THE CERAMIC FINDS

J Walker L Blainey and F C Wild

(a) THE COARSEWARE

Introduction

J Walker

The Roman Conquest inspired a boom in the British pottery industry. For the first two centuries local production was centred on relatively small scale production sites, whose wares which were made to Roman tastes, were complemented by fine quality imports.

In the late Roman period imports are less common and very large scale production centres arise in Britain. As there are few examples of late pieces from the Northgate excavations most of the pottery comes from small kiln centres, perhaps similar to that discovered in the vicus by Jones and Reynolds (1978). There are, however, abundant pieces of imported amphorae from Spain and other centres.

Methods of Recording the Pottery

J Walker and L Blainey

In recording information about the pottery, constraints were placed on the form of the record and on the nature of the information it contained, by the fact that it was to be input and stored on computer. It was necessary to treat the pottery characteristics as a number of discrete attributes each of which could be measured in a standardised way, and represented by or within a separate field in the computer records. To facilitate the handling of large amounts of pottery in this way, a form of coding sheet was printed on which the various attributes of the pottery are dealt with in separate sections, each corresponding to a separate field on the computer data base (D coding sheet). These sheets hold information about individual sherds, or, where possible, groups of sherds with the same characteristics. Rims and bases were always coded separately. Sherds were given an accession number, which would correspond with the sheet number.

The Recorded Characteristics

The pottery characteristics were broken down into the following sections on the coding sheets: ware, exterior colour, interior colour, dominant fabric inclusion, grain size and shape or form, distribution, and density or frequency. The following characteristics were recorded: secondary inclusions, fabric hardness, fabric texture, finish and/or decoration, vessel form, and the portion of the vessel remaining. In measuring each of these attributes in a standardised way for each sherd or group of sherds, it was possible to build up a data base containing truly comparable fabric descriptions. The weight, number of sherds, and context numbers were also recorded on the coding sheets, as were any parallels.

The coding sheets were designed for general use in recording pottery from excavations and to conform with the system for recording collections used by the Manchester Museum's computer cataloguing Unit. For this reason they contain a section in which the site code can be recorded, and one in which a period code can be entered; in this case 'RB' for Romano British. Sections where bibliography, date and provenance could also be recorded were included on the coding sheets and the commonly accepted name of the fabric if known, for example samian ware or black burnished ware, was entered in the first section under 'ware'.

The Measurement of the Attributes

The exterior and interior colours of the sherds were described with the aid of Munsell Colour Charts. Where the colour varied on any one surface the dominant colour only was recorded. As it is usual for there to be some variation in colour between sherds from the same fabric group, even between adjacent sherds from the same vessel, it was therefore again necessary to choose the dominant colour when recording a group of sherds on one coding sheet.

The dominant inclusion was identified using an inclusions guide (Peacock 1977, 30-2). The average width in millimetres of the inclusion grains was recorded using discrete size catagories in order to limit variability. These were as follows: 0.5mm, 0.5-1mm, 1mm-2mm, 2mm-3mm. The grain were measured using an 8x 'Agfa' magnifying lens onto which a Imm graticule had been attached. Grain shape or form was described as falling into one of the following categories: 'angular' (convex, with sharp corners), 'sub-angular' (convex with rounded corners), 'round' (convex, with no corners), 'irregular' (amorphous), or 'elongated' (with a long axis twice the length of the short axis). Only two terms were used to describe the sorting or distribution of the dominant inclusion grains in the fabric; 'sorted', where the grains sizes were more or less evenly distributed, and 'all' where

the size distribution was multimodal. Again the percentage occurrence of the dominant inclusion was recorded in discrete categories. The density of the grains erupting on the broken edges or fractures of the sherds was assessed by comparison with areas bearing specific proportions of shading, on a chart originally designed for estimating the frequency of stones in soils (Robinson 1979). The frequency categories were as follows: 1%, 2%, 5%, 10%, 15%, 20%, 25%, 35%, 40%, 50% and 70%.

Inclusions, other than the dominant inclusion, were identified using an inclusion guide, and recorded in order of decreasing density.

The hardness of the fabric was determined by attempting to scratch the surface with a finger nail or with a scalpel blade. Those fabrics which could be scratched with a finger nail were described as being 'soft'; those which could not be scratched with a finger nail, but scratched with a blade were described as 'medium'; and those which could not be scratched with a blade were 'hard'. The texture was determined simply by feel: 'smooth' fabrics were those on which no irregularities could be felt; 'rough' fabrics were those on which irregularities could be felt; and 'harsh' fabrics were those which felt abrasive. The most likely types of finish and decoration were listed on the coding sheet and ringed accordingly: glazed, slipped, trailed, stamped, rouletted, wiped, scratched, burnished, combed, impressed, raised, moulded, printed, corded, gritted, wheel-thrown, handmade. Since the coding sheets were designed for general use this section includes terms which are inapplicable to the present case. Frequently several of these terms were applicable to single sherds. It was often necessary to include a free text description of the finish and its condition. The manner in which the description was written was standardised as much as possible.

