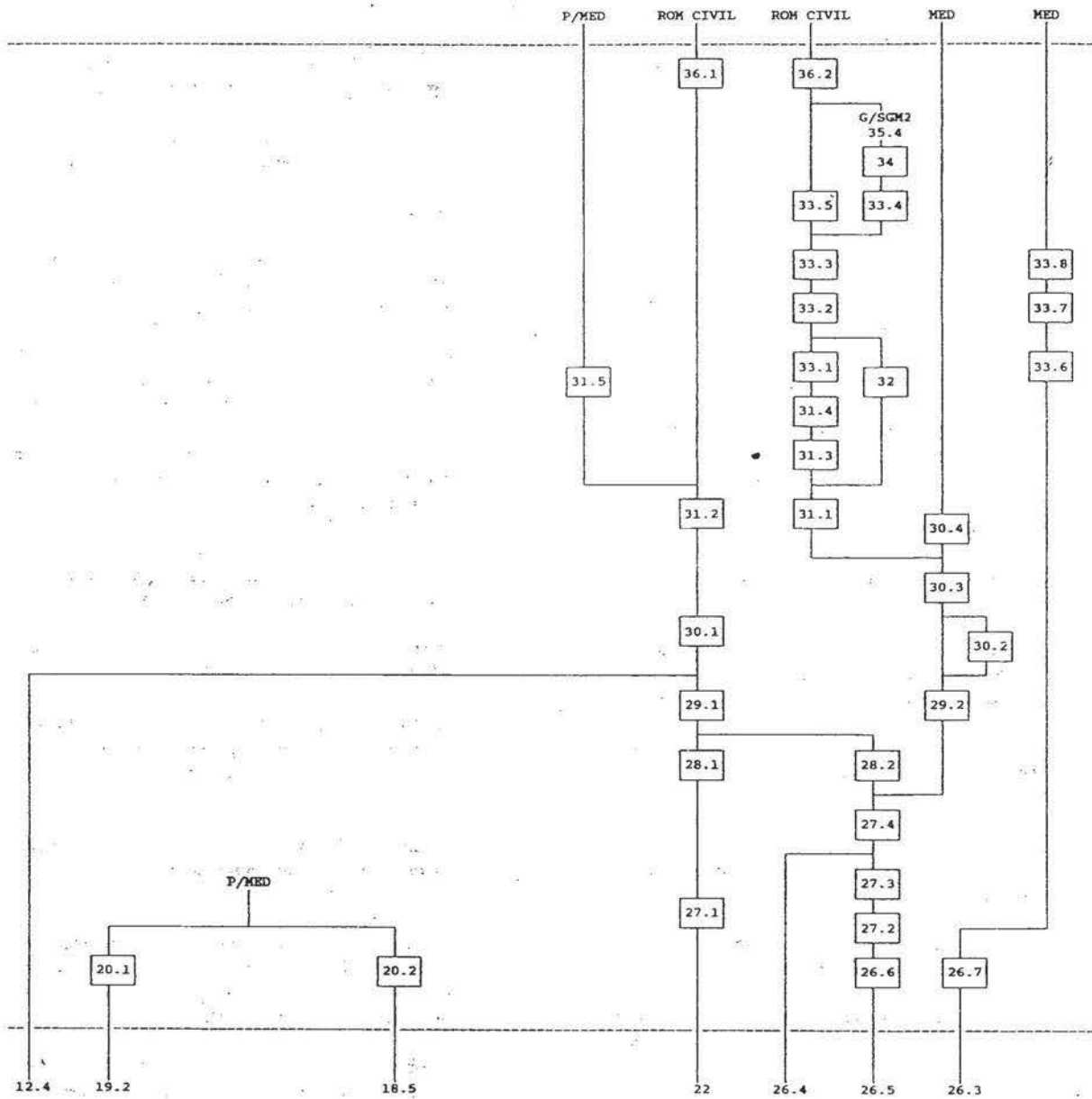
GROUP / SUB-GROUP MATRIX 2  
(VIA SAGULARIS AND INTERIOR)







GROUP / SUB-GROUP MATRIX 3 (INTERVALLUM) Vertical continuation



**List of abbreviations** (for contexts).

|                |         |
|----------------|---------|
| Length         | Le      |
| Depth          | D       |
| Height         | H       |
| Width          | Wth     |
| Diameter       | Diam    |
| North          | N       |
| South          | S       |
| East           | E       |
| West           | W       |
| Frequent       | Freq    |
| Occasional     | Occ     |
| Fragment(s)    | Frag(s) |
| Waterworn      | ww      |
| Volcanic       | Volc    |
| Roman military | Rom Mil |

**Context descriptions** (Roman military contexts only).

- 160 Cut for large Punic profile ditch. D = 1.86m, Wth = 5.2m.
- 372 Fill from smaller ditch 620, pink and yellow clays. D = unrecorded.
- 376 Layer of dumping, bright orange clay with occ pebbles, charcoal flecks. D = 0.10m
- 377 Possible post-trench, steep sided and narrow, fill dark brown/orange clay, with large pebbles, occ charcoal flecks. Sealed by 376. D = 0.34m, Wth = 0.18m.
- 378 Surface, possibly floor. Pink mixed clay with charcoal, possibly trampled. D = 0.03m.
- 380 Dump layer, mid brown clean clays. D = 0.08m.
- 381 Dump layer, charcoal, with occ burnt clay and pebbles. D = 0.06m.
- 382 Shallow pit, fill of pure orange brown clay. D = 0.10m, Diam = 0.50m.
- 383 Dump layer of orange brown clay, contains some charcoal pebbles, 1 large volc stone, 1 cobble. D = 0.07m
- 384 Dump layer of charcoal, black with mixed brown clays, burnt clay and pebbles. D = 0.04m.
- 385 Dump layer of cobbles and pebbles, forming a rough upper surface, matrix of greenish yellow clean clays. D = 0.06m.
- 386 Cut for trench, aligned E-W. Fill of red-brown sandy clay, loose, with occ charcoal flecks, pebbles. D = 0.08-0.12m, Wth = 0.40-0.60m.
- 387 Cobble dump, including many pebbles in a matrix of greenish yellow clays. The first layer of dump inside the cut into back of rampart. D = 0.10m.
- 388 Post-hole, fill of red brown sandy clay with some charcoal. D = unrecorded, Diam = 0.16m.
- 396 Fill of first fortress ditch, generic number given to all layers below pink clays (372). Mostly green grey silts. Most appear to have accumulated rather than being dumped.
- 397 Primary fill of the little ditch, under 396. Light brown clean clayey silt. D = unrecorded.
- 454 Edge of street surface, same as 778. Mid brown clay sand, loose, with many cobbles, pebbles, charcoal, etc. Extreme edge, so no survival of compact metalling.
- 465 Dump comprising several lenses and spreads in a cut. Mostly brown dry sands with charcoal, burnt clay and clean clay spreads. D = 0.10m.
- 466 A further series of dumped spreads, inside a straight-edged cut, mostly dark brown clay sand with much charcoal and burnt clay with pebbles. D = 0.18m.
- 467 Charcoal spread layer, black loose charcoal with occ burnt clay, pebbles. Top fill of pit 468. D = unrecorded.
- 468 Pit; clean yellow clay packed against sides in places, fill also contained lenses of charcoal and brown clay sand. 0.94 x 1.40m, truncated by sewer trench.
- 469 Post-trench, fill of clean greenish buff gravels, aligned NE-SW. Le = 2.0m, Wth = 0.5m, D = 0.04m.
- 470 Dump layer, light brown clay sand, packed but soft, with burnt clay, charcoal, pebbles. First of the series 467-470, infilling timber trench 473. D = unrecorded.
- 471 Burnt clay dump, fill of oven 814, mixed yellow brown red clays and burnt clays, charcoal, gravel. D = 0.08-0.12m.
- 472 Timber trench petering out to W against the oven complex. Fill of mixed dark brown clay sand with occ charcoal, burnt clay, pebbles, shell. E-W alignment. D = unrecorded.
- 473 Timber trench, very mixed fill of clay sand, charcoal, burnt clay, orange clay lumps, yellow clay lumps, volc stone, cobbles, pebbles, tile. Sharp undercutting edge to N. E-W alignment. D = 0.20m.
- 474 Front wall (?beam) of a timber building (Building 6) with a stakehole (unnumbered) cutting through the fill. Set back from the shallow gully to the W of the street by 0.20m. Wth = 0.38m, Le = 1.2m.
- 475 Dump layer, mixed light brown clay sands, sealing wall 474, cut by 468. Spread over the wall and into the gully next to the street, petering out to N before meeting 469. D = unrecorded.
- 476 Dump layer, fill of gully 477, light brownish yellow clean clay sand, spread from the E, i.e. from the street and merging with 475, which was washed in from the W. D = unrecorded.



- 477 Water-pipe trench, fill of light brown gravels and sands, occ volc stones. Steep sided straight cut edge against the clean clay at northern end. Le = 4.10m, Wth = 0.50m.
- 478 Extraction trench, behind rampart, ovens, etc. 3 layers of fill, from top down: dark brown clay, yellow clay, dark brown clay. Dimensions unrecorded.
- 479 Extraction pit for large post, cutting the earlier post-hole beneath. Fill: mixed light brown/yellow sand and clay. Dimensions unrecorded.
- 480 Burnt clay dump under 471, red baked clay with gravel, occ charcoal. Dimensions unrecorded.
- 481 Thin charcoal spread, some dark brown clays, pebbles, some burnt clay. Under 480. Dimensions unrecorded.
- 482 Dump layer, dark brown clay sand, much charcoal, burnt clay, pebbles, infilling a rough trench. D = 0.08m.
- 483 Dump layer, greeny brown clean clay, sand, charcoal, some burnt clay, pebbles. Thick dump infilling a rough scoop to W, against the burnt clay sequence. D = 0.12m.
- 484 Dump infill of irregular gully, primary fill of which 482 is the upper portion. Much of this seems slumped or worked from the sides. Greeny brown clean clay sand, some clay lumps, burnt clay specks. D = 0.12m.
- 485 (1-3) Equivalent to 815; (4) = 1021, Cut = 1040; Slot, back wall of oven complex against rampart 4 different fills. Le = 3.00m, Wth = 0.40m.
- 486 Oven, later replaced by 638. With 1020, a pair. No burnt surface remained, only lower construction dumps and part of walls.
- 487 Trench, fills of yellow brown clay sands and dark brown clay sand, charcoal, aligned E-W. Wth = 0.30m.
- 488 Post-trench, deep, later replaced by 487. Dark grey brown clay sand, fill, with gravels, cobbles. Equivalent to 1040. Wth = 0.30m.
- 489 Dump infilling behind oven wall, mid brown clays, with orange clay lumps, burnt clay, charcoal, pebbles, purple clay lumps. D = 0.20m.
- 490 Dump layer around 1003. Light red brown clay sand, much burnt clay, charcoal, pebbles. Possible demolition. D = 0.06m.
- 491 Oven base, 2 baked surfaces, very patchy, upper surface very limited in extent, lower more extensive but cut out. D = 0.10m.
- 492 Cut, deep accumulation of dumps over a charcoal lower fill, aligned N-S. Charcoal 0.04-0.08m thick, cut by 477. Rest light brown clay sand, charcoal, burnt clay, pebbles.
- 493 Layer - cobbles packed in yellow clay as the base for a pair of ovens, confined within a straight-edged cut to the N and W. D = unrecorded.
- 494(1-4)Oven, top surface burnt in situ, with a make-up of burnt red clay and pebbles. Covers surface (494-1), oven floor (494-2), previous clay wall (494-3). cobble based earlier oven floor (494-4). Only half remains, rest cut out. Le = 2.0m.
- 495 Dump layer, yellow red mixed burnt and unburnt clay, charcoal frags, pebbles, sealing 494 and 814. D = 0.03-0.05m.
- 496 Top one of a series of dumps infilling a cut to E of 814 and 494, which was left open for some time. Black charcoal, with burnt clay lumps, pebbles. D = unrecorded.
- 497 Dump layer under 496. Red burnt clay, some charcoal. D = unrecorded.
- 498 Dump layer under 497. Black charcoal, many burnt clay lumps. D = unrecorded.
- 499 Dump layer under 498, over 1000. Red burnt clay lumps. Some charcoal, only a thin deposit. D = unrecorded.
- 620 Smaller defensive ditch, early and probably short-lived, replaced by 160. Le = 2.74m, Wth = 1.5m.
- 638 Oven - large tile slabs sitting on dull red clay, with a circular broken tile surround, Oven tiles 0.43 x 0.28m. Construction identical to 648. 1.0 x 1.8m, D = 0.26m.
- 640 Tiled/clay floor strip/part of oven? Tiles and tile frags in a dirty thick yellow clay. Possibly associated with 638. Le = 1.0m, Wth = 0.6m, D = unrecorded.
- 645 Oven pit, packed with ww pebbles and pea grit. Some volc stone, brown loam, slate frags, some clay lumps. Part of 638. D = 0.20m.
- 646 Walling tiles for 638, dull red/orange clay. Dimensions unrecorded.
- 647 Intrusion, possible corner post, fill dark clay loam, considerable charcoal, orange daub traces, small pebbles. Dimensions unrecorded.
- 648 Oven base, tile slabs sitting in dull yellow/red caked clay. D = 0.25m.
- 649 Oven pit, part of 648 construction, ww pebbles packed with some volc stone. Some loam content and pea grit. D = 0.25m.
- 714 Layer, possibly demolition, seals bakehouse. Dark brown mixed clay loam, considerable charcoal flecking, small ww pebbles, dull orange clay content. Dimensions unrecorded.
- 747 Wall footing, volc stones with occ pebbles, bound with very dull hard orange brown clay. Le = 2.3m, Wth = 0.20m, D = unrecorded.



- 748 Clay flooring, abutting 747. Dirty mixed brown compact clay, charcoal, small pebbles, mudstone, clay lumps. In places covers oven walling. Dimensions unrecorded.
- 749 Demolition scatter of volc stones derived from 747 in a clay loam/charcoal mix. Dimensions unrecorded.
- 750 Exterior surface for building of which 747 is one wall. Dull yellow pebble clay mix, trampled, occ volc frags, Roman tile frags, charcoal spreads. Dimensions unrecorded.
- 764 Continuation of 747 showing different construction technique - small trench for wall. Fill of dull brown clay loam, many burnt daub lumps. Le = 0.9m. Wth = 0.2m. D = unrecorded.
- 765 Oven walling for 648, dull red burnt mixed yellow red clay, compact, fairly clean. Under 748. Dimensions unrecorded.
- 769 Dump layer, dull yellow brown mixed clays, charcoal flecks, small pebbles. Over 770. Dimensions unrecorded.
- 770 Paved area of worn flat large volc stones, set in a compact mixed mudstone/clay matrix. Dimensions unrecorded.
- 778 Street surface, very compact small pebbles over volc chippings. Larger pebbles at edge not so compacted. D = 0.08m.
- 814 Oven pit, baked floor of very concreted light olive clay with baked red clay ring. Le = 1.70m, Wth = 1.0m, D = 0.04m.
- 815 Trench, fill of mixed yellow/red/orange clay loam, considerable charcoal flecking, small pebbles, probably removed beam trench material of 487. Le = 0.5m, Wth = 0.3m, D = 0.12m.
- 816 Pit, fills: 1)charcoal, 2)mixed burnt and unburnt clay, charcoal flecks, 3)unburnt light beige clay loam, 4)charcoal with clay flecks, 5)soft dirty orange clay with charcoal, occ stones. Le = 1.2m, Wth = 0.7m, (excavated) D = 0.30m.
- 817 Dump layer, light orange brown clay loam, charcoal, tile flecks. D = 0.12m.
- 822 Generic number of first spit of military layers - mostly thin gravel, clay and ash layers over 823. D = 0.38m.
- 823 Depression and layers behind rampart, under 822. Dull yellow brown clay loam. small clay lumps, charcoal flecks, oyster traces. D = 0.34m.
- 824 Layer/Surface - dark beige clay loam, charcoal flecks, light yellow clay lumps; same as surface 903. D = 0.005m.
- 838 Rake-out layers from oven area - black charcoal, very thin clay lenses. D = 0.10m.
- 839 Rake-out layer under 838, dull orange beige clay/loam, charcoal, broken tile, some pebbles, burnt clay lenses, burnt clay lumps. D = 0.10m.
- 843 Interval tower post-pit, fill of dull orange/yellow mixed clay, grey turf, clay lumps, pebbles, stones/charcoal loam traces. Le = 1.4m, Wth = 1.30m, D = 0.70m.
- 844 Interval tower post-pipe, dull brown clay, small clay lumps, occ small charcoal flecks. Diam = 0.24m, D = 0.70m.
- 846 Foundation trench, possibly associated with 847. Fill of very light sandy brown clay, charcoal flecks, loam traces. Le = 1.8m, Wth = 0.30m, D = unrecorded.
- 847 Foundation trench, fill of mixed black/red clay loam, charcoal, burnt clay, small pebbles. Contains 857. Le = 1.90m, Wth = 0.27m, D = unrecorded.
- 848 Same as 1012. Foundation trench, contains small volc stones set in burnt clay with gravel traces and charcoal. Aligned E-W, Le = 0.8m, Wth = 0.30m, D = unrecorded.
- 853 Foundation trench, fill of red and very light orange clay, charcoal flecks, grey loam traces. Le = 1.44m, Wth = 0.27m, D = unrecorded.
- 857 Stakehole within 847, fill of black charcoal, small clay flecks. Diam = 0.10m.
- 860 Post-hole in trench 893. Very dull brown clay, soft with voids. Diam = 0.10m.
- 861 Post-hole? in trench 863, cuts 590, dull brown clay loam, volc stones, charcoal, mixed clay flecks. Dimensions unrecorded.
- 862 Post-hole in trench 863. Fill of grey brown clay loam, coarse/stony, mixed clay flecks, charcoal, stones. Diam/D = unrecorded
- 863 Post-trench, fill of grey brown clay loam with oysters, yellow clay lumps, ww pebbles, charcoal. Contain 862, 861. Le = 1.8m, Wth = 0.4m, D = unrecorded.
- 864 Post-trench, fill of orange clay, iron panning, small pebbles, stones, clay loam and turf traces, also firm dull brown clay loam fairly clean, some charcoal. Contains 1198-1200. Le = 2.20m, Wth = 0.6m, D = 0.30m.
- 865 Layer, possibly degraded turf. Dirty grey brown clay, few impurities, some pebbles. D = unrecorded.
- 866 Post-hole (1 of 2, other 867) in trench 868, fill of dark brown clay loam, charcoal flecks, small pebbles, small mixed clay flecks. D = 0.2m.
- 867 Post-hole, one of a pair, other 866, identical fill, within 868. Diam = 0.3m.
- 868 Post-trench, fill of yellow brown mixed clays, charcoal, ww pebbles, stones, pink culm clay.

- At same level as 869. Le = 1.9m (E-W),  
Wth = 0.4m (excavated), D = 0.2m.
- 869 Large post-hole possibly associated with 868. Fill of yellow brown clay loam, iron panning, stones, ww pebbles. Le = 1.0m, Wth = 0.4m, D = unrecorded.
- 870 Layer/oven, red orange burnt clay, compact with charcoal flecks. Dimensions unrecorded.
- 871 Foundation trench, lowest trench of side wall for oven 1020 complex, fill of dull orange/brown clay/clay loam mix, charcoal flecks, yellow clay lumps, small pebbles. Le = 3.4m (E-W), Wth = 0.6m, D = 0.08m.
- 872 Dump in cut, red/black burnt clay, lumpy, with charcoal. Le = unrecorded, Wth = 0.3m, D = 0.14m.
- 873 Dump layer under 874, clean black ash. D = 0.12m.
- 874 Trench, located in section only, cut by 916, fill of dark brown sandy clay, burnt clay lumps and charcoal. Wth = 1.1m, D = 0.2m.
- 875 Foundation trench, aligned E-W, fill of grey brown clay. Le = 0.27m, Wth = 0.24m, D = 0.10m.
- 876 Foundation trench, aligned E-W, fill of black charcoal, burnt clay, Le = 0.22m, Wth = 0.2m, D = 0.12m.
- 877 Layer/possible surface to N of oven complex, very dark brown clay loam, soft, ashy, with charcoal, oyster traces, very light yellow clay lumps. D = 0.15m.
- 878 Layer to N of oven complex, clay loam, light yellow clay lumps, charcoal flecks, small ww pebbles, volc stone traces. D = 0.14m.
- 879 Layer to N of oven complex, dull brown clay loam, firm, small ww pebbles, pea grits, clay lumps. D = 0.10m.
- 880 Layer to N of oven complex, light orange clay loam, pea grit. D = 0.06m.
- 881 Layer to N of oven complex, light brown clay loam, dull orange clay lumps, pea grit, ww pebbles. D = 0.14m.
- 882 Layer to N of oven complex, grey/yellow/brown clay loam, charcoal, iron panning, clay lumps. D = 0.12m.
- 883 Layer to N of oven complex, dull brown clay loam, ww pebbles, stones, gravel, pea grit, charcoal, mixed clay flecks. D = 0.13m.
- 884 Layer to N of oven complex, orange brown clay loam, pea grit, charcoal flecks, loam, daub traces. D = 0.10m.
- 885 Layer to N of oven complex, dull dark brown clay loam, yellow clay lumps, ww pebbles, charcoal flecks, pea grit. D = 0.17m.
- 886 Post-pit, under rampart, cutting natural, fill of yellow brown gravel with clay, occ wedges pink culm clay. Diam = 1.0m, D = 1.5m.
- 888 Possibly gully to E of street surface, fill of very dull red gritty sand, occ pebbles, iron panning, deeper at N, respects 893. Le = 1.20m, Wth = 0.24m, D = 0.08m.
- 889 Pebble surface to E of street sequence, set in fine sandy gravel, to the rear of and contemporary with 893. D = 0.04m.
- 891 Post-holes in 893. Fill of dull brown clay, soft with several voids. D = 0.10m, Diam = 0.15m.
- 892 Other of two post-holes in 893, fill same as 891, Diam = 0.10m, D = 0.1m.
- 893 Post-trench, aligned N-S, fill of dull yellow brown clay loam, small ww pebbles, light orange gritty sand, grey charcoal flecks. Le = 1.2m, Wth = 0.5m, D = 0.4m.
- 895 Floor surface, firm grey clay, yellow clay, charcoal flecks, associated with 893. D = 0.02m.
- 896 Layer in 620, light brown/red clay, occ pebbles. D = 0.11m.
- 897 Layer in 620, rusty brown clay, iron panning, stones. D = 0.20m.
- 898 Layer in 620, grey brown clay, ww pebbles, stones. D = 0.22m.
- 899 Layer in 620, orange brown coarse clay, stones, ww pebbles, some charcoal. D = 0.30m.
- 900 Primary clay silting in ditch 620, pink clay silt. D = 0.28m.
- 903 Surface of gravel laid on material accumulation to N of oven complex, dull yellow brown clay, considerable charcoal flecking, small pebbles, estuarine shell traces, mixed clay lumps. D = 0.005m.
- 904 Dump layer of compact clay loam, orange clay lumps, gravel traces, stones, charcoal flecks. To N of oven complex. D = 0.20m.
- 905 Dump layer over 909 to N of oven complex. Compact clay loam, ww pebbles, dry clay lumps, charcoal flecks, gravel traces. D = 0.08m.
- 906 Dump layer to N of oven complex, dull yellow brown clay loam, stones, charcoal flecks. D = 0.20m.
- 907 Dump layer, compact clay loam, gravel, stones, charcoal, sandy clay lumps, clay flecks. To N of oven complex. D = 0.30m.
- 908 Layer to N of oven complex, firm clay loam, charcoal, gravel traces, small pebbles, stones. D = 0.12m.



- 909 Surface of gravel, small pebbles, late in the sequence accumulating to the N of the ovens. D = 0.05m. pebble. D = 0.06m.
- 910 Dump layer to N of oven complex, dark brown clay loam, oyster and estuarine shell traces, charcoal flecks, small pebbles. D = 0.08m.
- 911 Layer to N of oven complex. Light yellow brown clay loam, occ oyster/gravel traces. D = 0.12m.
- 912 Layer to N of oven complex. Very dark brown clay loam, clean clay lumps, ww pebbles. D = 0.20m.
- 913 Layer to N of oven complex. Dull yellow brown clay loam, small clay lumps, charcoal flecks, oyster traces. D = 0.10m.
- 914 Pit, possibly interval post-pit replacement. Compact culm clay, charcoal, ww pebbles, stones, mixed clay lumps, loam flecks. D = 1.40m.
- 915 Ditch, fill of 5 layers: 1) red brown clay loam, 2) red brown silty clay, 3) dirty brown clay, 4) sandy yellow brown clay, 5) dark red brown silty clay. Le = 11.14m (N-S), Wth = 1.3m, D = 0.64m.
- 916 Foundation trench, E-W, fill of dark brown clay loam, charcoal flecks, small stones, pebbles, gravel, burnt clay flecks. Le = 3.66m, Wth = 0.65m, D = unrecorded.
- 917 Pit, fill of light brown fine silt. Diam unrecorded, D = 0.20m.
- 918 Layer to N of oven complex, dull yellow brown clay, gravel, charcoal flecks, small pebbles, shell, mixed clay lumps. D = unrecorded.
- 919 Layer to N of oven complex, light brown clay gravel, small pebbles. D = unrecorded.
- 920 Pit, full of grey brown clay/pebbles. Diam unrecorded, D = 0.12m.
- 922 Culvert, same as 996, 3 fills: 1) yellow sandy clay, 2) grey/yellow silt, 3) mixed yellow brown silty clay. D = 0.3m.
- 928 Generic number for several layers in section 28 - mixed above 903, accumulating to N of oven complex. D = 0.20m.
- 929 Surface, light yellow clay, firm with few impurities, some pebbles. To N of oven complex. D = unrecorded.
- 932 Replacement pit for interval tower post, cuts rampart, mixed clay fill, charcoal flecks, stones, pebbles. Contains 958. Diam = 1.02m, D = 1.20m.
- 939 Generic number for several layers of clays constituting rampart core. Stones, ww pebbles, culm clay, mudstone, charcoal, turf traces. Cleaner grey towards front. D = 0.96m.
- 940 Layer at front of rampart in larger defensive ditch - dull orange clay, pink culm mudstone traces, occ 941 Layer at front of rampart in larger defensive ditch - dull brown clay, pink culm clay traces, charcoal flecks, loam traces, occ stone. D = 0.04m.
- 942 Layer in larger defensive ditch - light reddish brown clay, occ stones, light clay traces. D = 0.12m.
- 943 Layer in larger defensive ditch, dark red/brown clay, occ pink clay flecks. D = 0.10m.
- 944 Layer. Brown silty clay, charcoal, occ mixed clay flecks. D = 0.20m.
- 945 Layer in smaller defensive ditch, dull orange/light green clay, mixed clay flecks. D = 0.20m.
- 946 Layer in smaller defensive ditch, dull orange clay, compact, occ stone. D = 0.15m.
- 954 Layer in smaller defensive ditch, light brown sandy clay. D = 0.10m.
- 957 Several layers, dull olive clay loam, oysters, wood traces, mixed clay lumps, ww pebbles, stones, charcoal flecks. Generic number for lower layers accumulating N of oven complex. D = 0.16m.
- 958 Post-hole within 932, fill of dull brown clay loam, mixed clay flecks, some gravel and pebbles, voids. Diam = 0.22m, D = 1.20m.
- 960 Dump/take-out layer, mixed black/red/yellow mixed clay loam, charcoal lumps, flecks in profusion, burnt clay lumps, occ pebbles. D = 0.20m.
- 963 Scoop, possibly associated with 964, fill of dark brown mixed clay loam, considerable charcoal flecks, small pebbles. D = unrecorded.
- 964 Footing for wall, varied dark infill, charcoal, ww pebbles, small volc frags, some flat volc stones set on edge. Formed a sharp V-shaped trench seeming to delineate a boundary for oven rake-out. Le = 0.25m, Wth = 0.08-0.06m.
- 965 Make-up for street surface, compact packed pebbles, with some volc stone and gravel. D = 0.15m.
- 966 Street surface, compacted pebbles, some larger worn cobbles. D = 0.02m.
- 970 Make-up for street surface, small pebbles and pea grit; compact, slightly reddish. D = 0.20m.
- 971 Foundation trench with possible post-hole, fill of black clay loam/charcoal, volc stones, pebbles, burnt and unburnt clay lumps. D = 0.18m.
- 972 Dump layer, varied/light brown clay loam, many charcoal flecks, stones, pebbles, burnt clay lumps. D = 0.17m.
- 973 Foundation trench, fill of black clean charcoal, occ pebbles. Le (E-W) = 1.40m, Wth = 0.40m, D = 0.14m.



- 974 Layer to N of oven complex, dull brown clay loam, oysters, small pebbles. D = 0.08m.
- 975 Layer to N of oven complex, yellow brown clay loam, dull red clay lumps, pebbles, oyster traces, some gravel. D = 0.10m.
- 976 Layer to N of oven complex, yellow brown clay loam, charcoal, ww pebbles, gravel. D = 0.15m.
- 977 Layer to N of oven complex, dull red clay, some clay loam content. D = 0.02m.
- 978 Layer to N of oven complex, brown clay loam, gravelly, compact with ww pebbles, oysters. D = 0.12m.
- 979 Layer to N of oven complex, light brown clay loam, firm, ww pebbles. D = 0.14m.
- 980 Layer to N of oven complex, yellow brown clay loam, firm, ww pebbles, iron panning traces. D = 0.20m.
- 981 Layer to N of oven complex, black clay loam, much charcoal, occ small pebbles, stones. D = 0.04m.
- 982 Layer to N of oven complex, yellow brown clay loam, some clay flecks and gravel. D = 0.07m.
- 983 Layer, dull orange clay, charcoal flecks. D = 0.16m.
- 984 Layer, silty grey, brown clay loam, charcoal, burnt clay flecks, small pebbles. D = 0.06m.
- 985 Rake-out materials, black charcoal, some loam content, burnt and unburnt clay lumps, same as 1147. D = 0.20-0.04m.
- 986 Impressed clay over and between corduroy, appears to finish exactly on corduroy front line. D = 0.03m.
- 987 Corduroy foundation for rampart timbers. Black/dark brown staining. Timbers average 0.16m in Wth, with a 0.03-0.04m gap between each one.
- 988 Turf, light greeny grey turf, clay, traces of iron panning. Dimensions unrecorded.
- 990 Shallow linear feature, unplanned, fill of dull orange brown clay loam, freq pea grit, charcoal flecks, ww pebbles. D = 0.16m.
- 991 Turf layer, light greeny grey turf, clay, occ stones, iron panning. Dimensions unrecorded.
- 992 Gully, E-W, fill of dull brown clay loam, stony, charcoal flecks, ww pebbles. Le = 2.40m, Wth = 0.30m. D = unrecorded.
- 994 Gully, possibly same as 1500. Fill of: 1) dull brown clay loam, 2) silty dull red clay loam; seems likely to be water-pipe trench. Dimensions unrecorded.
- 995 Possible cobbled surface; large cobbles with occ volc stone set in a clay loam mix with abundant charcoal. In use prior to covering by rake-out layers. To S of 964. D = unrecorded.
- 996 Same as 922. Culvert - 3 fills. D = 0.30m.
- 998 Interval tower post-pipe, fill of varied mixed clays, pink culm clay lumps. 0.36 x 0.24 at top. D = unrecorded.
- 999 Ditch cut only. Wth = 3.60m, D = 1.84m, Le = unrecorded.
- 999(-2) Lower fill of ditch; dark yellow clay with oyster traces.
- 1000 Dump layer, brown and black clay sand and charcoal, burnt clay lumps, pebbles. D = unrecorded.
- 1002 Possible post-trench, cut to W of 1003. Fill of black charcoal mixed with brown clay sand, burnt clay, pebbles. D = 0.03m.
- 1003 Oven with two cobbled bases, one of large cobbles and amphora frags, set in gravel, other of smaller laid cobbles, then a make-up of burnt clay. Le = 2.3m, Wth = 1.8m, D = 0.24m.
- 1004 Small section of post-trench, aligned N-S. Fill of mid brown clay sand, charcoal, burnt clay and pebbles. Le = 0.28m, Wth = 0.20m, D = 0.06m.
- 1005 Dump layer over a cobble dump; filling a cut to the N at end of 1002. Red brown clay sand, charcoal, pebbles, burnt clay. D = 0.04m.
- 1006 Post-trench aligned N-S, contained post-hole filled with pure charcoal. Mid brown clean gravel fill. Continuation of this trench is 1046. Le = 1.4m, Wth = 0.4m, D = 0.4m.
- 1007 Dump layer, cut by 638, over 486. Dimensions/composition unrecorded.
- 1008 Cobble dump and clay sand with much charcoal, perhaps trodden on surface. Some volc stones, pebbles, charcoal, burnt clay. D = unrecorded.
- 1009 Dump of small pebbles and grits under 1008, mid brown, loose, some charcoal. D = unrecorded.
- 1010 Equivalent to 1011. Surface of flat cobbles and volc rubble with gravel pressed between them. Merges with 1011 which seems to be part of the same feature. D = unrecorded.
- 1011 Dumped at same time as 1010 cobbles. Appears to overlap the edge of 474-2. Flat compact yellow clean clay sand, some charcoal and burnt clay. D = unrecorded.
- 1012 Same as 848.
- 1013 Shallow trench/gully. Fill of buff yellow clay, charcoal, burnt clay. Partially under section. Le = 1.20m, Wth = 0.24m, D = unrecorded.
- 1014 Dump of mixed light brown clays, large red and white clay lumps, orange burnt clay, charcoal, cobbles, pebbles. D = unrecorded.
- 1015 Cobble and volcanic stone dump. D = 0.05m.



- 1016 Dump of light brown clay sand, much charcoal, some burnt clay, pebbles, volc stone lumps. D = unrecorded.
- 1017 Dump infilling a scarp to E of oven 1003, but dumped before oven construction. Red clay, packed, some charcoal, clay sand, burnt clay, pebbles. D = 0.20m.
- 1018 Charcoal dump - dark brown clay sand, much charcoal, pebbles, some burnt clay. D = unrecorded.
- 1019 Volc stone entranceway, set into underlying clay dump, rounded on surface due to wear. Possibly went into wall 469. Le = 1.0m, Wth = 0.8m.
- 1020 Oven - cobbled base, baked clay surfaces within, demolition infill above. To W of 486. Le = 2.4m, Wth = 1.16m, D = 0.6m.
- 1021 Beam-slot, fill of dark brown clay sand, much charcoal. Le, Wth, unrecorded; same as 485(4), D = 0.08m.
- 1022 Dump, possibly fill of 492, possibly a floor level. Clean light buff/orange clay, compact but soft. Covered by a thick charcoal deposit. D = unrecorded.
- 1023 Clay dump, mid brown, compact, charcoal, pebbles, burnt clay, some volc stones. D = unrecorded.
- 1027 Charcoal dump, some ash, gravel, cobbles, burnt clay. At bottom of sequence of rake-out layers. D = 0.03-0.1m.
- 1028 Gravel spread, dump behind N wall of oven 486. Mid brown gravel with some large pebbles. D = unrecorded.
- 1029 Dump layer, red and yellow burnt clay, charcoal, few pebbles. D = 0.12m.
- 1030 Charcoal dump, some ash, burnt clay. D = 0.20m.
- 1031 Clay dump, buff/orange clean clay, volc stones, charcoal, some burnt clay. Spread, possibly trodden surface. Edge may have been revetted by a beam, i.e. feature possibly a building wall. D = unrecorded.
- 1032 Narrow trench, aligned E-W, may have been to fix wattles or stakes into the ground. Fill of yellow clay, pebbles, some charcoal. Le = 1.20m, Wth = 0.10m, D = unrecorded.
- 1033 Mixed dump, mid brown clay sand, large yellow clay lumps, gravel lenses, charcoal, burnt clay, cobbles, pebbles. Lies within N-S cut. Dimensions unrecorded.
- 1034 Same as 1023. Dump of compacted red/brown mixed clay sands and burnt material. Burnt clay, cobbles, charcoal, pebbles. Possibly trampled on surface. D = unrecorded.
- 1035 Charcoal dump, dark brown clay sand, much charcoal, few clay lumps, pebbles, cobbles. Confined to inside of N-S cut. D = unrecorded.
- 1036 Clay dump, red/brown mixed clays and burnt materials, confined to N-S cut, surface very uneven and pitted, only dump cut by 1037. D = unrecorded.
- 1037 Water-pipe trench, straight sided cut with gravels, sands, burnt clays, etc. Cuts from latest military street surface, capped by a street patching. Le = 1.5m, Wth = 0.6m, D = unrecorded.
- 1038 Beaten clay floor, top of mixed clay dumps 1028,9. Beaten/trampled mixed orange and yellow clay, charcoal, pebbles. D = unrecorded.
- 1039 Make-up dump of orange clay lumps, pebbles, charcoal flecks, deposited against front wall (1037 extraction). D = unrecorded.
- 1040 Slot for beam, aligned N-S. Le = 2.8m, Wth = 0.30m, D = 0.14m.
- 1041 Oven, rebuilt once; baked clay surface, cobbled edge, cobble base in unburnt red clay, thick gravel base underneath it all. Le = 1.90m, Wth = 1.2m, D = unrecorded.
- 1042 Demolition of 1041. Mixed red and yellow clay, pebbles, cobbles. Dimensions unrecorded.
- 1043 Dump of light brown clean gravel within the N-S cut edge, spreading to the E, where it is cut out by 1037. D = unrecorded.
- 1044 Dump layer, mixed charcoal, burnt clay, yellow clay lumps. Isolated on an upstand. D = unrecorded.
- 1045 Cut, probably other edge of pit to construct ovens 494, 493. Le = 4.0m, Wth = 0.5m, D = 0.22m.
- 1046 Shallow gully, merges with 1006. Shallow, filled with cobbles and clay sand/clay. Le = 1.8m, Wth = 0.24m, D = unrecorded.
- 1047 Dump layer of light buff clays and clay sands, charcoal and clay lumps, confined to N-S cut 1048. Bottom levelling dump within the cut. D = unrecorded.
- 1048 Straight edged cut aligned N-S. Vertical face must have been revetted by a beam or planks. Le = 4m, Wth = 0.02-0.2m, D = unrecorded.
- 1049 Dump layer, yellow brown clay sand, some charcoal, burnt clay, pebbles. Cut by 1048. D = 0.06-0.20m.
- 1050 Dump layer, dark brown clay sand, much charcoal, ash, some burnt clay flecks. Cut by 1017. D = 0.20m.
- 1051 Dump, light yellow brown clay/clay silt, much charcoal, burnt clay. Does not appear in the sequence to the W. D = 0.1-0.15m.
- 1052 Dump of greenish brown clay sand and gravels, charcoal, some burnt clay. D = 0.03-0.08m.



- 1053 Dump of red clay sand, charcoal, some pebbles. Under 1052. D = 0.05-0.08m.
- 1054 Floor, a dump of charcoal and ash in a laminated sequence of trodden deposits. Clay spreads and clay sand lenses, all trodden on various parts of the floor. D = 0.02m.
- 1055 Steep sided cut on S side, running up over 1054 to N with no obvious cut edge. Dump inside cut of yellow brown clay sand, charcoal flecks. Dimensions unrecorded.
- 1056 Robbing of wall 1057. Dump mounded against the N cut for 1057 after some of the stones had been removed. 1055 then mounded against this dump. Same as 960. Dark brown clay sand, charcoal, pebbles. D = 0.35m.
- 1057 Wall footings, E-W alignment. Stone footed wall cutting 1054, volc stones, cobbles in light brown clays. Dimensions unrecorded.
- 1058 Dump of yellow orange clean clays, not found S of 1017, badly disturbed by modern borehole. D = 0.06m.
- 1059 Dump layer of mixed red clays, much charcoal, burnt clay, yellow orange clay. D = 0.04m.
- 1060 Upper fill of cut 1061. Black charcoal with some large burnt clay lumps. D = 0.04m.
- 1061 Wall trench - dark brown/grey mixed clay sands, much charcoal in lenses, burnt clay, buff clay lumps, pebbles, orange clay lumps. D = 0.20m.
- 1068 Lower fill of 1057, black charcoal. D = unrecorded.
- 1071 Oven base - laid cobble base, then cobble dump, then red clay, some charcoal, pebbles, cobbles. Le = 1.30m, Wth = 1m, D = unrecorded.
- 1072 Interval tower post-pit - 2 fills: 1) mixed orange/grey/yellow clays, cobbles, pebbles, charcoal flecks; 2) light orangy buff clay with yellow clay lumps. Front post. Diam = 1.3m, D = unrecorded.
- 1074 Interval tower post-pit - back: 4 fills: 1) mixed brown and pink clays; 2) buff yellow clean clay; 3) mixed clean yellow and pink clays; 4) post-pipe clean light brown soft clay silt. Le = 2.0m, Wth = 1.3m, D = 1.10m.
- 1075 Foundations of oven 1071. 7 layers, gravel at base, clay mixes above. D = unrecorded.
- 1077 Build-up of levels within pit, confined to the E of rampart inside same cut as ovens. Large rectangular pit cut through 1075. Dimensions unrecorded.
- 1078 Same as 1059. Extends to cover the upstand to the W. D = 0.04m.
- 1090 Post-trench and posts 1202-1210 within it. Filled by gravels associated with construction of ovens, small amounts of yellow and grey clay. Stakes driven into fill of 1103. Le = 2.4m, Wth = 0.5m, D = unrecorded.
- 1091 Gully, ends at back of rampart parallel to E-W 1090. Filled by gravels associated with the construction of ovens. Le = 3.1m, Wth = 0.40m, D = unrecorded.
- 1092 Dump sequence in NW corner of Building 5, of which 1054 is the floor. Yellow clays with lenses of charcoal, few pebbles, burnt clay lumps. Much pot found in this dump in corner of building. D = unrecorded.
- 1093 Dump of mixed yellow clays, grey clay lumps, cobbles, charcoal, pebbles. Continued to area behind rampart. D = 0.08m.
- 1094 Trampled layer of clay floor, charcoal, burnt clay, shell flecks, associated with demolition of oven 1100. D = 0.05-0.12m.
- 1095 Scoop/pit - cess pit of well. Top layer of black charcoal and clay sand, burnt clay specks, lined with sticky clay 0.06-0.08m thick - possibly associated with an earlier feature cut by 1095. Diam = 1.8m, D = 0.18m.
- 1096 Possible post-pad - a group of four small volc stones possibly set into floor 1094 as a post-pad. 0.2 x 0.2m.
- 1097 Post-pipe within 1099, fill of light grey/brown clay silt. Diam = 0.16m, D = unrecorded.
- 1098 Shallow scoop within 1099, fill of light red/brown clay sands, some pink clay/pebbles, charcoal. Diam = 0.62m, D = unrecorded.
- 1099 Dump of clay, associated with rampart dumps and cut into by the long N-S cut. D = unrecorded.
- 1100 Oven under 1094. Yellow clay walls overlying a tumbled cobble base in turn over gravel dump/make-up extending N as far as 1061. This oven had an unrevetted clay tongue at the front. Diam = 1.60m.
- 1101 Post-trench under the long E-W Section \*. Fill of light yellow clean clay, appears to respect the front wall 1102. Two posts within it filled with light yellow/grey clay silt (1183,4). Le = 3.3m, Wth = 0.3m, D = unrecorded.
- 1102 Post-trench aligned N-S, equivalent to 1132. Front wall of a building - fill of yellow clay, some grey clay lumps, cobbles, pebbles. Le = unrecorded, Wth = 0.34m, D = unrecorded.
- 1103 Post-trench aligned E-W, fill of yellow clay, grey clay, some charcoal. 1090 is the replacement for this wall. Le = 2.3m, Wth = 0.4m, D = 0.6m.
- 1104 Post-trench parallel to 1103, 2 fills: upper of clean yellow clay, compact, few pebbles; lower of many grey clay lumps, cobbles, pebbles. Under 1093. Le = 3.0m, Wth = 0.40m, D = 0.74m.
- 1105 Dump of mid brown clay sand, charcoal, burnt clay flecks, pebbles. Overlies the charcoal rake-out