In the case of samian pottery specific form names could be recorded; with coarseware a more general description was recorded in the 'form' section; 'pedestal beaker' or 'hammerhead mortarium' for example. The portion of the vessel remaining, whole, rim, base, sherd, was also recorded. Finally, the place of production, if known, was also noted.

The Statistical Tests for Variation between Recorders and the Homogeneity of the Data

It was feared that variations in the judgement of different recorders might significantly affect the homogeneity of the data base, and therefore render some fabric groupings and comparisons incorrect. The pottery was described and the information recorded on coding sheets by four people. Although within each descriptive category information was presented in a standardised way, it was necessary to test the objectivity of the assessment of certain fabric qualities before the data was used to build up different fabric groups. Differences in fabric colour and texture, for example, may have represented differences in the judgement of the four recorders, rather than any real fabric grouping.

In order to carry out tests on the reliability of the data a sample was drawn at random from the measurement of the frequency of quartz/quartzite as a dominant fabric inclusion. The sample consisted of fifty quartz/quartzite frequency measurements from each of the four recorders giving an overall sample size of two hundred measurements. In the case of commonly occurring inclusions, discrepancy between recorders is highly unlikely, and quartz/quartzite was chosen as the dominant inclusion on approximately 62% of the coding sheets.

The percentage frequency of any inclusion was judged by comparing the number of erupting dominant inclusions in the break or thickness of the vessel against visual charts of percentages of areas covered (Soil Survey Handbook). This method relied on the individual judgement of the recorder when comparing the density of inclusion grains in the fabric, with the density of shaded areas on the chart, and some variation between recorders was inevitable.

The choice of sample was also justified by the fact that the type of inclusion and its percentage frequency are critical in the establishment of our fabric groups. It was therefore vital to assess if the variation between recorders is significant.

Measurement of the percentage frequency of an inclusion involved a choice between the eleven discrete percentage categories on the frequency chart: 1%, 2%, 5%, 10%, 15%, 20%, 25%, 35%, 49%, 50%, 70%. The frequency with which each of these percentage catagories was chosen by each of the four recorders (represented by their initials: JSF, GM, AH, LJB) is presented in figure 6.1 and the pattern for the overall sample in figure 6.2. It can be seen from the histograms that the data is positively skewed. This, and the fact that the data is discrete rather than continuous, meant that statistical tests for the homogeneity of the sample were inapplicable to the raw data; nonparametric tests such as Wilcoxon's (1945) test on ranks require that the data be continuous, and it was necessary to normalise the data before such an analysis of variance could be used.

| nhana | numbers | percentage | weight | percentage | |
|-------|-----------|------------|----------|------------|--|
| phase | of sherds | numbers | in grams | weights | |
| fort | | | | | |
| 1 | 49 | 1.5 | 975 | 1.6 | |
| 2 | 268 | 8.3 | 8,331 | 13.7 | |
| 3a | 53 | 1.6 | 1,057 | 1.7 | |
| 3b | 33 | 1 | 474 | 0.8 | |
| 4a | 86 | 2.7 | 1,426 | 2.3 | |
| 4 b | 1 | 0 | 1 | • | |
| 4 C | 165 | 5.1 | 1,836 | 3 | |
| 5 | 372 | 11.5 | 7,002 | 11.5 | |
| vicus | | | | | |
| 1 | 1 | 0 | 22 | • | |
| 2a | 193 | 6 | 4,192 | 6.9 | |
| 2b | 85 | 2.6 | 1,661 | 2.7 | |
| 2c | 984 | 30.3 | 19,588 | 321 | |
| 3a | 574 | 17.7 | 7,427 | 12.2 | |
| 3c | 81 | 2.5 | 2,766 | 4.5 | |