- from oven 1100, overlain itself by 1094. D = unrecorded.
- 1106 Partition/screen - a soil mark at the level of 1054 running N-S by 1100. Cut from 1094; so charcoal lenses of 1054 respected the wall. Dimensions unrecorded.
- 1107 Thin charcoal spread with trodden surface, apparently respecting the line of 1108. D = 0.01-0.03m.
- 1108 Shallow trench 0.05-0.08m deep, with a post-pipe cutting the fill (Diam = 0.05m, D = 0.10m). Fill of mid brown clay sand, charcoal, orange clay lumps. Aligned E-W, trench tapers out to E. Le = unrecorded, Wth = 0.24m.
- 1109 Dump/levelling overlying rake-out from 1100. Light brown clay sand, some charcoal, burnt clay, pebbles. Overlain by 1094. D = 0.12m.
- 1110 Charcoal and ash rake-out from oven 1100. Spreads as far N as 1065. Becomes thicker away from the mouth of 1100. D = 0.02m.
- 1111 Possible wall/dump of clay sand, from the same level as floor 1112, which respects it. D = 0.40m, Le, Wth unrecorded.
- 1112 Beaten clay floor, goes under oven 1100, associated with oven, in use before oven built. Mixed grey and yellow clays, some charcoal. D = 0.05m.
- 1113 Dump/possible floor surface. Compact red brown clay, some burnt clay, charcoal. D = 0.04m.
- 1114 Charcoal spread with surface, flat trampled black charcoal, ash, clay silt, estuarine shells and buff clay. Overlies fill of 1095. D = 0.06m.
- 1115 Dump/possible floor surface - lowest of a series that appear to be within a pit/room/building cut through the dumps covering the use of 1100. D = 0.04m.
- 1116 Dump with surface under 1115 - flat trampled dark brown clay sand, much charcoal, some burnt clay, pebbles. Equivalent to 381. D = 0.02m.
- 1117 Dump under 1107, light yellow/brown mixed clays, charcoal, burnt clay, gravel, yellow clay lumps. D = unrecorded.
- 1118 Dump of light grey brown clay, charcoal, some burnt clay, gravel, estuarine shells, pebbles. Under 1117. D = unrecorded.
- 1119 Dump of light brown/grey gritty clay, some pebbles. D = unrecorded.
- 1120 Dump of sticky yellow clay. Cut by 1095. Might be a dump within a building. D = <0.20m.
- 1121 Possible oven site, looks very much like 1071 - possibly paired with 1071.
- 1122 Dump/floor level, buff clean clay, confined to an upstand, between 1107 and 1113. D = unrecorded.
- 1123 Clay wall over gravels under 1100. Dimensions unrecorded.
- 1124 Dump of light yellow brown mixed clay, within 1119. D = unrecorded.
- 1125 Dump, possibly part of rampart tail, mixed yellow grey and brown clays, overlying grey clay. D = unrecorded.
- 1126 Post-trench - wattles - under 1124. Aligned N-S, two post-holes, sealed by 1119. Fill of mid red brown gritty clay, yellow clay lumps, pebbles, gravels, shells. Le = 2.1m, Wth = 0.25m.
- 1127 Equivalent to 1130. Dump of light yellow brown clean clay, soft, gravel, pebbles. Over grey clay, under 1112. D = unrecorded.
- 1128 Shallow scoop, filled with black gritty charcoal, to SW of 1126. D = <0.04m.
- 1129 Post-hole/pit/pipe; fill of light yellow brown clays and clay silts; a roughly square post-pit with pit 1196 in NW corner. 0.4 x 0.5m. D = unrecorded.
- 1130 Equivalent to 1127. Dump of light red brown clean clay, charcoal, pebbles. D = unrecorded.
- 1131 Post-trench aligned N-S cutting 1132. Fill of mixed yellow clay, cobbles, pebbles, some grey clay lumps. Sloping edge. D = 0.6m, Le = 0.6m, Wth = 0.5m.
- 1132 Post-trench partially truncated by 1131. Two most westerly posts survived as silt filled pipes found right from the top, as well as post-hole 1195. Le = 1.80m, Wth = 0.27m, D = 0.72m.
- 1133 Post-pit with pipe, filled with yellow clay, cobbles, brown silty patches, pipe filled with very soft gritty yellow clay. Diam = 0.8m, D = 0.30m.
- 1134/1135 Two post-holes, fill of grey clay, some charcoal flecks, brown silt lumps. 1134 Diam = 0.10m, 1135; Diam = 0.08m. D of both unrecorded.
- 1136 Stakehole, fill of light brown clay silt, gravel. Diam = 0.11m, D = unrecorded.
- 1137 Post-trench aligned E-W, fill of yellow mixed clays, some gravel, cobbles. Overlying original trench are two shallow trenches from construction of 494. Dimensions unrecorded.
- 1140 Revetment wall for oven 1020 and clay spread - volc stones set in a row in yellow clay with pebbles and orange clay lumps. Le = 2.36m, Wth = 0.28m, D = 0.08m.
- 1141 Equivalent to 1509. Stone wall/sill beam trench cut into sequence of rake-out dumps. Volc stones and a few cobbles, fill of dark brown clay, charcoal, burnt clay flecks, gravel. Le = unrecorded, Wth = 0.22m, D = 0.08m.



- 1183-84 Post-holes in 1101. Diam = 0.20m for both; D, fills = unrecorded.
- 1185-88 Post-holes in 1126, diams = 0.26, 0.18, 0.15, 0.22m, W to E. D, fills = unrecorded.
- 1189-94 Stakeholes in 1126, diam = 0.06m. D, fills = unrecorded.
- 1195 Post-hole in 1132, small. Diam = 0.09m, D, fill = unrecorded.
- 1196 Post-pipe in 1129, Diam = 0.08m, D, fill = unrecorded.
- 1198-1200 Post-pipes in 864. Diams = 0.26m, D, fill = unrecorded.
- 1201-10 Stakeholes in 1090. Diams = 0.05m, D, fills = unrecorded.
- 1211 Stakehole in 1103. Diam = 0.05m, D, fill = unrecorded.
- 1212-18 Stakeholes in 1137. Diams = 0.05m, D, fills = unrecorded.
- 1219 Stakehole in 1132. Diam = 0.07m, D, fill = unrecorded.
- 1344 Layer in small ditch, possibly subsided turf, greeny grey clay, occ charcoal flecks. D = 0.08m.
- 1345 Layer in small ditch, yellow sandy clay, tiny pea grit traces. D = 0.04m.
- 1346 Layer in small ditch 620, yellow clay sandy, charcoal flecks, iron panning, greenish grey (possibly turf) clay. D = 0.26m.
- 1347 Layer in small ditch 620. Same as 1348 for composition. D = 0.10m.
- 1348 Layer in small ditch 620. Dull orange clay, pink mudstone traces, charcoal flecks, occ stones. D = 0.20m.
- 1349 Layer in small ditch 620. Dull orange clay, pink mudstone (more than 1348) charcoal, occ stones. D = 0.1-0.4m.
- 1351 Stakehole within 1520. Under base gravels of 1020. Dimensions, fill unrecorded.
- 1401 Turf clay - greeny grey clay, iron panning traces. D = 0.02m.
- 1402 Clay spread over 1401, pink culm clay, orange clay traces on bottom, D = 0.08m.
- 1441 Cut for ditch, possibly the extreme outer edge of large defensive ditch. Only a small amount on section.
- 1457 Degraded trampled turf - dull grey clay with charcoal flecks. D = 0.06m.
- 1458 Ditch - upcast residue of orange clay, loam traces, pea grit, stones. D = 0.14m.
- 1465 Layer in 999 - light yellow brown clay loam, occ charcoal flecks, stones. D = 0.1-0.32m.
- 1466 Layer in 999 - light rusty brown compact clay, less sandy than 1467. D = 0.16m.
- 1467 Layer in 999 - light ivory/yellow clay loam, light brown clay lumps, orange clay traces. D = 0.10-0.40m.
- 1468 Layer in 999 - light ivory yellow clay loam, grey clay lumps, occ pebbles. D = 0.04-0.40m.
- 1469 Layer in 999 - light yellow/brown clay loam, sandy silty, oyster traces, charcoal. D = 0.10m.
- 1470 Layer in 999 - orange brown clay loam, cleaner than 1471, but still gritty with many stones. D = 0.35m.
- 1471 Layer in 999 - dirty dull brown clay loam, very stony and gritty, mixed clay lumps. D = 0.2m.
- 1472 Layer in 999 - dull orange clean clay, ww pebbles, occ charcoal flecks. D = 0.26m.
- 1473 Scoop of material accumulated N of the oven complex. Light orange/yellow coarse clay, brown clay loam traces, charcoal and very small pebbles. D = 0.09m.
- 1474 Surface occurring to N of oven complex - very light orange/beige clay loam, pea gravel, small pebbles. D = 0.04m.
- 1475 Layer of degraded turf, possibly equivalent to 1485; light grey clay yellow clay traces, occ charcoal flecks - possibly trampled during building of early fortress installations. D = 0.06m.
- 1476 Small clay spread, soft dull pink clay. D = 0.02m.
- 1477 Layer in accumulation to N of oven complex - dull grey brown clay loam, charcoal flecks, shell traces, small yellow clay flecks. D = 0.06m.
- 1478 Layer to N of oven complex of dull brown clay loam, gravelly, ww pebbles. D = 0.06m.
- 1479 Layer to N of oven complex, dull orange red fine sandy gravel, charcoal, pea gravel traces. D = 0.04m.
- 1480 Rampart tail clay - very dull ivory/yellow clay, light grey clay patches, iron panning. Spreading from back of rampart deposited during construction. D = 0.12m.
- 1481 Clay spread - yellow clay, pebbles, stones, less grey clay than 1521. Could be associated with back filling of 1521. D = 0.05m.
- 1482 Layer of dark brown clay loam, some charcoal, small mixed clay lumps, pea gravel. To N of oven complex. D = 0.12m.

- 1142 Spread of grey black ash and charcoal, some dark brown clay, few burnt clay specks. A rake-out spread associated with 1020. D = 0.02m.
- 1143 Dump layer of dark brown clay, yellow/orange clay lumps, charcoal, some burnt clay specks. Possible levelling over 1140 or associated with 1020. D = 0.06m.
- 1144 Dump layer of grey brown clay, yellow orange clay lumps, charcoal, large burnt clay lumps, similar to 1143, possibly part of the same dump. D = 0.10m.
- 1145 Layer of dark brown clay and ash, charcoal, burnt clay specks - oven rake-out. D = 0.03m.
- 1146 Dump layer of dark brown clay, with yellow/orange clay lumps, charcoal, some burnt clay specks. D = 0.02m.
- 1147 Layer of charcoal and ash rake-out from 1020, gravel, some burnt clay specks trampled to form a surface. Same as 985, contemporary with 1148. D = 0.18m.
- 1148 Dump of mixed charcoal, burnt clay, yellow clay sand, with a trampled surface. Possible floor horizon during use of 1020. D = 0.08m.
- 1149 Levelling dump (part of) for the stone and cobbled floor, mid brown clay sand, crumbly yellow clay lumps, charcoal, burnt clay specks, pebbles. Under 1150. D = unrecorded.
- 1150 Dump of trampled yellow clay, few charcoal specks, pebbles; this surface (trampled) had a number of volc stones and cobbles forming a floor. D = 0.06m.
- 1151 Dump of light brown clay and clay sand, with some charcoal, burnt clay, ash, gravel - overlies 1150. D = 0.06m.
- 1152 Dump layer of light brown charcoal/clay and, burnt clay, ash and gravel, oven rake-out above 1151. D = 0.04m.
- 1153 A laminated build-up of charcoal, ash, clay sand, rake-out from oven 1020. Grey black, charcoal ash build-up in lenses. D = 0.02-0.2m.
- 1154 Dump layer of light brown compact clean clay over 1155. D = 0.04m.
- 1155 Charcoal dump, mid brown clay sand, with much charcoal, pebbles. D = 0.02m.
- 1156 Dump layer of red clay with a few charcoal specks, trodden surface, possibly prior to construction of 1020. D = 0.08m.
- 1157 Spread of dark brown and red mixed clays, some charcoal and gravel. D = 0.02m.
- 1158 Dump of grey compact clay, some charcoal. gravel. D = 0.03m.
- 1159 Dump layer of dark brown clay/charcoal. D = 0.04m.
- 1160 Dump of mixed yellow and pink clay, some pebbles; top fill of 1161, spills out to E and W. D = 0.08m.
- 1161 Shallow trench, fill under 1160 of mixed yellow and grey clay. Aligned N-S. Lc = 0.60m, Wth = 0.20m, D = 0.10m.
- 1162 Dump of light brown clay sand, some charcoal, few burnt clay specks, pebbles. Rises abruptly to the W where a thin lens of yellow clay marks it off from 1163. D = unrecorded.
- 1163 Dump of dark brown clay sand, much charcoal, burnt clay, pebbles, gravel. D = 0.08m.
- 1164 Dump of light brown clay sand, charcoal, pebbles. D = 0.06m.
- 1165 Dump of dark brown clay/ash/charcoal, some burnt clay. D = 0.06m.
- 1166 Dump of mid brown clay sand, charcoal, ash, pebbles, burnt clay. Infilling a hollow/depression. D = 0.30m.
- 1167 Equivalent to 1170. Dump of dark brown clay, compact, with charcoal, gravel, yellow clay lumps. grit. Overlies grey clay 1173. D = 0.03m.
- 1168 Dump, dark brown clay, charcoal, ash, cobbles, pebbles - some of the cobbles lay horizontally and the surface of the dump was more compacted than the lower levels - possibly trampled surface? D = 0.04m.
- 1169 Dump of yellow brown clean clay sand, compact but soft, with a few pebbles and charcoal flecks. D = 0.16m.
- 1170 Dump overlying the grey clay horizon, composition as 1167. D = 0.03m.
- 1171 Dump/infill at top of 1172 - mid brown clay sand, charcoal, burnt clay, pebbles. D = 0.06m.
- 1172 Equivalent to 1541. Grey clay, some charcoal, some yellow clay lumps. Bottom fill of a small post-trench aligned N-S, Lc = 0.6m, Wth = 0.44m, D = 0.2m.
- 1173 Post-trench, aligned N-S, main front wall of earliest military building line. Fill of light grey/brown clay sand and gravel, yellow and grey clay lumps, pebbles. Lc = 0.56m, Wth = 0.37m, D = 0.35m.
- 1174 Grey clay turf horizon - undisturbed turf line. D = 0.04m.
- 1175 Dump/subsidence fill, light brown clean clay. D = unrecorded.
- 1176 Shallow gully, E-W aligned. Fill of light yellow brown mixed clays and clay sands, gravel. Possibly drip-trench parallel to 1137 to the S. Lc = 1.6m, Wth = 0.24m, D = unrecorded.
- 1178-82 Post-holes (scattered) to NE of 996, fill unrecorded. Diams from 0.15m (1178) to 0.08m (1180).



- 1483 Clay patch to N of oven complex, dull orange red clay, few impurities. D = 0.07m.
- 1484 Layer to N of oven complex, similar to 980 but lighter in colour with more clay content. D = 0.11m.
- 1485 Layer, possibly degraded turf, pale grey clay, iron panning traces, occ charcoal flecks, small stones. To N of oven complex. D = 0.11m.
- 1486 Layer to N of oven complex, dull orange clay/clay loam, charcoal flecks, loam traces, occ pebbles, stones. D = 0.14m.
- 1487 Layer to N of oven complex - dull orange clay loam, gravel, small pebbles. D = 0.08m.
- 1489 Layer in NE corner - bright orange clay with small pebbles and gravel. D = 0.09m.
- 1491 Layer, possibly natural - very dull yellow clay, considerable iron panning. D = 0.04m.
- 1492 Possibly degraded turf, very dull grey clay, iron panning traces. D = 0.04m.
- 1493 Post-tube for 914. Dull grey-brown clay loam, ww pebbles, stones, charcoal traces, mixed clay lumps, pink culm traces. D = 1.45m, Diam = 0.4m.
- 1494 Post-tube for 1495, dark brown clay loam, ww pebbles, clay lumps/gravel. D = 0.46m, too truncated for Diam.
- 1495 Interval tower post-pit. Fill of mixed brown orange clay loam, pink culm clay traces, ww pebbles, stones, clay lumps, volc stone chippings. Diam = 1.60m, D = 0.3m.
- 1496 Turf - dull grey clay, charcoal and iron panning traces, occ stones. D = 0.10m.
- 1497 Pre-Roman ground surface. Slightly orange-brown clay loam, occ charcoal fleck.
- 1498 Pre-Roman sub-soil. Dull grey-brown clay loam.
- 1500 Trench for water-pipe - volc stones inconsistently laid on either side of pipe. Fill of dull brown clay loam, firm, small volc chippings, charcoal, clay lumps, pebbles. Le = 4.2m, D = 0.3m, Wth = 0.7m.
- 1501 Water-pipe infill - partial void over small pebbles/gravel, dark brown clay loam. Wth = 0.12m, D = 0.12m.
- 1502 Street patch, small pebbles with occ stone in a gritty clay loam. D = 0.11m.
- 1503 Layer of dull red burnt clay, charcoal flecks, unburnt clay flecks. To N of oven complex. D = 0.2m.
- 1504 Layer to N of oven complex, of light brown clay loam, gritty with small pebbles/gravel. D = 0.04m.
- 1505 Layer to N of oven complex, same as 1504. D = 0.06m.
- 1506 Layer to N of oven complex, light orange sandy clay, occ charcoal flecks. D = 0.12m.
- 1507 Layer to N of oven complex, grey brown clay loam, mixed clay lumps. D = 0.08m.
- 1508 Layer of grey/brown/orange clay loam with small pebbles to N of oven complex. D = unrecorded.
- 1509 Small wall, volc stones, one course, set into light yellow clay. Possibly associated with 1020. Dimensions unrecorded.
- 1510 Clay oven make-up, bright yellow clay, few impurities, over 1020-10, also forms base for 1022. D = unrecorded.
- 1511 Post-trench, possibly part of 893. Fill of yellow brown mixed clay, turf clay lumps, ww pebbles, occ charcoal. Dimensions unrecorded.
- 1513 Trench - possibly early water-pipe trench. 2 fills: 1) dark brown clay loam; volc stones, charcoal, gravel, ww pebbles; 2) light brown clay sand with charcoal, burnt clay flecks. Le = 2.4m, Wth = 0.90m, D = 0.30m.
- 1514 Layer, dull orange clay loam, charcoal, burnt clay flecks. D = 0.16m.
- 1515 Clay spread; possibly rampart tail, over degraded grey turf. Very light brown clay, few impurities. D = 0.06m.
- 1517 Post-hole and post-pipe - post-hole fill: dull red clay, pea grit, pebbles, oyster traces; post-pipe fill: clay loam, charcoal, small stones, pebbles, clay traces. Diam = 0.6m (0.2m), D = 0.18m (0.46m).
- 1518 Post-hole and post-pipe - post-hole fill: dull red clay, gravel, some stones and pebbles; post-pipe fill: slightly yellow brown, pea grit, small stones, occ charcoal flecks. Diam = 0.56m (0.12m), D = 0.38m (0.44m).
- 1519 Large volc stones with some stone and pebbles set in dark charcoal, abundant loam. Le = 0.7m, Wth = 0.35m, D = unrecorded.
- 1520 Post-trench, aligned E-W, fill of yellow clay, with grey clay lumps, iron panning, occ stones, pebbles, occ charcoal. Clay spreads over side of trench. Le = 3m, Wth = 0.3m, D = 0.3m.
- 1521 Post-trench, no posts visible, parallel to 1520. Fill of yellow clay, occ charcoal, pebbles, stones, grey clay lumps. Iron panned. Le = 4.46m, Wth = 0.3m, D = 0.34m.
- 1522 Post-trench, aligned N-S, fill of grey/yellow clay, occ stone, charcoal. Le = 0.6m, Wth = 0.3m, D = 0.43m.
- 1524 Turf - blue grey turf clay, occ stone, iron panning, few charcoal flecks. D = 0.10m.
- 1530 Layer of yellow gritty clay, very small pebbles. D = 0.08m.

- 1531 Water-pipe strut in 1500, dark brown clay loam, dirty pink clay flecks. Le = 0.42m, Wth = 0.2m, D = 0.10m.
- 1532 Water-pipe strut in 1500, dark purple brown clay, gravel, dirty pink clay. Le = 0.38m, Wth = 0.21m, D = 0.14m.
- 1533/34 Water-pipe struts, very dark brown clay loam, oyster traces, charcoal, small pebbles. Le = 0.7m, Wth = 0.2m, D = unrecorded.
- 1535 Layer of charcoal and daub to N of oven complex - oysters, daub and clay lumps. Spreads to N becoming thinner. D = 0.04m.
- 1536 Layer to N of oven sequence, dull orange clay loam, gravel, dull orange clay lumps. D = 0.08m.
- 1537-40 Possible stakeholes, fill of dark brown soapy silt. Diam = 0.10m, D = unrecorded.
- 1541 Foundation/post-trench, fill of red/black burnt clay/charcoal, some volc chippings, mixed clay flecks, Fill overfills 1522. Le = 0.6m, Wth = 0.2m.
- 1542 Post-hole, fill of black clay/loam/charcoal, mixed clay flecks, burnt clay, occ stones. Dimensions unrecorded.
- 1543 Post-hole within 1541, fill of dull brown clay loam, shell and charcoal traces. Diam = 0.2m, D = 0.29m.
- 1544-51 Post-holes in 1520. Fills of dull grey brown clay loam, charcoal flecks. Diams = 0.14m, D = unrecorded.
- 1552 Post-hole in 1522. Fill of dull grey clay loam. Diam = 0.08m, D = unrecorded.
- 1553-55 Post-holes in 1520, fills of dark brown clay loam, charcoal flecks, daub traces. Diams = 0.10m, D = unrecorded.
- 1556 Street surface, compacted pebbles and pea grit. D = 0.02m.
- 1557 Trench, aligned E-W, fill of dull brown clay loam, gravel, small pebbles, daub, charcoal. Le = 3.4m, Wth = 0.54m, D = 0.38m.
- 1558-59 Intrusions, possibly post-holes, within 1562. Infills indistinguishable from 1557. Diams = 0.5m, D = 0.26m.
- 1560 Trench, aligned N-S, fill of grey/brown clay sand, clay lumps, small volc frags. Le = 0.9m, Wth = 0.4m, D = 0.08m.
- 1561 Oven demolition; mixed brown clay loam, charcoal, burnt/unburnt clay flecks, some pea grit. D = 0.12m.
- 1562 Trench, aligned E-W, fill of dull yellow sandy clay, freq charcoal, daub traces, red clay traces. Le = 0.4m, Wth = 0.6m, D = 0.3m.
- 1563 Oven demolition layer - dark brown/black clay loam, much charcoal. Probably equivalent to 1020-2. D = 0.3m.
- 1564 Trench, fill of grey brown clay loam, mixed clay flecks, charcoal, small pebbles. Aligned E-W. Le = 0.4m, Wth = 0.3m, D = 0.22m.
- 1565 Volc raft; volc stones with occ pebble, in reddish brown clay loam with charcoal. Make-up for 1556. D = 0.08m.
- 1566 Post-hole and post-pipe, capped by pebbles over void. Fill of: 1) dull brown clay loam; 2) fine dull red gravel/sand/clay. Just under 966. Diam = 0.24m (0.1m), D = 0.56m (0.14m).
- 1567 Possible oven construction. Orange/brown/black mixed clay/charcoal, some volc chippings. D = 0.14m.
- 1568 Layer of slightly reddish brown mixed clay loam, oysters, charcoal, pebbles, grey clay. D = unrecorded.
- 1570 Post-trench, aligned E-W, fill of light brown clay loam, daub traces, charcoal, small pebbles. Le = 0.45m, Wth = 0.3m, D = 0.16m.
- 1571 Post-hole, fill of coarse mixed clay, light orange and yellow, with ww pebbles, stones. Diam = 0.4m, D = 0.2m.
- 1572 Post-pipe for 1571, fill of dull, brown clay, small pebbles. Diam = 0.16m, D = 0.40m.



## GENERAL CONTEXT INDEX

| Context | Period | Type | Plan          | Context | Period | Type | Plan          |
|---------|--------|------|---------------|---------|--------|------|---------------|
| 160     | RM     | C    | 803, 809      | 750     | RM     | S    |               |
| 372     | RM     | F    |               | 764     | RM     | B    | 804           |
| 376     | RM     | L    |               | 765     | RM     | B    |               |
| 377     | RM     | C    |               | 769     | RM     | L    |               |
| 378     | RM     | S    |               | 770     | RM     | S/B  |               |
| 380     | RM     | L    |               | 778     | RM     | S    | 806, 808, 809 |
| 381     | RM     | L    |               | 814     | RM     | C    | 804           |
| 382     | RM     | C    |               | 815     | RM     | C    | 804           |
| 383     | RM     | L    |               | 816     | RM     | C    | 809           |
| 384     | RM     | L    |               | 817     | RM     | L    |               |
| 385     | RM     | L    |               | 822     | RM     | L    |               |
| 386     | RM     | C    |               | 823     | RM     | L    | 809           |
| 387     | RM     | L    |               | 824     | RM     | S    |               |
| 388     | RM     | C    |               | 838     | RM     | L    |               |
| 396     | RM     | F    |               | 839     | RM     | L    |               |
| 397     | RM     | S    |               | 843     | RM     | C    | 802, 803, 810 |
| 454     | RM     | F    |               | 844     | RM     | C    | 802, 803, 810 |
| 465     | RM     | L    |               | 846     | RM     | C    |               |
| 466     | RM     | L    | 809           | 847     | RM     | C    |               |
| 467     | RM     | L    |               | 848     | RM     | C    |               |
| 468     | RM     | C    | 806, 807      | 853     | RM     | C    | 809           |
| 469     | RM     | C&F  | 806, 807      | 857     | RM     | C    |               |
| 470     | RM     | L    |               | 860     | RM     | C    | 802, 808      |
| 471     | RM     | L    |               | 861     | RM     | C    |               |
| 472     | RM     | C    |               | 862     | RM     | C    |               |
| 473     | RM     | C    | 809           | 863     | RM     | C    |               |
| 474     | RM     | C    | 806, 807      | 864     | RM     | C    | 802, 810      |
| 475     | RM     | L    |               | 865     | RM     | C    |               |
| 476     | RM     | F    |               | 866/867 | RM     | L    | 802           |
| 477     | RM     | C    |               | 868     | RM     | C    | 802, 810      |
| 478     | RM     | C    |               | 869     | RM     | C    |               |
| 479     | RM     | C    |               | 870     | RM     | L/B  |               |
| 480     | RM     | L    |               | 871     | RM     | C    |               |
| 481     | RM     | C?   |               | 872     | RM     | L    |               |
| 482     | RM     | L    | 809           | 873     | RM     | L    |               |
| 483     | RM     | L    | 809           | 874     | RM     | C    |               |
| 484     | RM     | F    |               | 875     | RM     | C    |               |
| 485     | RM     | C    | 804           | 876     | RM     | C    |               |
| 486     | RM     | B    | 804           | 877     | RM     | L/S  | 810           |
| 487     | RM     | B    | 804           | 878     | RM     | L    |               |
| 488     | RM     | C    | 804           | 879     | RM     | L    | 810           |
| 489     | RM     | F    |               | 880     | RM     | L    |               |
| 490     | RM     | L    |               | 881     | RM     | L    | 810           |
| 491     | RM     | B    | 809           | 882     | RM     | L    |               |
| 492     | RM     | C    |               | 883     | RM     | L    | 810           |
| 493     | RM     | B    | 804           | 884     | RM     | L    | 810           |
| 494     | RM     | B    | 804           | 885     | RM     | L    | 810           |
| 495     | RM     | L    |               | 886     | RM     | C    | 802, 810      |
| 496     | RM     | L    |               | 888     | RM     | C    | 802, 808      |
| 497     | RM     | L    |               | 889     | RM     | S    | 802, 810      |
| 498     | RM     | L    |               | 891/892 | RM     | C    | 802, 808      |
| 499     | RM     | L    |               | 893     | RM     | C    | 802, 808, 810 |
| 620     | RM     | C    | 801, 802, 809 | 895     | RM     | S    | 802, 810      |
| 638     | RM     | B    | 804           | 896     | RM     | L    | 809           |
| 640     | RM     | S    | 804           | 897     | RM     | L    | 809           |
| 645     | RM     | C    |               | 898     | RM     | L    | 809           |
| 646     | RM     | B    |               | 899     | RM     | L    | 809           |
| 647     | RM     | ?B   |               | 900     | RM     | L    | 809           |
| 648     | RM     | B    | 804           | 903     | RM     | S    |               |
| 649     | RM     | C    |               | 904     | RM     | L    |               |
| 714     | RM     | L    |               | 905     | RM     | L    | 810           |
| 747     | RM     | B    | 804           | 906     | RM     | L    |               |
| 748     | RM     | S    |               | 907     | RM     | L    |               |
| 749     | RM     | L    |               | 908     | RM     | L    |               |



| Context | Period | Type | Plan             | Context | Period | Type | Plan     |
|---------|--------|------|------------------|---------|--------|------|----------|
| 909     | RM     | S    | 810              | 1008    | RM     | L    | 806, 807 |
| 910     | RM     | L    | 809              | 1009    | RM     | L    |          |
| 911     | RM     | L    | 809              | 1010    | RM     | S    |          |
| 912     | RM     | L    | 809              | 1011    | RM     | S    |          |
| 913     | RM     | L    | 809              | 1012    | RM     | C    |          |
| 914     | RM     | C    | 808, 809         | 1013    | RM     | C    |          |
| 915     | RM     | C    | 810, 811, 812    | 1014    | RM     | L    |          |
| 916     | RM     | C    |                  | 1015    | RM     | L    | 809      |
| 917     | RM     | C    |                  | 1016    | RM     | L    |          |
| 918     | RM     | L    |                  | 1017    | RM     | L    | 809      |
| 919     | RM     | L    |                  | 1018    | RM     | L    |          |
| 920     | RM     | C    |                  | 1019    | RM     | B    |          |
| 922     | RM     | C    |                  | 1020    | RM     | B    | 804, 810 |
| 928     | RM     | L    |                  | 1021    | RM     | C    | 810      |
| 929     | RM     | S    |                  | 1022    | RM     | L/S  |          |
| 932     | RM     | C    | 808, 810         | 1023    | RM     | L    |          |
| 939     | RM     | L    | 801-805, 807-809 | 1027    | RM     | L    |          |
| 940     | RM     | L    | 809              | 1028    | RM     | L    |          |
| 941     | RM     | L    | 809              | 1029    | RM     | L    |          |
| 942     | RM     | L    | 809              | 1030    | RM     | L    | 809      |
| 943     | RM     | L    | 809              | 1031    | RM     | L    | 809      |
| 944     | RM     | L    | 809              | 1032    | RM     | C    | 805      |
| 945     | RM     | L    | 809              | 1033    | RM     | L    |          |
| 946     | RM     | L    | 809              | 1034    | RM     | S    |          |
| 954     | RM     | L    | 809              | 1035    | RM     | L    |          |
| 957     | RM     | L    |                  | 1036    | RM     | L    |          |
| 958     | RM     | F    | 808, 810         | 1037    | RM     | C    | 806, 807 |
| 960     | RM     | L    | 812              | 1038    | RM     | S    |          |
| 963     | RM     | C    |                  | 1039    | RM     | L    |          |
| 964     | RM     | B    |                  | 1040    | RM     | C    | 804      |
| 965     | RM     | S    | 812              | 1041    | RM     | B    | 805      |
| 966     | RM     | S    | 806, 809, 812    | 1042    | RM     | L    |          |
| 970     | RM     | L    | 809, 810, 812    | 1043    | RM     | L    |          |
| 971     | RM     | C    |                  | 1044    | RM     | L    |          |
| 972     | RM     | L    | 809, 812         | 1045    | RM     | L    |          |
| 973     | RM     | C    | 804, 809         | 1046    | RM     | C    | 805      |
| 974     | RM     | L    | 809              | 1047    | RM     | L    |          |
| 975     | RM     | L    | 809              | 1048    | RM     | C    | 805      |
| 976     | RM     | L    | 809              | 1049    | RM     | L    | 805, 809 |
| 977     | RM     | L    |                  | 1050    | RM     | L    | 809      |
| 978     | RM     | L    | 809              | 1051    | RM     | L    | 809      |
| 979     | RM     | L    |                  | 1052    | RM     | L    |          |
| 980     | RM     | L    | 809              | 1053    | RM     | L    |          |
| 981     | RM     | L    | 809              | 1054    | RM     | S    | 805, 809 |
| 982     | RM     | L    | 809              | 1055    | RM     | C/L  |          |
| 983     | RM     | L    | 812              | 1056    | RM     | M    |          |
| 984     | RM     | L    | 812              | 1057    | RM     | B    |          |
| 985     | RM     | L    |                  | 1058    | RM     | L    | 809      |
| 986     | RM     | S    |                  | 1059    | RM     | L    |          |
| 987     | RM     | M    | 801, 802         | 1060    | RM     | F    |          |
| 988     | RM     | L    |                  | 1061    | RM     | C    | 805, 809 |
| 990     | RM     | C    | 811              | 1068    | RM     | F    |          |
| 991     | RM     | L    |                  | 1071    | RM     | B    | 805      |
| 992     | RM     | C    | 802, 808         | 1072    | RM     | B    | 801      |
| 994     | RM     | C    |                  | 1074    | RM     | B    | 807, 810 |
| 995     | RM     | S    |                  | 1075    | RM     | B    | 805      |
| 996     | RM     | C    | 802, 809, 910    | 1077    | RM     | L    | 807      |
| 998     | RM     | F    | 802, 803         | 1078    | RM     | L    |          |
| 999     | RM     | C    |                  | 1090    | RM     | C    | 801      |
| 1000    | RM     | L    |                  | 1091    | RM     | C    | 801      |
| 1002    | RM     | C    | 807, 809         | 1092    | RM     | L    | 805      |
| 1003    | RM     | B    | 805, 809         | 1093    | RM     | L    | 809      |
| 1004    | RM     | C    |                  | 1094    | RM     | S    | 805      |
| 1005    | RM     | L    |                  | 1095    | RM     | C    | 805, 810 |
| 1006    | RM     | C    | 805, 809         | 1096    | RM     | B    | 805      |
| 1007    | RM     | L    |                  | 1097    | RM     | F    |          |

| <i>Context</i> | <i>Period</i> | <i>Type</i> | <i>Plan</i> | <i>Context</i> | <i>Period</i> | <i>Type</i> | <i>Plan</i> |
|----------------|---------------|-------------|-------------|----------------|---------------|-------------|-------------|
| 1098           | RM            | C           |             | 1167           | RM            | L           | 810         |
| 1099           | RM            | L           |             | 1168           | RM            | L           | 810         |
| 1100           | RM            | B           | 805         | 1169           | RM            | L           | 810         |
| 1101           | RM            | C           | 801         | 1170           | RM            | L           | 810         |
| 1102           | RM            | C           | 801         | 1171           | RM            | F           | 810         |
| 1103           | RM            | C           | 801, 810    | 1172           | RM            | F           | 810         |
| 1104           | RM            | C           | 801, 810    | 1173           | RM            | C           | 801, 810    |
| 1105           | RM            | L           |             | 1174           | RM            | L           | 810         |
| 1106           | RM            | B           | 805         | 1175           | RM            | F           | 810         |
| 1107           | RM            | S           | 810         | 1176           | RM            | C           |             |
| 1108           | RM            | C           | 805, 810    | 1178-82        | RM            | C           | 802         |
| 1109           | RM            | L           | 809, 810    | 1183-84        | RM            | C           | 801         |
| 1110           | RM            | L           | 805, 809    | 1185-88        | RM            | C           | 801         |
| 1111           | RM            | B/L         | 810         | 1189-94        | RM            | C           | 801         |
| 1112           | RM            | S           | 809         | 1195           | RM            | C           | 801         |
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| 1185-88        | -             | -            | -                     | 1507           | 32              | -            | -                  |
| 1189-94        | -             | -            | -                     | 1508           | -               | -            | -                  |
| 1195           | -             | -            | -                     | 1509           | -               | -            | -                  |
| 1196           | -             | -            | -                     | 1510           | -               | -            | -                  |
| 1198-1200      | -             | -            | -                     | 1511           | -               | -            | -                  |
| 1201-10        | -             | -            | -                     | 1513           | 15, 32, 53      | 810          | 802, 806, 807      |
| 1211           | -             | -            | -                     | 1514           | 15              | -            | 806, 807           |
| 1212-18        | -             | -            | -                     | 1515           | 15              | -            | 806, 807           |
| 1219           | -             | -            | -                     | 1517           | 49              | 810          | 805                |
| 1344           | 3             | 809          | 803                   | 1518           | 52              | 810          | 802                |
| 1345           | 3             | 809          | 803                   | 1519           | -               | -            | -                  |
| 1346           | 3             | 809          | 803                   | 1520           | 44              | 810          | 801, 804           |
| 1347           | 3             | 809          | 803                   | 1521           | 44              | 810          | 801, 804           |
| 1348           | 3             | 809          | 803                   | 1522           | -               | -            | -                  |
| 1349           | 3             | 809          | 803                   | 1524           | 15              | -            | 806, 807           |
| 1351           | -             | -            | -                     | 1530           | 15              | -            | 806, 807           |
| 1401           | 63            | -            | -                     | 1531           | -               | -            | -                  |
| 1402           | 63            | -            | -                     | 1532           | -               | -            | -                  |
| 1441           | 63            | -            | -                     | 1533/34        | -               | -            | -                  |
| 1457           | 62            | -            | -                     | 1535           | -               | -            | -                  |
| 1458           | 62            | -            | -                     | 1536           | 32              | -            | -                  |
| 1465           | 62            | -            | -                     | 1537-40        | -               | -            | -                  |
| 1466           | 62            | -            | -                     | 1541           | -               | -            | -                  |
| 1467           | 62            | -            | -                     | 1542           | -               | -            | -                  |
| 1468           | 62            | -            | -                     | 1543           | -               | -            | -                  |
| 1469           | 62            | -            | -                     | 1544-51        | 56              | -            | -                  |
| 1470           | 62            | -            | -                     | 1552           | -               | -            | -                  |
| 1471           | 62            | -            | -                     | 1553-55        | 48              | -            | -                  |
| 1472           | 62            | -            | -                     | 1556           | 32              | -            | -                  |
| 1473           | 44            | 810          | 801, 804              | 1557           | 44              | 810          | 801, 804           |
| 1474           | 44            | 810          | 801, 804              | 1558/59        | 44              | 810          | 801, 804           |
| 1475           | 32            | -            | -                     | 1560           | -               | -            | -                  |
| 1476           | 32            | -            | -                     | 1561           | 32, 44          | 810          | 801, 804           |
| 1477           | 32            | -            | -                     | 1562           | 44              | 810          | 801, 804           |
| 1478           | 32            | -            | -                     | 1563           | 44              | 810          | 801, 804           |
| 1479           | 32            | -            | -                     | 1564           | 44              | 810          | 801, 804           |
| 1480           | 44            | 810          | 801, 804              | 1565           | -               | -            | -                  |
| 1481           | 44            | 810          | 801, 804              | 1566           | 53              | 810          | 802                |
| 1482           | 32, 44        | 810          | 801, 804              | 1567           | 32, 44          | 810          | 801, 804           |
| 1483           | 44            | 810          | 801, 804              | 1568           | -               | -            | -                  |
| 1484           | 28            | 809          | 802, 808              | 1570           | 44              | 810          | 801, 804           |
| 1485           | 28            | 809          | 802, 808              | 1571           | 57              | 810          | 802                |
| 1486           | 44            | -            | 801, 804              | 1572           | 57              | 810          | 802                |
| 1487           | 44            | 810          | 801, 804              |                |                 |              |                    |
| 1489           | 55, 44        | 810          | 801, 802, 804,<br>808 |                |                 |              |                    |
| 1491           | 55            | 810          | 802, 808              |                |                 |              |                    |
| 1492           | 55            | 810          | 802, 808              |                |                 |              |                    |
| 1493           | 28            | 809          | 802, 808              |                |                 |              |                    |
| 1494           | 28            | 809          | 802, 808              |                |                 |              |                    |
| 1495           | 28            | 809          | 802, 808              |                |                 |              |                    |
| 1496           | 28            | 809          | 802, 808              |                |                 |              |                    |
| 1497           | 28            | -            | -                     |                |                 |              |                    |



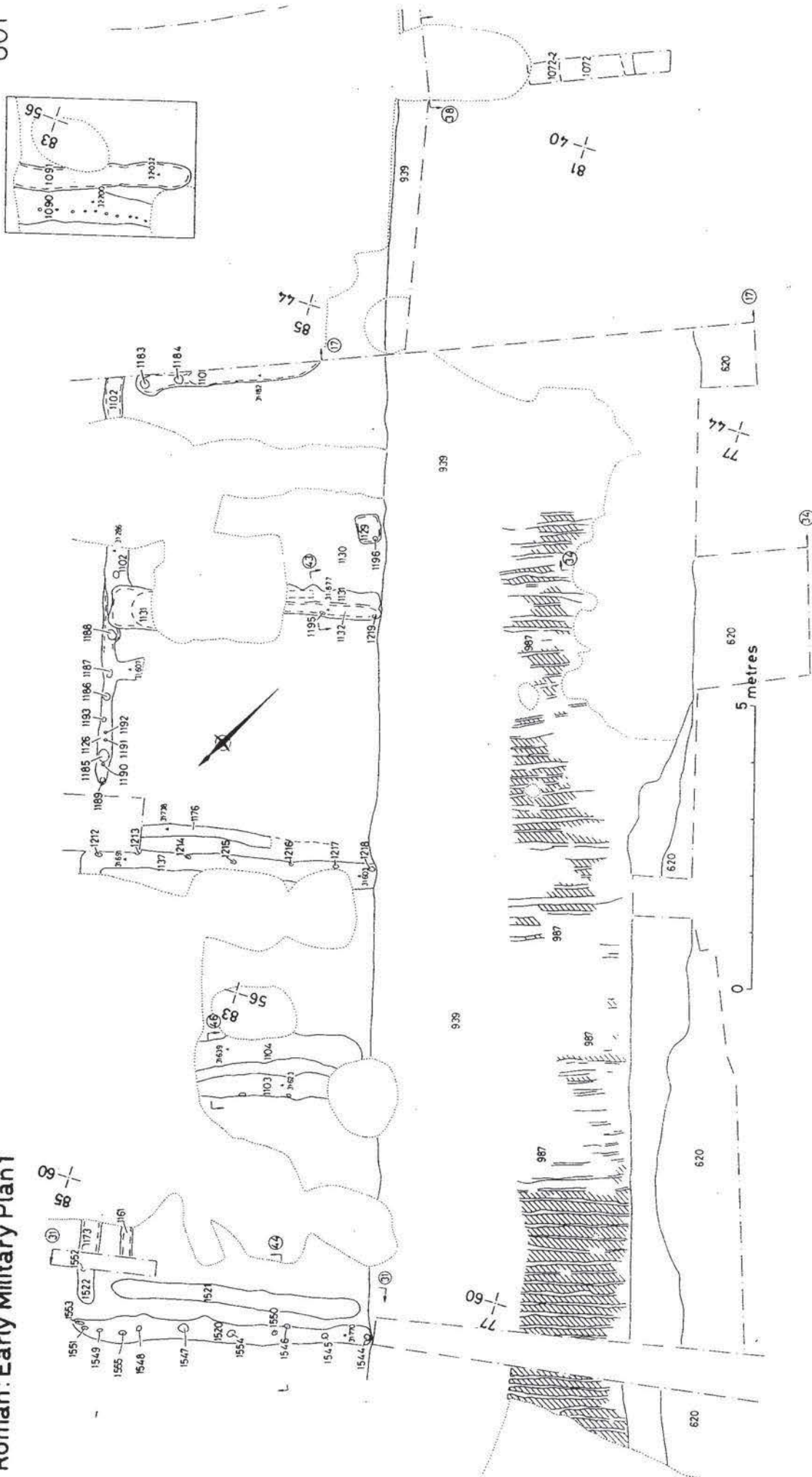
## LIST OF FIGURES RELATING TO THE 800 SERIES PLANS

- Fig. 14 Plan of the early military remains (801) Scale 1:100 (page 67).
- Fig. 15 Plan of the early military remains (802) Scale 1:100 (page 68).
- Fig. 16 Plan of the early military remains plus Section 26 (803) Scale 1:100 (page 69).
- Fig. 17 Plan of the development of the ovens in Building 4 (804) Scale 1:100 (page 70).
- Fig. 18 Plan of the development of the ovens in Building 5 (805) Scale 1:100 (page 71).
- Fig. 19 Plan of the later military remains in the south-east of the site (806) Scale 1:100 (page 72).
- Fig. 20 Plan of the later military remains (807) Scale 1:100 (page 73).
- Fig. 21 Plan of the later military remains (808) Scale 1:100 (page 74).
- Fig. 22 Sections through Roman military and civil deposits (809) Scale 1:100 (page 75).
- Fig. 23 Sections through Roman military and civil deposits (810) Scale 1:100 (page 76).

# EXETER: FRIERNHAY STREET 1981

## Roman: Early Military Plan 1

801







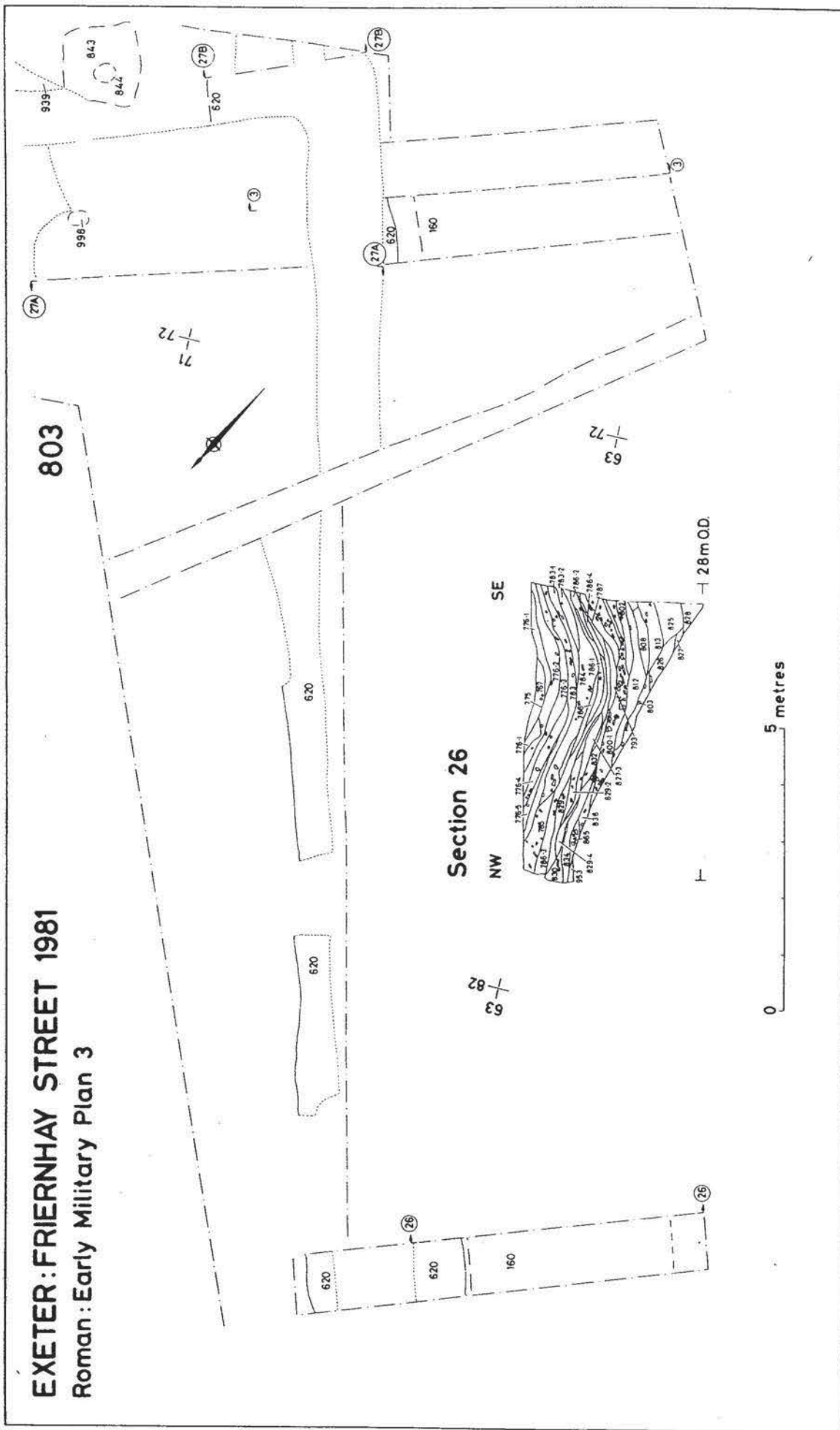


Fig. 16 Plan of the early military remains plus section 26 (803) Scale 1:100.

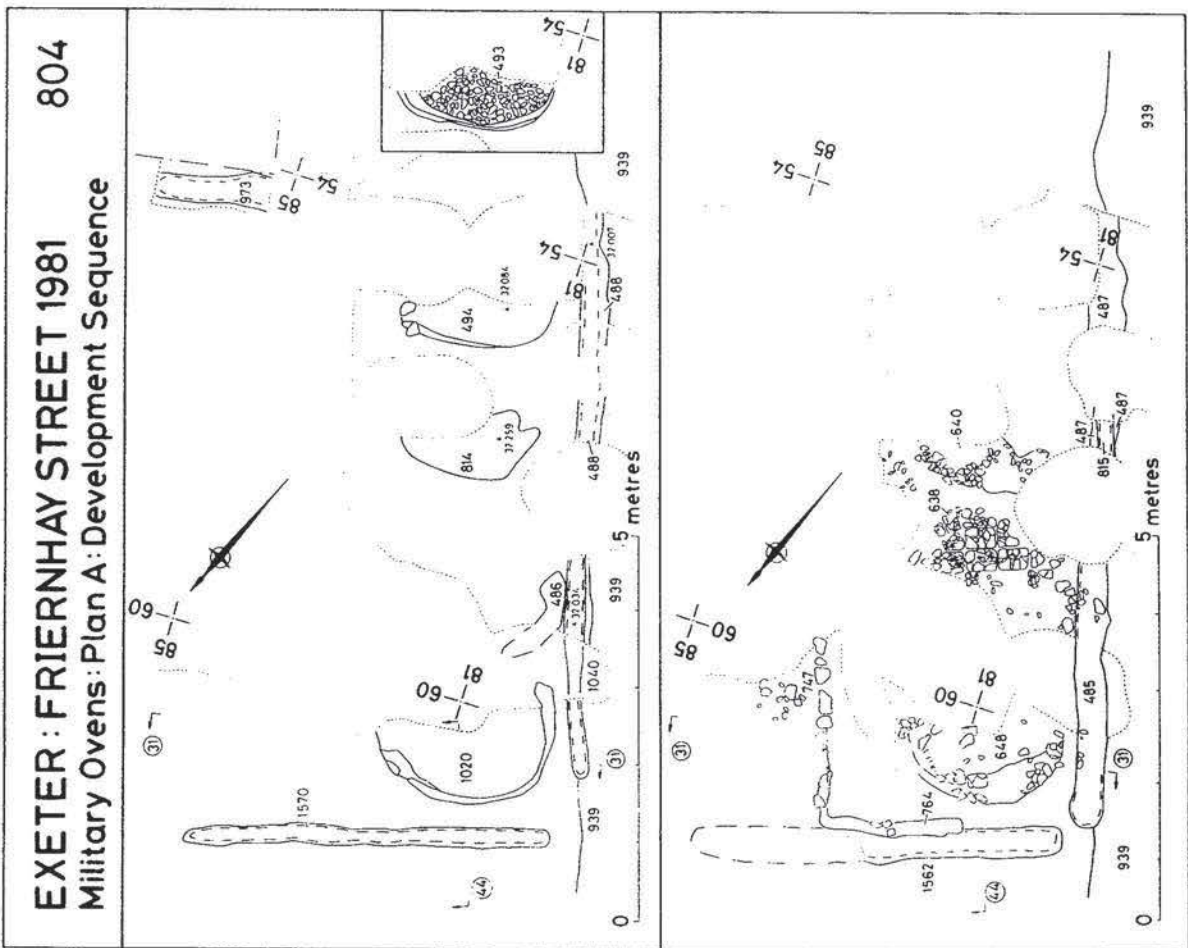


Fig. 17 Plan of the development of the ovens in Building 4 (804) Scale 1:100.

**EXETER: FRIERNHAY STREET 1981**  
**Military Ovens Plan B : Development Sequence**

805

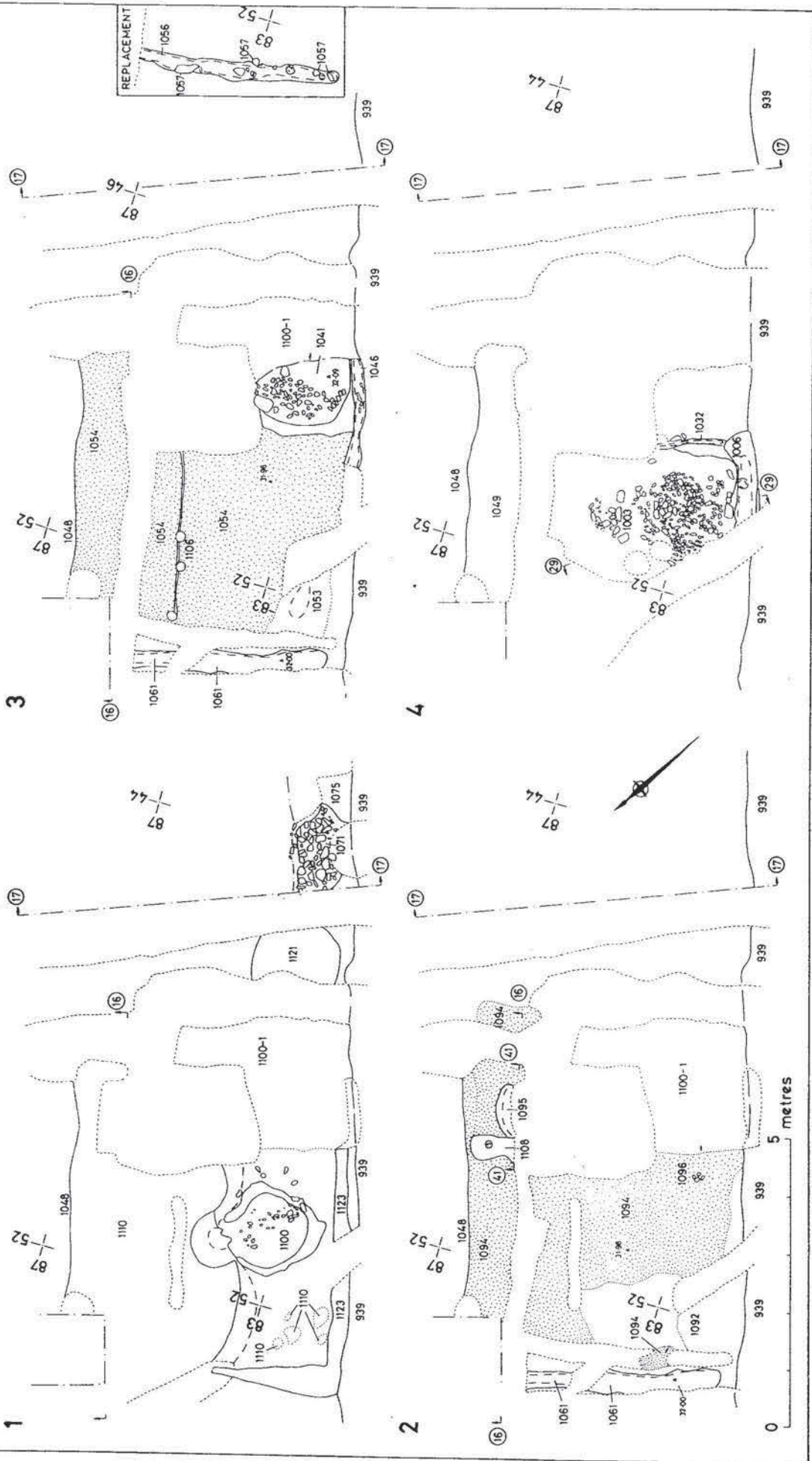


Fig. 18 Plan of the development of the ovens in Building 5 (805) Scale 1:100.



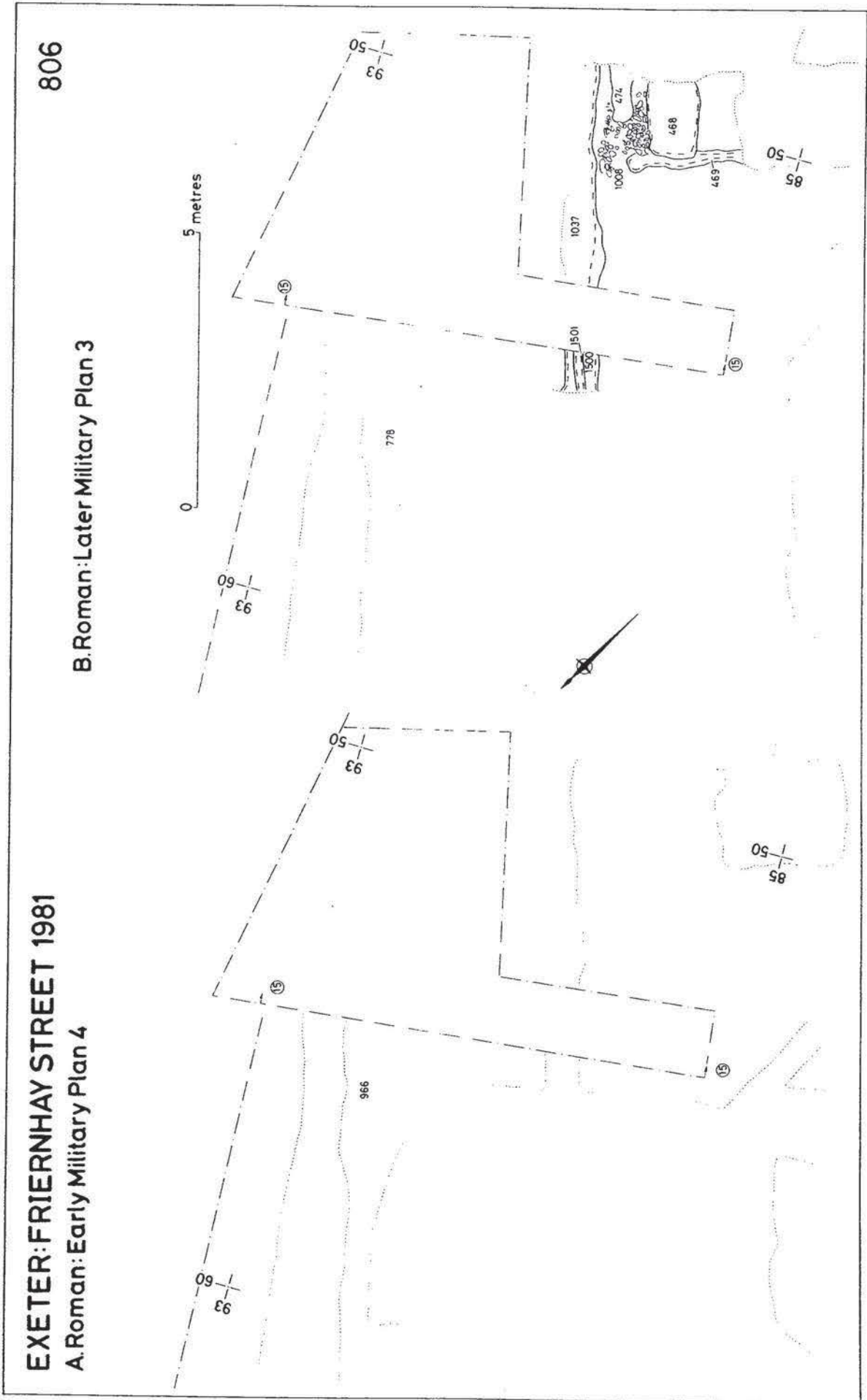


Fig. 19 Plan of the military remains in the south-east of the site (806) Scale 1:100.



EXETER: FRIERNHAY STREET 1981  
Roman Later Military Plan 2

808

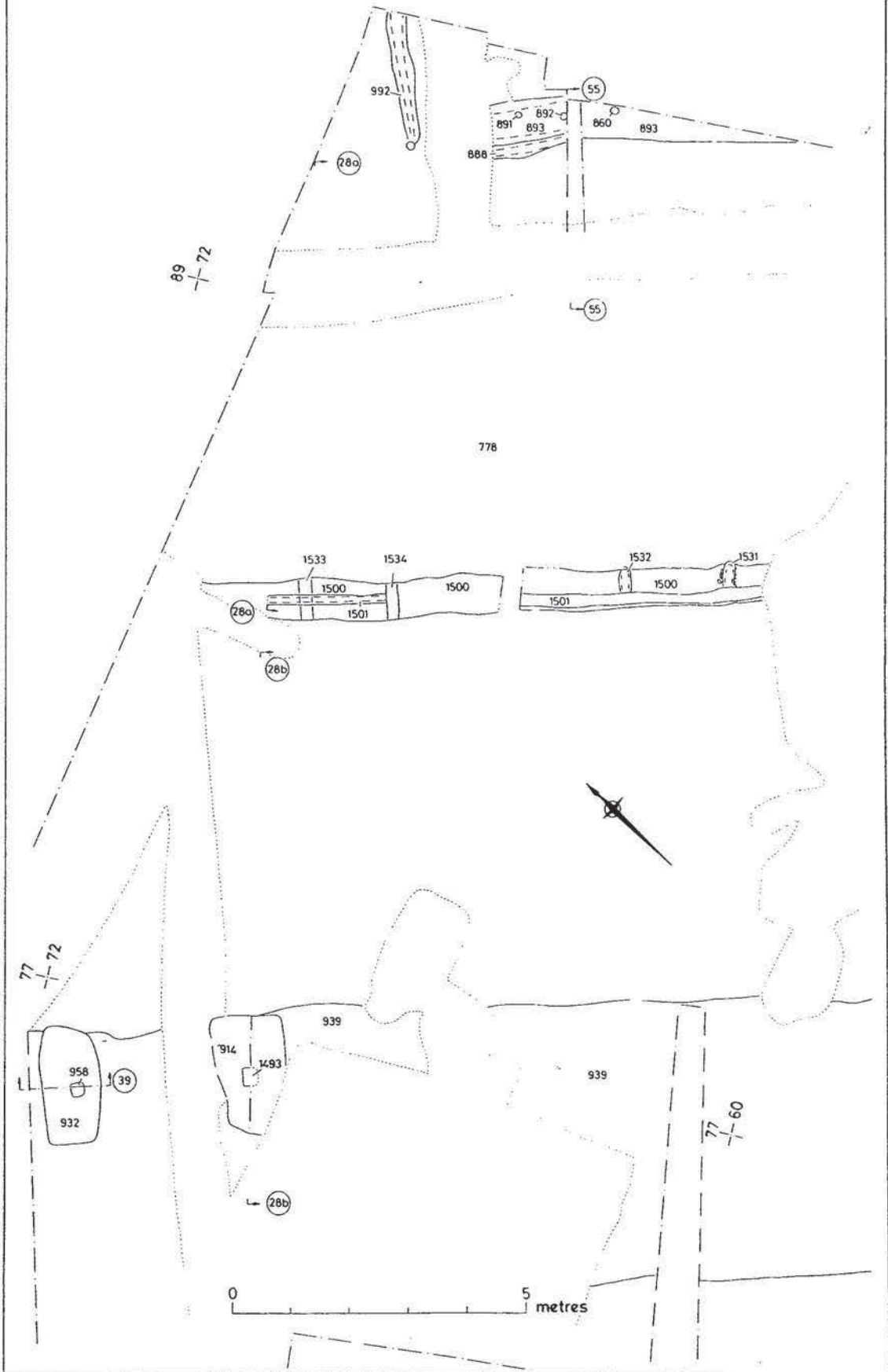


Fig. 21 Plan of the later military remains (808) Scale 1:100.



# EXETER: FRIERNHAY STREET 1981

Roman

Sections

809

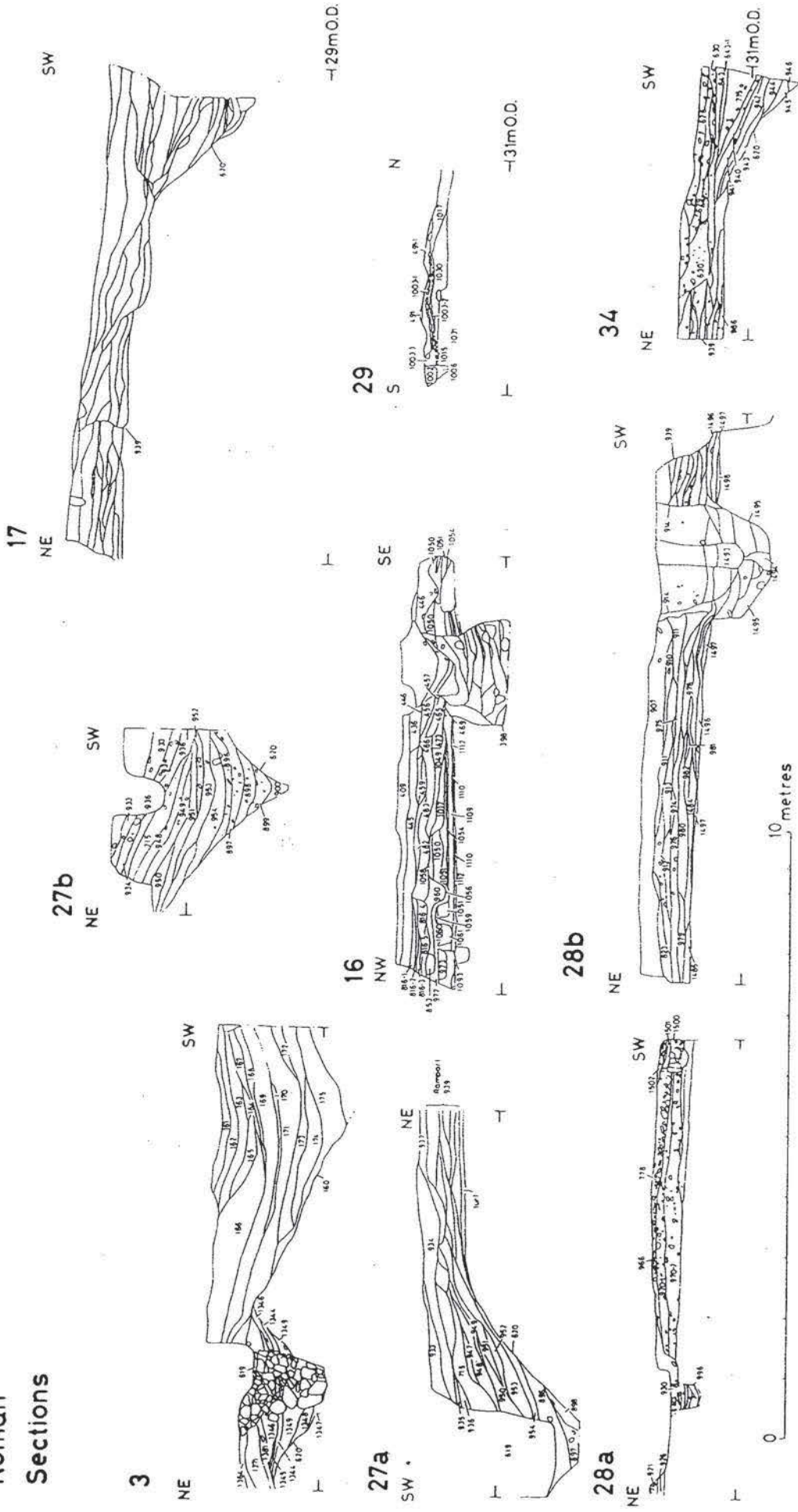


Fig. 22 Sections through the Roman military and civil deposits (809) Scale 1:100.

# EXETER: FRIERNHAY STREET 1981

810

## Roman Sections

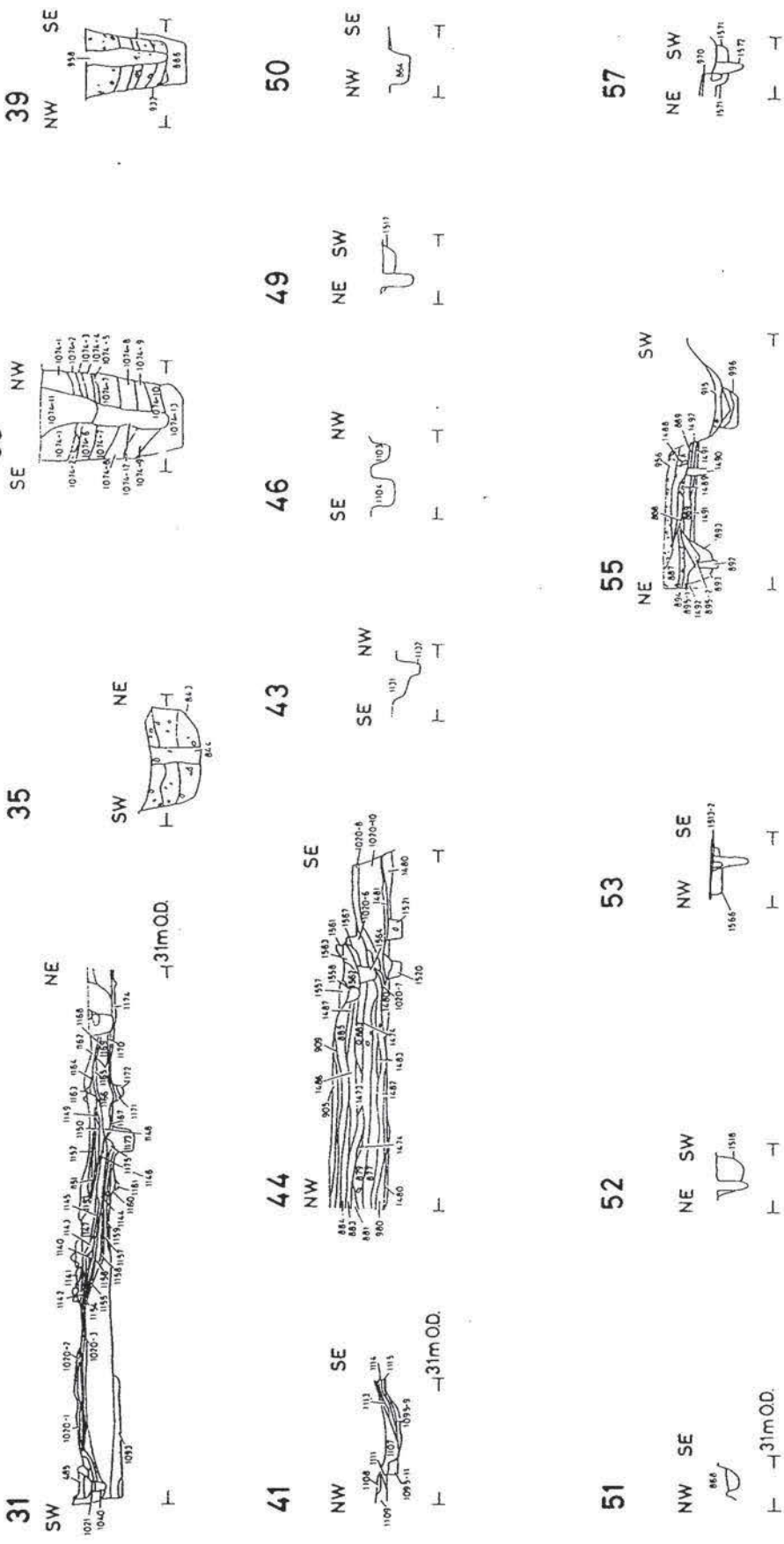


Fig. 23 Sections through the Roman military and civil deposits (810) Scale 1:100.

## SECTION 3

## 3 Introduction

The first part of this section gives a listing of the pottery finds ordered by context. A coin list ordered by context is also provided. A photographic index follows these listings.

## 3.1 The finds listings and other indices

List of abbreviations for finds inventory

| <i>Fabric No.</i> | <i>Type</i>  |
|-------------------|--|
| 5*                | South Devon Ware   |
| 31*               | South-East Dorset Black-Burnished Ware                     |
| 40*               | South-Western Black-Burnished Ware                         |
| 81*               | Hand-Made Grey-Burnished Ware                              |
| 125*              | Exeter Micaceous Grey Ware                                 |
| 151*              | Exeter Sandy Grey Ware                                     |
| 190*              | Fortress Ware B  |
| 191*              | Fortress Ware C  |
| 192               | Fortress Ware D  |
| 220               | Butt Beaker (EAR 1)  |
| 371*              | Fortress Ware A  |
| 372*              | Imitation <i>Terra Nigra</i> Type                          |
| 373*              | Imitation <i>Terra Nigra</i> Type                          |
| 375*              | Imitation <i>Terra Nigra</i> Type                          |
| 405*              | Flagon Fabric  |
| 406*              | Flagon Fabric  |
| 435*              | Flagon Fabric  |
| 440*              | Flagon Fabric  |
| 451*              | Flagon Fabric  |
| 500               | Samian-South Gaulish Type                                  |
| 501               | Samian-Central Gaulish Type                                |
| 503               | Lyon Ware (Pre-Flavian)                                    |
| 504               | Spanish Colour Coat (Pre-Flavian)                          |
| 507               | Unspecified Rough Cast Ware                                |
| 516/1             | Pompeian Red Ware Peacock Fabric 1                         |
| 516/3             | Pompeian Red Ware Peacock Fabric 3                         |
| 517               | <i>Terra Nigra</i> (Gallo-Belgic ware)                     |
| 518               | Imitation <i>Terra Nigra</i> (unspecified fabric no.)      |
| 600               | Dressel 20 (Peacock & Williams 1986, Class 25)             |
| 605               | Rhodian Style Peacock Fabric 1                             |
| 607               | Carrot (Peacock & Williams 1986, Class 12)                 |
| 612               | Unspecified/unassigned                                     |
| 617               | Peacock & Williams 1986, Class 59                          |
| 618               | Peacock & Williams 1986, Class 66                          |
| 700               | Unspecified Continental Fabric                             |
| 702               | Unspecified Continental / British                          |
| 708               | Unspecified Gallia Belgica                                 |
| 727               | FC/B1 (?Rhine/land / ?SE England)                          |
| 759               | FB28 (Exeter, Mortarium fabric Group 4, probably military) |
| 1000              | Unspecified/unclassified fabric                            |

| <i>Type abb.</i> | <i>Type</i>        |
|------------------|--------------------|
| 999              | Unspecified form   |
| BKR              | Beaker             |
| BWL              | Bowl               |
| CAM              | <i>Camulodunum</i> |
| CP               | Cooking pot        |
| Cu.              | Curle              |
| CUP              | Cup                |
| Dr.              | Dragendorff        |
| DSH              | Dish               |
| FB               | Flanged bowl       |
| INK              | Inkwell/Pot        |
| JAR              | Jar                |
| LAMP             | Lamp               |
| LID              | Lid                |
| PLATE            | Plate              |
| PLT              | Platter            |
| PRD              | Plain rim dish     |
| RIM              | Rim                |
| Ritt.            | Ritterling         |

*Miscellaneous*

ERE Estimated Rim Equivalent as a percentage

Wt Weight in grams

For descriptions of fabric and types mentioned see Holbrook and Bidwell (1991 Exeter Archaeological Reports: 4).

\* = Fabric number used in EAR 4.

## FINDS INVENTORY AND DATING EVIDENCE

*Pottery*

160

|        |                |    |    |     |   |
|--------|----------------|----|----|-----|---|
| Fabric | 500            |    |    |     |   |
| Type   | Dr.37          | Wt | 30 | ERE | 6 |
|        | (c. 80-100 AD) |    |    |     |   |

465

|        |                    |    |   |     |   |
|--------|--------------------|----|---|-----|---|
| Fabric | 500                |    |   |     |   |
| Type   | Dr.18              | Wt | 1 | ERE | 5 |
|        | (Claudio-Neronian) |    |   |     |   |

|        |        |    |    |     |   |
|--------|--------|----|----|-----|---|
| Fabric | 503    |    |    |     |   |
| Fabric | 517    | Wt | 20 |     |   |
| Type   | CAM 16 |    |    | ERE | 8 |

466

|        |     |    |   |  |  |
|--------|-----|----|---|--|--|
| Fabric | 503 | Wt | 2 |  |  |
|--------|-----|----|---|--|--|

468

|        |                    |    |    |     |   |
|--------|--------------------|----|----|-----|---|
| Fabric | 500                |    |    |     |   |
| Type   | Dr.24/25           | Wt | 2  | ERE | 4 |
|        | (Claudian)         |    |    |     |   |
| Type   | Dr.24/25           | Wt | 3  |     |   |
|        | (Claudio-Neronian) |    |    |     |   |
| Type   | Dr.29              | Wt | 13 |     |   |
|        | (c. 55-70 AD)      |    |    |     |   |

473

|        |                                    |    |    |     |    |
|--------|------------------------------------|----|----|-----|----|
| Fabric | 503                                | Wt | 10 |     |    |
| Type   | 20.3                               |    |    | ERE | 16 |
| Type   | 999                                |    |    | ERE | 14 |
|        | (with lustrous copper colour-coat) |    |    |     |    |

477

|        |     |    |   |     |   |
|--------|-----|----|---|-----|---|
| Fabric | 372 | Wt | 5 |     |   |
| Type   | PLT |    |   | ERE | 6 |

478

|        |     |  |  |  |  |
|--------|-----|--|--|--|--|
| Fabric | 40  |  |  |  |  |
| Fabric | 190 |  |  |  |  |

485

|        |  |    |    |  |  |
|--------|--|----|----|--|--|
| Fabric | 31   | Wt | 5  |  |  |
| Fabric | 40   | Wt | 70 |  |  |
| Fabric | 125  | Wt | 45 |  |  |
| Fabric | 406  | Wt | 5  |  |  |
| Fabric | 435  | Wt | 30 |  |  |
| Fabric | 517  | Wt | 2  |  |  |
| Type   | CAM 16   |    |    |  |  |
| Fabric | 1000   | Wt | 5  |  |  |
|        | (wheel-thrown buff sandy fabric with black inclusions & matt black surfaces) |    |    |  |  |

489

|        |    |    |    |  |  |
|--------|----|----|----|--|--|
| Fabric | 40 | Wt | 15 |  |  |
|--------|----|----|----|--|--|



Type 93.1 ERE 4  
 Fabric 372 Wt 5  
 Fabric 1000 Wt 5  
 (off-white fabric with small ferrous & white inclusions & a light pink exterior)

## 492

Fabric 500  
 Type Dr.15/17 Wt ?  
 (c. 50-65 AD, Stamp No.32: Lucceius)  
 Fabric 503 Wt 5

## 714

Fabric 503 Wt 1  
 Fabric 702 Wt 85

## 816.1

Fabric 500  
 Type BWL Wt 7  
 (1C)

## 817

Fabric 40 Wt 60  
 Fabric 125 Wt 5  
 Fabric 190 Wt 65  
 Fabric 371 Wt 30  
 Fabric 405 Wt 2  
 Fabric 440 Wt 4  
 Type 1  
 Fabric 451 Wt 15  
 Fabric 500  
 Type Dr.18 Wt 5 ERE 9  
 (Flavian)  
 Type Dr.27 Wt 3  
 (Flavian)  
 Type Dr.29 Wt 200 ERE 34  
 (c. 70-85 AD, Dec Fig.1/3)  
 Type Dr.35/36 Wt 3  
 (Flavian)  
 Type Dr.37 Wt 8  
 (c. 75-90 AD, Dec Fig.1/4)  
 Fabric 503  
 Fabric 1000 Wt 70  
 Type JAR ERE 23  
 (Fig.12/5, sandy fabric with buff slip)  
 Fabric 1000 Wt 350  
 Type 999 ERE 17  
 (white fabric with grey inclusions & light-mid grey exterior)

## 822

Fabric 31 Wt 250  
 Type 3.2 ERE 6  
 Type 34 ERE 12  
 (Fig.12/14, same vessel as context 823)  
 Type 37.2 ERE 6

(NB: bowl base with intersecting arc, intrusive)

Fabric 40 Wt 520  
 Type 9.1 ERE 2  
 Type 16.1 ERE 25  
 Type 19 ERE 6  
 Type 19 ERE 19  
 Type 20 ERE 25  
 Type 20.1a ERE 7  
 Type CP ERE 13  
 Fabric ?125 Wt 25  
 (?intrusive)  
 Fabric 151 Wt 40  
 Fabric 191 Wt 50  
 Fabric 220 Wt 2

Fabric 406 Wt 2475  
 Type 1.1b ERE 20  
 Type 1.1b ERE 36  
 Type 1.1b ERE 100  
 Type 1.1b ERE 100  
 Type 999 ERE 100

(Fig.12/3, cf. type 4.1)  
 Fabric 435 Wt 250  
 Type 2.1 ERE 26  
 (Fig.12/2)  
 Type 999 ERE ?  
 (Fig.12/4, cf. fabric 401, type 1)

Fabric 440 Wt 30  
 Type 999 ERE 33  
 Type 999 ERE 100

Fabric 451 Wt 5  
 Fabric 500  
 Type Dr.15/17 Wt 100 ERE 14  
 (Neronian)

Type Dr.18 Wt 25 ERE 22  
 (Neronian-Vespasian)

Type Dr.27g Wt 10  
 (c. 45-65 AD, Stamp No.45: Paullus)

Type Dr.27 Wt 25 ERE 6  
 (Pre-Flavian)

Type Dr.29 Wt 11 ERE 7  
 (c. 55-70 AD, same vessel as context 928 & 957)

Type Dr.35/36 Wt 65  
 (Neronian-Vespasian)

Type Ritt.8 Wt 60  
 (Neronian)

Type Ritt.12 Wt 80  
 (Pre-Flavian)

Type Ritt.12 Wt 95 ERE 4  
 (Neronian)

Fabric 503 Wt 50  
 Type 4.2 ERE 5

Fabric 507 Wt ?  
 Type BKR

Fabric 516/1 Wt 1

Fabric 516/3 Wt 1

Fabric 517 Wt 190

Type CAM 16 ERE 42

Fabric ?518 Wt 50

Fabric 600 Wt 20

Fabric 607 Wt 5

Fabric 1000 Wt 50

(wheel-thrown sandy grey ware)

## 822.1

Fabric 500  
 Type Dr.24 Wt 20 ERE 27  
 (c. 50-65 AD, Stamp No.55: Tertius)

## 822.2

Fabric 373 Wt 10  
 Type JAR ERE 4  
 (Fig.12/7)

Fabric 500  
 Type Dr.24 Wt 60 ERE 71  
 (c. 50-65 AD, Stamp No.22: Evanus)

Type Dr.29 Wt 90 ERE 18  
 (c. 50-65 AD, Dec Fig.1/6)

Type Dr.30 Wt ? ERE ?  
 (c. 70-85 AD, Dec Fig.1/5)

Type CUP Wt ? ERE ?  
 (Claudian, Stamp No.51: Sen- )

(NB: 4C Plain Rim Dish intrusive)

823 (NB: 4C Plain Rim Dish intrusive)

Fabric 31 Wt 600  
 Type 12.2 ERE 17

Type 34 ERE 16  
 (Fig.12/14, same vessel as context 822)







## 957

|        |  |    |     |     |    |
|--------|--|----|-----|-----|----|
| Fabric | 31   | Wt | 5   |     |    |
| Type   | DSH<br>(NB: intrusive)   |    |     | ERE | 14 |
| Fabric | 40   | Wt | 225 |     |    |
| Type   | 20   |    |     | ERE | 16 |
| Type   | CP   |    |     | ERE | 2  |
| Fabric | 190  | Wt | 5   |     |    |
| Fabric | 191  | Wt | ?   |     |    |
| Type   | CP   |    |     | ERE | 6  |
| Type   | CP<br>(Fig.12/9)   |    |     | ERE | 17 |
| Fabric | 371  | Wt | 2   |     |    |
| Fabric | 406  | Wt | 100 |     |    |
| Fabric | 500  |    |     |     |    |
| Type   | Dr.15/17<br>(Neronian-Vespasian)   | Wt | 30  | ERE | 17 |
| Type   | Dr.15/17<br>(Pre-Flavian)  | Wt | 3   |     |    |
| Type   | Dr.18<br>(Neronian)  | Wt | 10  | ERE | 3  |
| Type   | Dr.27g<br>(c. 50-65 AD, Stamp No.39: Modestus)                                       | Wt | 85  | ERE | 3  |
| Type   | Dr.29<br>(c. 55-70 AD, same vessel as context 822 & 928)                             | Wt | 7   |     |    |
| Fabric | 503  | Wt | 60  |     |    |
| Fabric | 1000   | Wt | 10  |     |    |
| Type   | ?JAR<br>(wheel-thrown buff sandy fabric with black inclusions & matt black surfaces) |    |     | ERE | 12 |

## 963

|        |                      |  |  |  |  |
|--------|----------------------|--|--|--|--|
| Fabric | 190                  |  |  |  |  |
| Fabric | 406                  |  |  |  |  |
|        | (base with graffito) |  |  |  |  |
| Fabric | 435                  |  |  |  |  |
| Type   | 1                    |  |  |  |  |

## 965

|        |                                  |    |   |     |   |
|--------|----------------------------------|----|---|-----|---|
| Fabric | 500                              |    |   |     |   |
| Type   | Dr.15/17<br>(Neronian-Vespasian) | Wt | ? | ERE | ? |

## 971

|        |  |    |   |     |   |
|--------|--|----|---|-----|---|
| Fabric | 500  |    |   |     |   |
| Type   | Dr.27g<br>(Neronian or early Flavian, Stamp No.62: unidentified) | Wt | ? | ERE | ? |

## 973

|        |                                |    |   |  |  |
|--------|--------------------------------|----|---|--|--|
| Fabric | 500                            |    |   |  |  |
| Type   | Dr.24/25<br>(Claudio-Neronian) | Wt | 7 |  |  |

## 980

|        |     |    |   |  |  |
|--------|-----|----|---|--|--|
| Fabric | 503 | Wt | 1 |  |  |
|--------|-----|----|---|--|--|

## 992

|        |     |    |    |  |  |
|--------|-----|----|----|--|--|
| Fabric | 406 | Wt | 85 |  |  |
|--------|-----|----|----|--|--|

## 994

|        |     |  |  |  |  |
|--------|-----|--|--|--|--|
| Fabric | 190 |  |  |  |  |
| Fabric | 191 |  |  |  |  |
| Fabric | 406 |  |  |  |  |

## 996

|        |     |    |     |  |  |
|--------|-----|----|-----|--|--|
| Fabric | 40  | Wt | 200 |  |  |
| Fabric | 406 | Wt | 20  |  |  |
| Fabric | 435 | Wt | 75  |  |  |

## 999.2

|        |                           |    |    |     |    |
|--------|---------------------------|----|----|-----|----|
| Fabric | 40                        | Wt | 75 |     |    |
| Type   | 2.1                       |    |    | ERE | 29 |
| Type   | 3.1                       |    |    | ERE | 9  |
| Type   | 20                        |    |    | ERE | 5  |
| Type   | 99.1                      |    |    | ERE | 4  |
| Fabric | 151                       | Wt | 25 |     |    |
| Fabric | 500                       |    |    |     |    |
| Type   | Dr.24/25<br>(Pre-Flavian) | Wt | 1  | ERE | 4  |
| Type   | Dr.27<br>(?Pre-Flavian)   | Wt | 5  |     |    |
| Type   | Dr.29<br>(Pre-Flavian)    | Wt | 3  |     |    |
| Fabric | ?501                      |    |    |     |    |
| Type   | Dr.27<br>(?2C)            | Wt | 1  |     |    |

## 1001

|        |     |  |  |  |  |
|--------|-----|--|--|--|--|
| Fabric | 40  |  |  |  |  |
| Fabric | 375 |  |  |  |  |
| Fabric | 406 |  |  |  |  |
| Fabric | 435 |  |  |  |  |

## 1003

|        |     |    |       |  |  |
|--------|-----|----|-------|--|--|
| Fabric | 600 | Wt | 12425 |  |  |
|--------|-----|----|-------|--|--|

## 1005

|        |                  |    |   |  |  |
|--------|------------------|----|---|--|--|
| Fabric | 500              |    |   |  |  |
| Type   | Dr.18<br>(1C)    | Wt | ? |  |  |
| Type   | INK<br>(1C)      | Wt | ? |  |  |
| Fabric | 605<br>(Fig.8/4) | Wt | ? |  |  |

## 1014

|        |                       |    |    |     |    |
|--------|-----------------------|----|----|-----|----|
| Fabric | 500                   |    |    |     |    |
| Type   | Ritt.8<br>(?Neronian) | Wt | 14 | ERE | 14 |

## 1015

|        |     |  |  |  |  |
|--------|-----|--|--|--|--|
| Fabric | 503 |  |  |  |  |
|--------|-----|--|--|--|--|

## 1016

|        |   |    |    |     |    |
|--------|---|----|----|-----|----|
| Fabric | 500                                       |    |    |     |    |
| Type   | Dr.18<br>(Neronian-Vespasian)             | Wt | 10 | ERE | 1  |
| Type   | Dr.29<br>(Neronian-Vespasian)             | Wt | 10 | ERE | 4  |
| Fabric | 517                                       | Wt | 45 |     |    |
| Type   | CAM ?2                                    |    |    |     |    |
| Type   | CAM 16                                    |    |    | ERE | 14 |
| Fabric | 600                                       | Wt | ?  |     |    |
|        | (Mid 1C-Mid 2C, Fig.8/1, cf. Augst No.17) |    |    |     |    |

## 1017

|        |                            |    |    |     |    |
|--------|----------------------------|----|----|-----|----|
| Fabric | 500                        |    |    |     |    |
| Type   | Dr.15/17<br>(?Pre-Flavian) | Wt | 25 | ERE | 16 |

## 1020

|        |                          |    |    |  |  |
|--------|--------------------------|----|----|--|--|
| Fabric | 500                      |    |    |  |  |
| Type   | Dr.27<br>(?Pre-Flavian)  | Wt | 5  |  |  |
| Type   | Ritt.2<br>(?Pre-Flavian) | Wt | 30 |  |  |

## 1030

|        |                      |    |    |     |    |
|--------|----------------------|----|----|-----|----|
| Fabric | 500                  |    |    |     |    |
| Type   | Dr.18                | Wt | 30 |     |    |
|        | (Neronian-Vespasian) |    |    |     |    |
| Fabric | 517                  | Wt | 25 |     |    |
| Type   | CAM 16               |    |    | ERE | 10 |
| Fabric | 617                  | Wt | ?  |     |    |
|        | (Fig.8/5)            |    |    |     |    |

## 1031

|        |            |    |    |     |   |
|--------|------------|----|----|-----|---|
| Fabric | 500        |    |    |     |   |
| Type   | Dr.18      | Wt | 17 | ERE | 6 |
|        | (?Flavian) |    |    |     |   |
| Type   | Dr.27      | Wt | 7  |     |   |
|        | (?Flavian) |    |    |     |   |
| Fabric | 517        | Wt | 50 |     |   |
| Type   | CAM 16     |    |    | ERE | 4 |

## 1033

|        |  |    |    |  |  |
|--------|--|----|----|--|--|
| Fabric | 500  |    |    |  |  |
| Type   | Dr.18  | Wt | 50 |  |  |
|        | (Flavian)  |    |    |  |  |
| Type   | Dr.29  | Wt | 2  |  |  |
|        | (Neronian-Vespasian)   |    |    |  |  |
| Fabric | 503  | Wt | 3  |  |  |
| Fabric | 1000   | Wt | 1  |  |  |
|        | (wheel-thrown buff sandy fabric with black inclusions & Matt black surfaces) |    |    |  |  |
| Fabric | 1000   | Wt | 10 |  |  |
|        | (sandy white fabric with white interior & matt mid grey exterior)            |    |    |  |  |

## 1035

|        |   |    |    |     |   |
|--------|---|----|----|-----|---|
| Fabric | 1000  | Wt | 30 |     |   |
| Type   | 999   |    |    | ERE | 5 |
|        | (sandy white fabric with white interior & matt mid grey exterior) |    |    |     |   |

## 1035.2

|        |           |    |   |     |   |
|--------|-----------|----|---|-----|---|
| Fabric | 500       |    |   |     |   |
| Type   | Dr.35/36  | Wt | ? | ERE | ? |
|        | (Flavian) |    |   |     |   |

## 1040

|        |        |    |     |     |    |
|--------|--------|----|-----|-----|----|
| Fabric | 40     | Wt | 125 |     |    |
| Type   | 20.1a  |    |     | ERE | 20 |
| Fabric | 517    | Wt | 20  |     |    |
| Type   | CAM 16 |    |     | ERE | 8  |

## 1045

|        |     |    |    |     |    |
|--------|-----|----|----|-----|----|
| Fabric | 372 | Wt | 27 |     |    |
| Type   | JAR |    |    | ERE | 25 |

## 1046

|        |   |    |     |     |    |
|--------|---|----|-----|-----|----|
| Fabric | 31  | Wt | 75  |     |    |
| Type   | 3.2   |    |     | ERE | 20 |
| Fabric | 517   | Wt | 150 |     |    |
| Type   | CAM 16  |    |     | ERE | 16 |
| Fabric | 1000  | Wt | 25  |     |    |
| Type   | 999   |    |     | ERE | 19 |
|        | (sandy white fabric with white interior & matt mid grey exterior) |    |     |     |    |

## 1047

|        |        |    |    |     |   |
|--------|--------|----|----|-----|---|
| Fabric | 517    | Wt | 25 |     |   |
| Type   | CAM 16 |    |    | ERE | 9 |

## 1051

|        |     |    |     |  |  |
|--------|-----|----|-----|--|--|
| Fabric | 600 | Wt | 250 |  |  |
|--------|-----|----|-----|--|--|

## 1053

|        |                                   |    |     |     |    |
|--------|-----------------------------------|----|-----|-----|----|
| Fabric | 500                               |    |     |     |    |
| Type   | Dr.18                             | Wt | 50  | ERE | 25 |
|        | (?Flavian)                        |    |     |     |    |
| Fabric | 600                               | Wt | 275 |     |    |
| Fabric | 1000                              | Wt | 5   |     |    |
|        | (pink fabric with worn buff slip) |    |     |     |    |

## 1054

|        |  |    |    |     |    |
|--------|--|----|----|-----|----|
| Fabric | 40   | Wt | 5  |     |    |
| Type   | CP   |    |    | ERE | 5  |
| Fabric | 125  | Wt | 5  |     |    |
| Fabric | 151  | Wt | 10 |     |    |
| Fabric | 220  | Wt | 5  |     |    |
| Fabric | 406  | Wt | 15 |     |    |
| Fabric | 435  | Wt | 5  |     |    |
| Fabric | 500  |    |    |     |    |
| Type   | Dr.18  | Wt | 65 | ERE | 22 |
|        | (Pre-Flavian)  |    |    |     |    |
| Type   | Dr.27  | Wt | 1  |     |    |
|        | (?Pre-Flavian)   |    |    |     |    |
| Fabric | 503  | Wt | 2  |     |    |
| Fabric | 1000   | Wt | 5  |     |    |
|        | (wheel-thrown white fabric with matt mid grey exterior & white interior) |    |    |     |    |

## 1055

|        |                              |    |    |     |    |
|--------|------------------------------|----|----|-----|----|
| Fabric | 31                           | Wt | 50 |     |    |
| Fabric | 40                           | Wt | 90 |     |    |
| Type   | 8.1                          |    |    | ERE | 13 |
| Type   | 8.2                          |    |    | ERE | 5  |
|        | (fabric & exterior mid grey) |    |    |     |    |
| Fabric | 125                          | Wt | 5  |     |    |
| Fabric | 192                          | Wt | 20 |     |    |
| Fabric | 435                          | Wt | 25 |     |    |
| Fabric | 500                          |    |    |     |    |
| Type   | Dr.18                        | Wt | 4  |     |    |
|        | (Neronian-Vespasian)         |    |    |     |    |
| Fabric | 517                          | Wt | 55 |     |    |
| Type   | CAM 16                       |    |    | ERE | 19 |

## 1056

|        |     |    |    |  |  |
|--------|-----|----|----|--|--|
| Fabric | 600 | Wt | 50 |  |  |
|--------|-----|----|----|--|--|

## 1061

|        |  |    |     |     |    |
|--------|--|----|-----|-----|----|
| Fabric | 40   | Wt | 225 |     |    |
| Fabric | 191  | Wt | 50  |     |    |
| Fabric | 435  | Wt | 15  |     |    |
| Fabric | 500  |    |     |     |    |
| Type   | Dr.24/25   | Wt | 17  |     |    |
|        | (Claudian)   |    |     |     |    |
| Type   | Dr.29  | Wt | 1   |     |    |
|        | (c. 55-65 AD, Stamp No.34: Marinus, same vessel as context 1092) |    |     |     |    |
| Fabric | 503  | Wt | 2   |     |    |
| Type   | 20.5   |    |     | ERE | 15 |

## 1068

|        |  |    |     |     |    |
|--------|--|----|-----|-----|----|
| Fabric | 500  |    |     |     |    |
| Type   | Dr.18  | Wt | 9   | ERE | 11 |
|        | (c. 50-65 AD)  |    |     |     |    |
| Type   | Dr.29  | Wt | 375 | ERE | 50 |
|        | (c. 55-65 AD, Dec Fig.1/1, Stamp No.34: Marinus, same vessel as context 1061 & 1092) |    |     |     |    |

## 1071

|        |     |    |     |  |  |
|--------|-----|----|-----|--|--|
| Fabric | 600 | Wt | 275 |  |  |
|--------|-----|----|-----|--|--|

## 1077

|        |      |    |    |  |  |
|--------|------|----|----|--|--|
| Fabric | 1000 | Wt | 30 |  |  |
|--------|------|----|----|--|--|

|               |  |    |      |     |    |  |
|---------------|--|----|------|-----|----|--|
| Type          | 999  |    |      | ERE | 12 |  |
|               | (wheel-thrown buff sandy fabric with black inclusions & matt black surfaces) |    |      |     |    |  |
| <b>1092</b>   |  |    |      |     |    |  |
| Fabric        | 40   | Wt | 1200 |     |    |  |
| Type          | 20.1a  |    |      | ERE | 16 |  |
| Type          | 20.1c  |    |      | ERE | 85 |  |
|               | (NB: base with man made hole)  |    |      |     |    |  |
| Fabric        | 406  | Wt | 2    |     |    |  |
| Fabric        | 500  |    |      |     |    |  |
| Type          | Dr.29  | Wt | 0    |     |    |  |
|               | (c. 55-65 AD, same vessel as context 1061 & 1068)                            |    |      |     |    |  |
| Fabric        | 517  | Wt | 5    |     |    |  |
| Type          | CAM 16   |    |      |     |    |  |
| Fabric        | 600  | Wt | 525  |     |    |  |
| Fabric        | 600  | Wt | ?    |     |    |  |
|               | (Third Quarter 1C, Fig.8/2, cf. Augst No.14)                                 |    |      |     |    |  |
| <b>1094</b>   |  |    |      |     |    |  |
| Fabric        | 40   | Wt | 5    |     |    |  |
| Fabric        | 406  | Wt | 310  |     |    |  |
| Fabric        | 500  |    |      |     |    |  |
| Type          | Dr.24/25   | Wt | 5    | ERE | 15 |  |
|               | (Neronian)   |    |      |     |    |  |
| Fabric        | 503  | Wt | 2    |     |    |  |
| Type          | 1.5  |    |      | ERE | 7  |  |
| Type          | 999  |    |      |     |    |  |
| Fabric        | 700  | Wt | 10   |     |    |  |
|               | (c. 50-85 AD)  |    |      |     |    |  |
| <b>1095</b>   |  |    |      |     |    |  |
| Fabric        | 503  |    |      |     |    |  |
| <b>1123</b>   |  |    |      |     |    |  |
| Fabric        | 517  | Wt | ?    |     |    |  |
| Type          | CAM 16   |    |      | ERE | ?  |  |
|               | (c. 50-85 AD, Fig.7/1, Gallo-Belgic Stamp: AH..CCV)                          |    |      |     |    |  |
| <b>1350</b>   |  |    |      |     |    |  |
| Fabric        | 40   | Wt | ?    |     |    |  |
| Type          | CP   |    |      | ERE | 4  |  |
| Fabric        | 151  | Wt | 20   |     |    |  |
| Fabric        | 192  | Wt | 90   |     |    |  |
| Type          | 999  |    |      | ERE | 46 |  |
|               | (Fig.13/26, cf. type 7.3 but with rouletting on flange)                      |    |      |     |    |  |
| <b>1350.2</b> |  |    |      |     |    |  |
| Fabric        | 40   | Wt | 45   |     |    |  |
| Type          | 93.1   |    |      | ERE | 7  |  |
| Fabric        | 151  | Wt | 20   |     |    |  |
| Type          | 57.2   |    |      | ERE | 6  |  |
| Fabric        | 192  | Wt | 15   |     |    |  |
| Type          | 4.1  |    |      | ERE | 4  |  |
| Fabric        | 503  | Wt | 1    |     |    |  |
| <b>1441</b>   |  |    |      |     |    |  |
| Fabric        | 40   | Wt | 5    |     |    |  |
| Fabric        | 125  | Wt | 30   |     |    |  |
| Fabric        | 151  | Wt | 25   |     |    |  |
| Fabric        | 190  | Wt | 50   |     |    |  |
| Type          | 32.1   |    |      |     |    |  |
| Fabric        | 1000   | Wt | 20   |     |    |  |
|               | (wheel-thrown buff sandy fabric with black inclusions & matt black surfaces) |    |      |     |    |  |
| <b>1482</b>   |  |    |      |     |    |  |
| Fabric        | 503  |    |      |     |    |  |

|             |                                       |    |    |     |    |  |
|-------------|---------------------------------------|----|----|-----|----|--|
| Fabric      | 618                                   | Wt | ?  |     |    |  |
| <b>1487</b> |                                       |    |    |     |    |  |
| Fabric      | 406                                   |    |    |     |    |  |
| Fabric      | 756                                   | Wt | 70 |     |    |  |
| <b>1536</b> |                                       |    |    |     |    |  |
| Fabric      | 190                                   |    |    |     |    |  |
| Type        | 999                                   |    |    | ERE | 14 |  |
|             | (Fig.12/17, cf. fabric 371 type 16.1) |    |    |     |    |  |
| Fabric      | 406                                   |    |    |     |    |  |
| <b>1568</b> |                                       |    |    |     |    |  |
| Fabric      | 500                                   |    |    |     |    |  |
| Type        | Dr.29                                 | Wt | 10 | ERE | 3  |  |
|             | (Flavian)                             |    |    |     |    |  |
| <b>1572</b> |                                       |    |    |     |    |  |
| Fabric      | 406                                   |    |    |     |    |  |

#### Coins

##### Context Identification

|        |  |
|--------|--|
| 468    | D Claudian copy Grade II as RIC 66 50sAD   |
| 472    | D Claudian copy Grade II as RIC 68 50sAD   |
| 823    | D Claudian copy uncertain 50sAD  |
| 714    | D Claudian copy Grade II as RIC 66 50sAD   |
| 877    | D Nero <i>As</i> Temple of Janus type mid 60sAD  |
| 913    | ? Claudian copy very corroded 50sAD  |
| 957    | D Claudian copy Grade I as RIC 67 50sAD  |
| 970    | A Domitian <i>As</i> as RIC 332 86AD (probable contamination from ditch alongside 970) |
| 994.2  | D Claudian copy Grade I as RIC 68 50sAD  |
| 1054   | D Claudian copy Grade I as RIC 69 50sAD  |
| 1517.1 | C Claudian copy Grade III as RIC 67 50sAD  |

#### Other finds

Fragments of a wooden bowl in thirteen pieces, of which two fit together and form about half of the base, were discovered in the primary clay silting (layer 900) of ditch 620. This ditch was the inner and suspected first defensive ditch of the fortress. A third large fragment also has part of the base and sides but does not fit with the first two. One rim fragment survives. It was not possible to be certain of the height of the vessel.

The bowl was roughly carved and is of irregular thickness, varying from c.15mm on one side to c8mm at the base. The opposing sides which have survived are not of equal thickness. The base, which has a diameter of c.140mm, has a pronounced change of angle where it meets the sides although in the interior the profile is more curved. Although no clear tool-marks can be seen it appears that the bowl was not turned; slight cut marks can be seen in the interior at the junction between the sides and the base. The majority of Roman wooden bowls tend to be more finely made and were turned. Species: *Alnus glutinosa* (Earwood 1992).

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- Sutherland C.H.V. 1935 *Romano-British imitations of bronze coins of Claudius I*.



## PHOTOGRAPHIC INDEX

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| 493            | 790/16-18      | 75/16        |
| 620            | 775/1-12       | 75/2-6       |
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|                | 788/19-23      |              |
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| 843            | 790/19-22      | 75/2-6       |
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| 866            | 775/1-12       |              |
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|                | 798/11         |              |

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- Plate 1 Section through the first fortress ditch, looking south-east.
- Plate 2 The four post-pits of the interval tower, looking north-east.
- Plate 3 The interval tower with the rampart partially excavated, looking north.
- Plate 4 Traces of the log corduroy at the base of the rampart, looking north-east.
- Plate 5 Section through the second fortress ditch, looking south.
- Plate 6 Cobble-base oven in the *intervallum* (Building 4), looking north-west.
- Plate 7 Tile-base oven in the *intervallum* (Building 4), looking south-east.
- Plate 8 Clay base of an oven in the *intervallum*, looking north-west.
- Plate 9 Complex stratigraphy behind the rampart, looking south-east.
- Plate 10 The *via sagularis*, looking south-east.

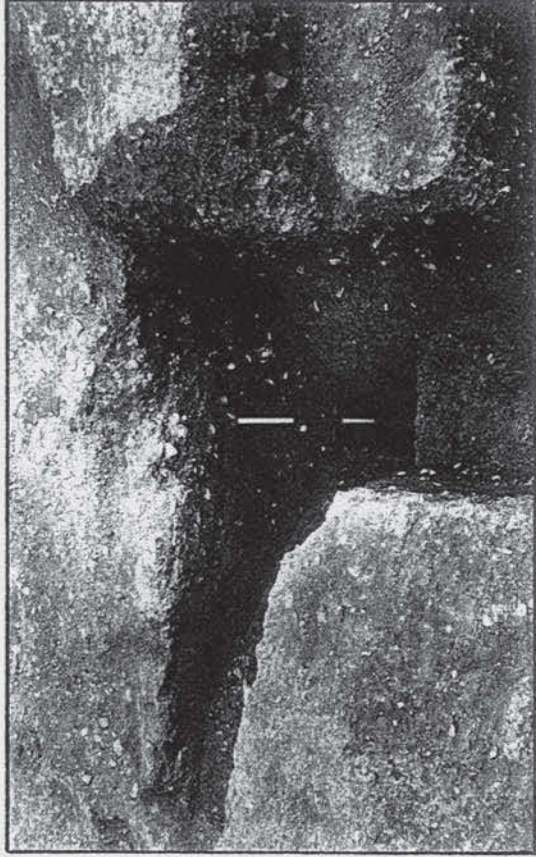


Plate 1 Section through the first fortress ditch, looking south-east. 2m scale.

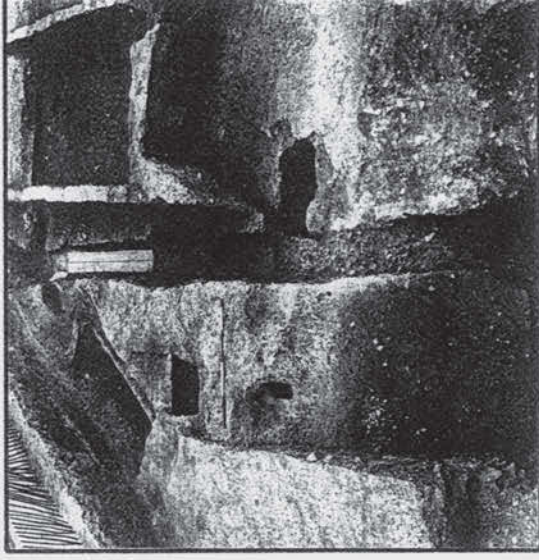


Plate 2 The four post-pits of the interval tower, looking north-east. 2m scale.



Plate 3 The interval tower with the rampart partially excavated, looking north. 1m scale.

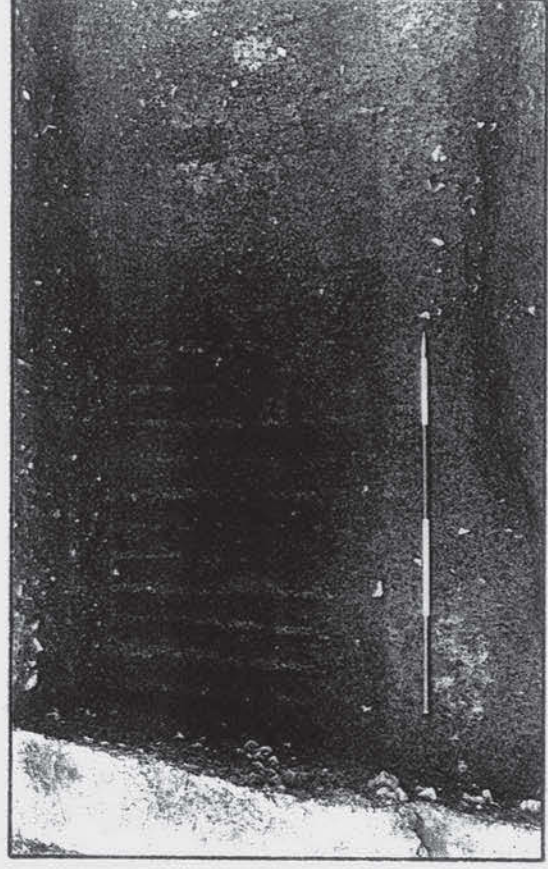


Plate 4 Traces of the log corduroy at the base of the rampart, looking north-east. 2m scale.





Plate 5 Section through the second fortress ditch, looking south. 2m scale.



Plate 6 Cobble-base oven in the *intervallum*, looking north-west. 1m scale.



Plate 7 Tile-base oven in the *intervallum*, looking south-east. 1m scale.



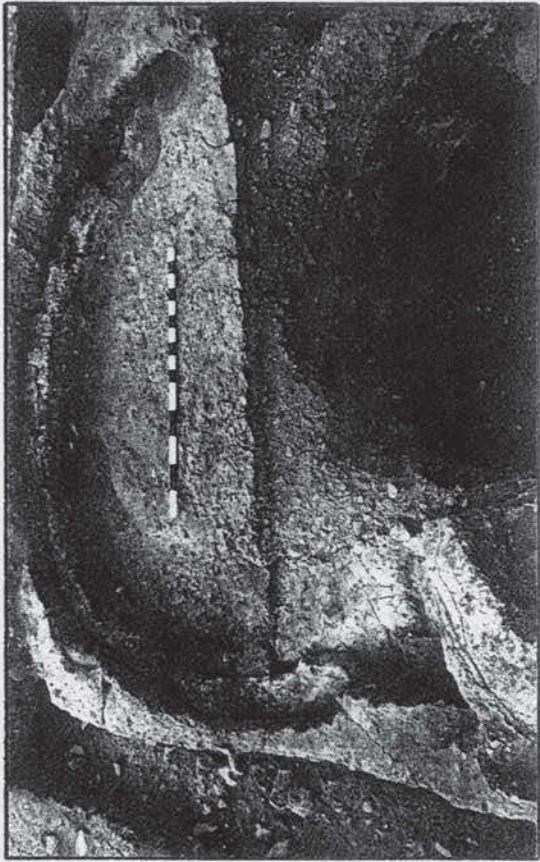


Plate 8 Clay base of an oven in the *intervallum*, looking north-west.  
1m scale.

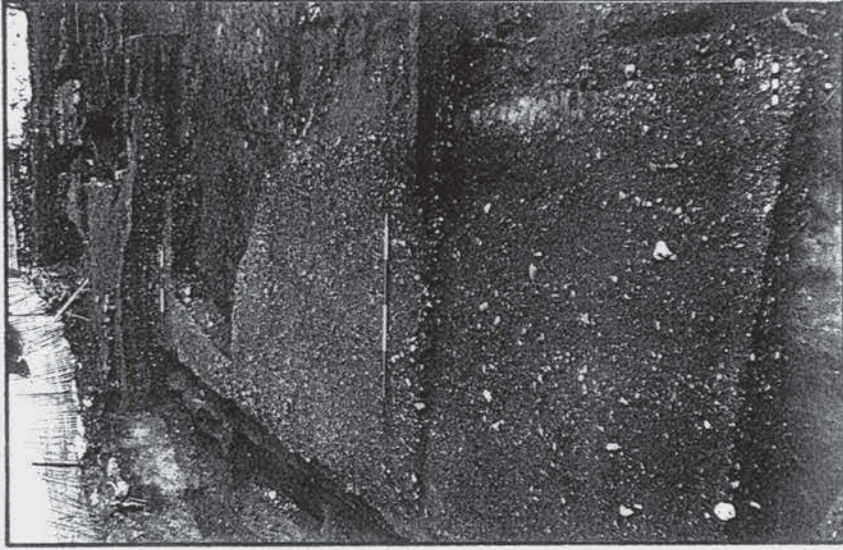


Plate 10 The *via sagularis*, looking south-east. 2m scale.

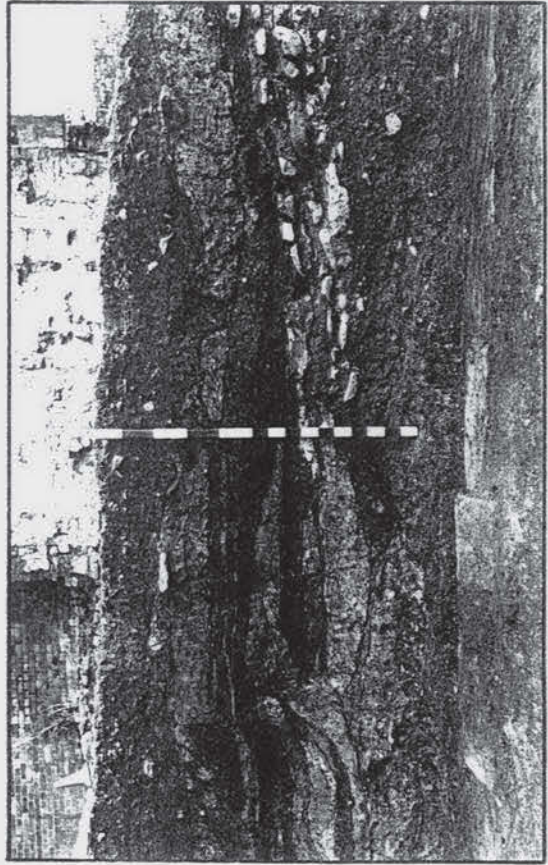


Plate 9 Complex stratigraphy behind the rampart, looking south-east.  
1m scale.

## APPENDIX 1

## OBSERVATIONS AT THE SNAYLE TOWER 1980

During 1980 a 19th century brick abutment of the City Wall at the location of the former Snayle Tower was demolished in advance of the construction of two new and substantial brick buttresses (Blaylock 1991,27). This location (SX 9155/9243) was some 110m south-west of the south-western corner of the Roman military fortress. A linear feature (F1) cutting natural was observed and partially excavated. This feature proved to be a V-shaped ditch of Roman military appearance. The ditch was also exposed in section (Fig. App. 1.2). It was clear from the observations which were made during the building work that the ditch was curving at this point in a way which would mirror, approximately, the curve of the fortress defences. For this reason, and given the military nature of the ditch profile, it was thought possible that this ditch may have been part of the circuit of an annexe to the fortress on its south-western side further evidence of which came to light in the Friernhay Street site (Fig. App. 1.1).

The ditch as seen in section was 1.4m deep although it originally may have been up to 1.6m deep (Fig. App. 1.2). This depth compares reasonably well with the depth of 1.84m recorded for the V-shaped ditch discovered just outside, and apparently respecting, the second fortress ditch at Friernhay Street. The ditch at the Snayle Tower was overlain by material dating to the Medieval and post-Medieval periods.

The observations were recorded by P.J. Weddell who also drew the section. The plans for this appendix were drawn by T. Ives and were photographed for reduction by G. Young.

**Bibliography**

- Blaylock S.R. 1991 *Exeter City Defences: A Fabric Survey Of The City Wall*, EMAFU Report 91.56.  
Grew F.O. 1981 'Roman Britain in 1980: Sites explored', *Britannia* 12, 358.

**Photographic index**

A slide showing the partially excavated ditch is lodged with the City Wall slide archive under Bartholomew Street (Snayle Tower).

Photographs of the exterior of the wall taken during the building operations are found in the B/W register under EMAFU/1211/1-3.

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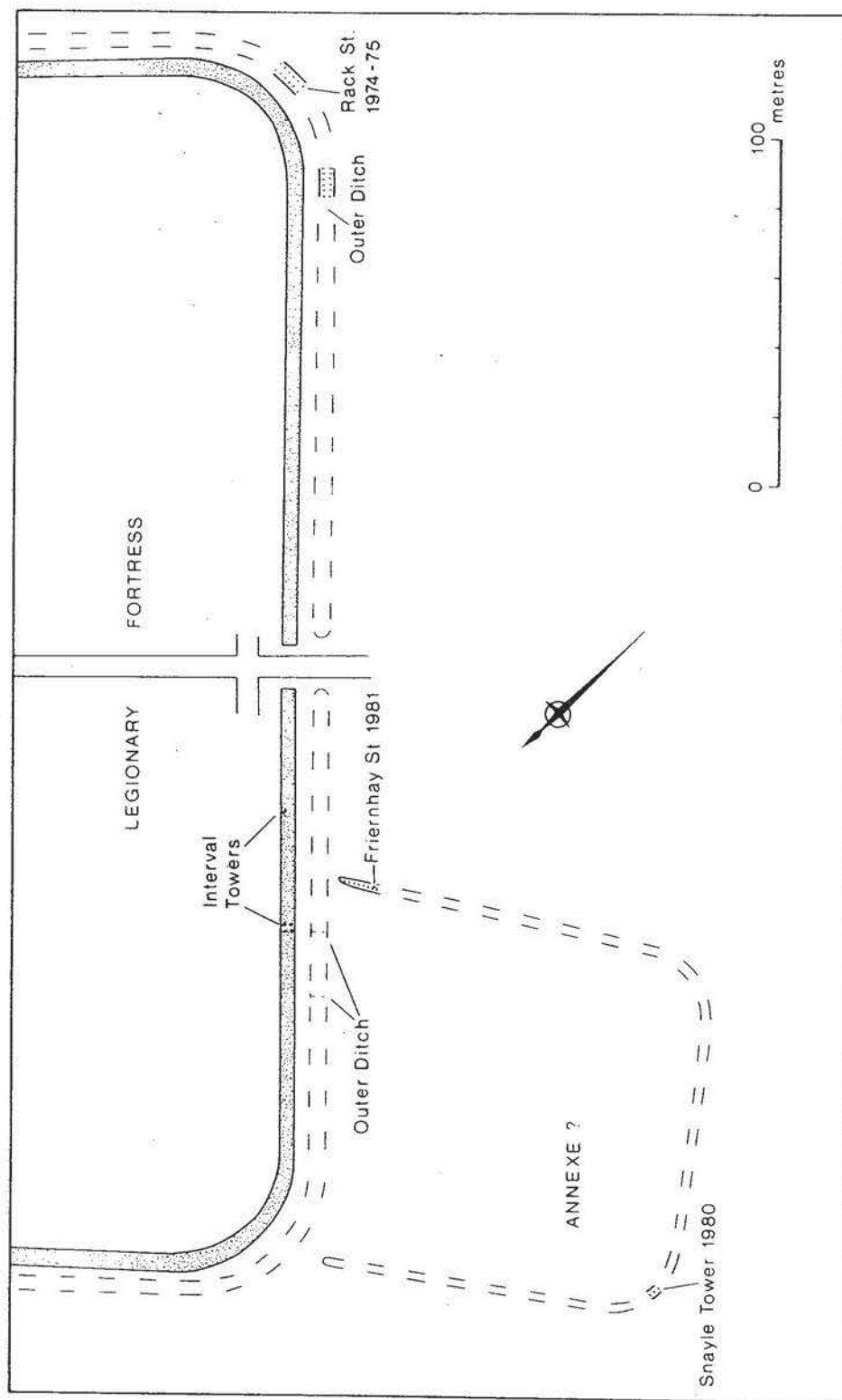


Fig. App. 1.1 The location of the Snayle Tower observation in relation to the ditch terminal recorded at Friernhay Street. Scale 1:2000.



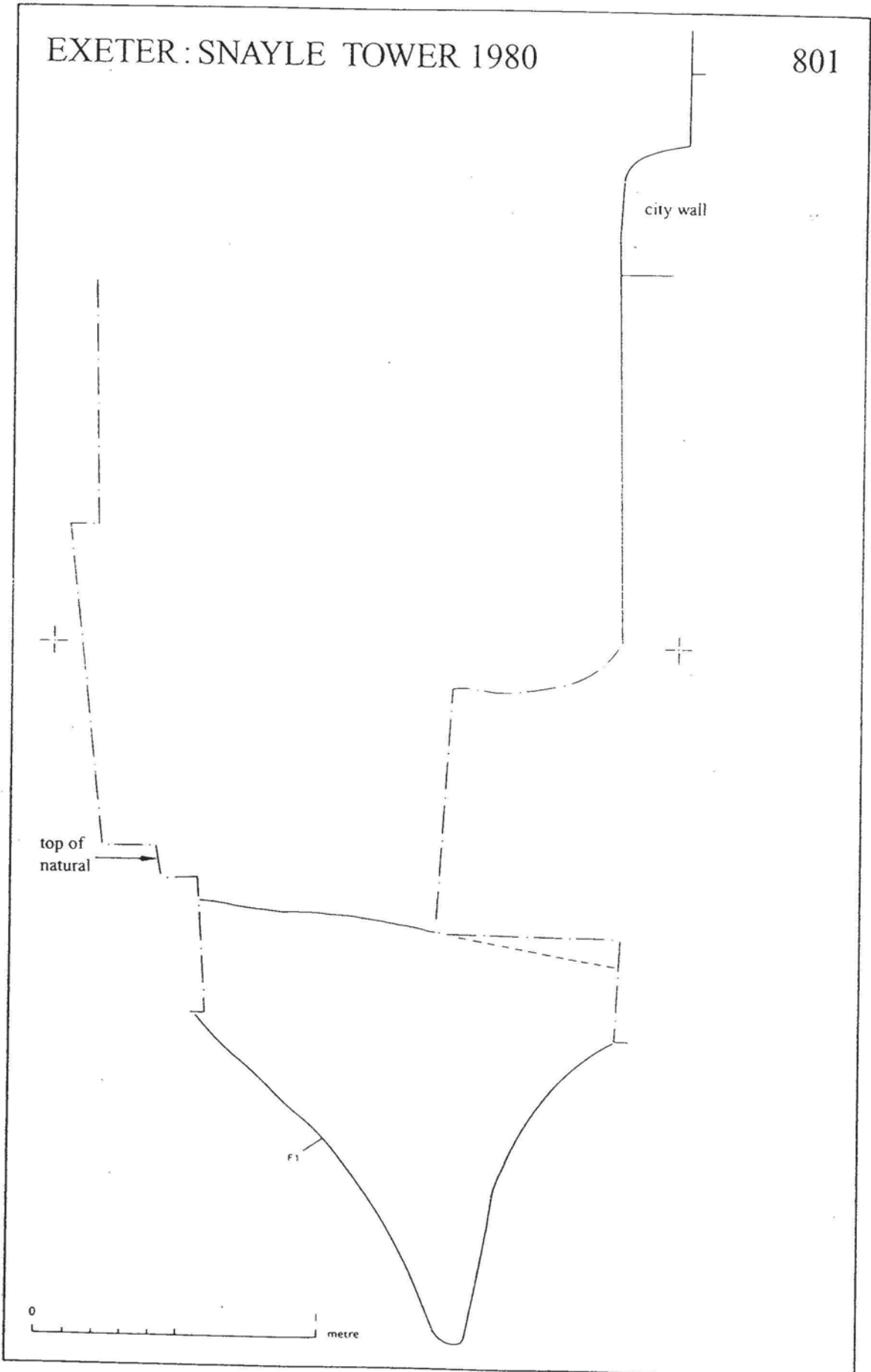


Fig. App. 1.2 Profile of the suspected Roman military ditch at the Snayle Tower. Scale 1:20.

## APPENDIX 2: METALLURGICAL REPORTS

## EVIDENCE FOR NON-FERROUS METALWORKING FROM FRIERNHAY, EXETER, DEVON (EXTRACTED FROM BAYLEY 1989)

Finds included a small number of crucibles used for a variety of processes including melting copper alloys, cupelling (refining) silver and, probably, parting (separating) gold and silver. All the crucibles were analysed qualitatively by energy-dispersive X-ray fluorescence (XRF) to determine the nature of the alloys being worked. Some of these finds came from military dumps against the back of the rampart and others from roadside ditches of late first or early second century; they are all listed and described in detail in the catalogue, below.

Two sherds (822 and 778) were from crucibles used to melt copper alloys, a further two (883 and 1535) were from shallow hemispherical crucibles which had most probably been used to refine silver on a small scale by cupellation. These finds all came from the military dumps. Evidence of cupellation has more commonly been identified on small shallow dish or disc-shaped vessels which are usually described as 'heating trays' (Bayley 1988).

The remaining seven sherds all came from 805 (Δ150 and Δ300), a roadside ditch dating to the late first century. They are from thick-walled, possibly hemispherical vessels that are oxidised fired and have either a pale olive-green or deep bottle-green vitrified outer surface. Their inner surface looks very clean and only slightly discoloured with a sandy deposit noted on one shard. There is good evidence that the vessels had lids made of a similar clay attached to them. XRF analysis detected high levels of silver together with minor amounts of copper on the inner surfaces of all the pieces and traces of gold in three cases. Lead was not detectable. The outer surfaces had lower levels of silver but more copper, most notably in the bottle-green glazes where it is probably responsible for the colour.

It is apparent from the analytical results that these vessels were used for an operation involving precious metals though the common processes of melting and cupellation can be ruled out, the first because it requires reducing conditions and the second because it involves lead in quantity. It is suggested that these vessels were used in parting (separating) silver from gold. This involved heating thin sheets of the mixed metal packed into sealed vessels and interleaved with a mixture containing salt and brick dust. Theophilus described this process in some detail (Hawthorne and Smith 1963, Bk III Ch 70).

Work is in progress on three other groups of finds provisionally identified as parting vessels and publication of them together with a full discussion of the process is planned. Until they were recognised there had been no archaeological evidence for parting in Britain or, to the best of my knowledge, in northern Europe.

## Catalogue of Friernhay Street finds (non-ferrous metalworking)

\* denotes Roman civil context

778 Body shard from a mineral-tempered though not very refractory crucible. Droplets of leaded

gunmetal are trapped in the vitrified (inner) surface.

\*805 Δ150: 1. Rim shard with external diameter of 12-15cm and 15mm walls. The outside is lightly vitrified with patches coloured bottle-green. The vitrification is broken away for c. 10mm below the rim.

2. Rim shard with external diameter of c. 16cm and walls of 12-16mm. The exterior is covered with an even deep bottle-green 'glaze' which peters out 10-15mm below the rim.

3. Shard from the edge of the 'lid' applied to a vessel such as that represented by sherds 1 or 2. The outer surface is vitrified and is an even bottle-green colour.

Δ300: 4. Rim shard 10-16mm thick with an external diameter of c. 15cm and a vitrified outer surface with an orange-peel texture and a patchy bottle-green colour. The vitrification is much reduced in the 15-20mm nearest the rim. On the inside is a patch of a pinky-brown sandy deposit, firmly bonded to the surface.

5. Body? shard 13-17mm thick with an evenly vitrified outer surface coloured pale olive with two more bottle-green coloured patches.

6. Body shard 19mm thick with an even bottle-green vitrified outer surface to which is stuck a tile fragment.

7. Shard from the edge of an applied lid, similar to 3.

822 Δ301. Crucible rim shard of heavily-tempered refractory fabric. Rim diameter c. 6m. ?hemispherical form, used to melt a copper alloy, probably brass.

\*837 Tap slag with adhering copper corrosion products.

883 Δ299. Rim shard from shallow crucible with pinched-out lip, similar to that from 1535 but larger. The vitrified area is inside and towards the bottom and is rich in lead and silver with copper, tin and zinc also detected by XRF.

1535 Δ251. Small shallow hemispherical crucible with a single pouring lip and a distinct vitreous tidemark. Diameter 4-5cm. XRF detected lead and some silver.

## EXAMINATION OF SLAG FROM VARIOUS ROMAN SITES IN EXETER (EXTRACTED FROM WILTHEW 1986)

The site at Friernhay produced very small quantities of iron

smithing slag and hearth lining indicating iron smithing on or near the site but probably only on a small scale.

**Catalogue of Friernhay Street finds (ferrous metalworking)**

|      |                              |
|------|------------------------------|
| 466  | Fuel ash slag                |
| 484  | Fuel ash slag                |
| 915  | Hearth lining, fuel ash slag |
| 928  | Fuel ash slag                |
| 994  | Vitrified material           |
| 1486 | Fuel ash slag                |

**BIBLIOGRAPHY FOR APPENDIX \***

- Bayley, J. 1988 Non-ferrous metal working: continuity and change. In: E A Slater and J O Tate (eds) *Science and archaeology, Glasgow 1987*. BAR 196, 193-208.
- Bayley J. 1989 *Evidence for non-ferrous metalworking from Friernhay, Exeter Devon*. AML report 55/89.
- Hawthorne, J G and Smith, C S 1963 *On divers arts, the treatise of Theophilus*. University of Chicago Press.
- Wilthew P. 1986 *Examination of slag from various Roman sites in Exeter*, AML report 44/86



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