FIG 6.1 TOTAL COARSEWARE DISTRIBUTION

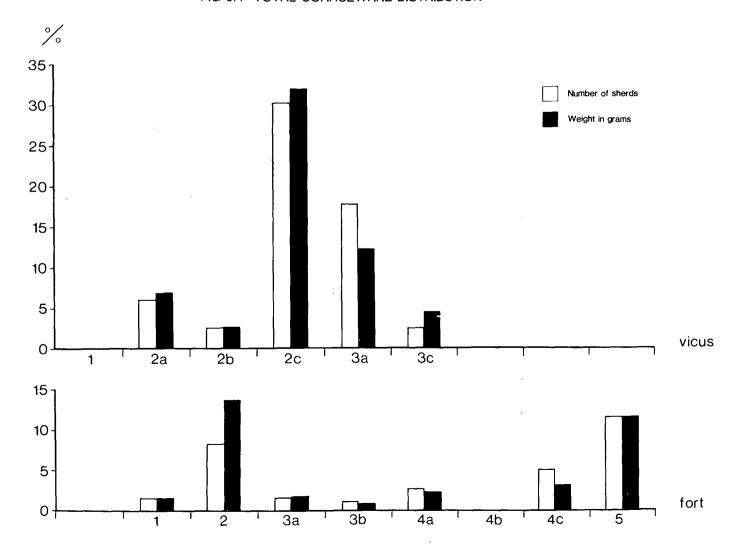


Table 6.1 - ANNOVA - VARIANCE TABLE

| Source of Variation | Degrees of Freedom | Sum of Squares | Mean Squares | F-Ratio |
|--------------------------|--------------------|----------------|--------------|---------|
| Between Groups | 3 | 0.143 | 0.048 | 1.49 |
| Within Groups (Error) | 196 | 6.312 | 0.032 | |
| Total | 199 | 6,455 | | |

Normalisation of the data was attempted using, square root, log and reciprocal transformations; these methods are progressively more drastic. The transformated data is presented on fig 6.3. It can be seen that only reciprocal transformation achieves a degree of normality.

Unfortunately, it was not possible to test for the successfulness of the reciprocal transformation, for example, by using a chi-square test to compare the normalised distribution to the 'expected' percentages of normal deviants, since this would require that the data was continuous. It is necessary to bear in mind that the viability of the result of the analysis of variance is dependant on the successfulness of the transformation.

The analysis of variance, shown in the ANNOVA table 6.1 indicated that there was no significant difference between recorders.

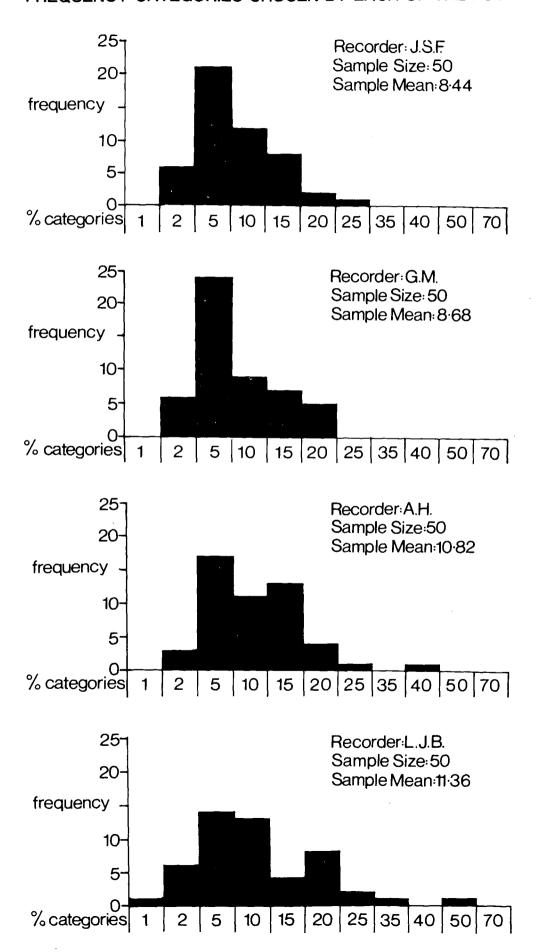
Significant level 0.05 (95%)
Limit F 0.95 (3,196) = 2.60
The F-ratio of 1.49 is less than the limit of 2.60, therefore we can accept the hypothesis that there is no difference between groups.

One recorder's (LJB) sample appeared to deviate from the overall sample distribution (table 6.2). This was due to the fact that the higher percentage categories had been utilised extending the range of the frequency measurements, and was reflected in variances and standard deviations of the four recorder samples, together with the variances and standard deviations of the transformed data.

Table 6.2 Means, Variances and Standard Deviations of the Untransformed and Transformed Data

| Recorders | | JSF | GM | AH | LJB |
|-------------------------------------|---|-----------------------|-----------------------|------------------------|-----------------------|
| Untransformed Data | Mean Variance Standard Deviation | 8.44 46.52 6.82 | 8.68 30.92 5.56 | 10.82 49.66 7.05 | 11.36 87.7 9.36 |
| Transformed Data (Reciprocal) | Mean Variance Standard Deviation | 0.09 3.01 1.74 | 0.19 1.15 1.07 | 0.08 3.2 1.75 | 0.29 35.48 5.96 |

Fig 6.2
FREQUENCY CATEGORIES CHOSEN BY EACH OF THE FOUR RECORDERS



Percentage Categories Chosen By The Four Recorders

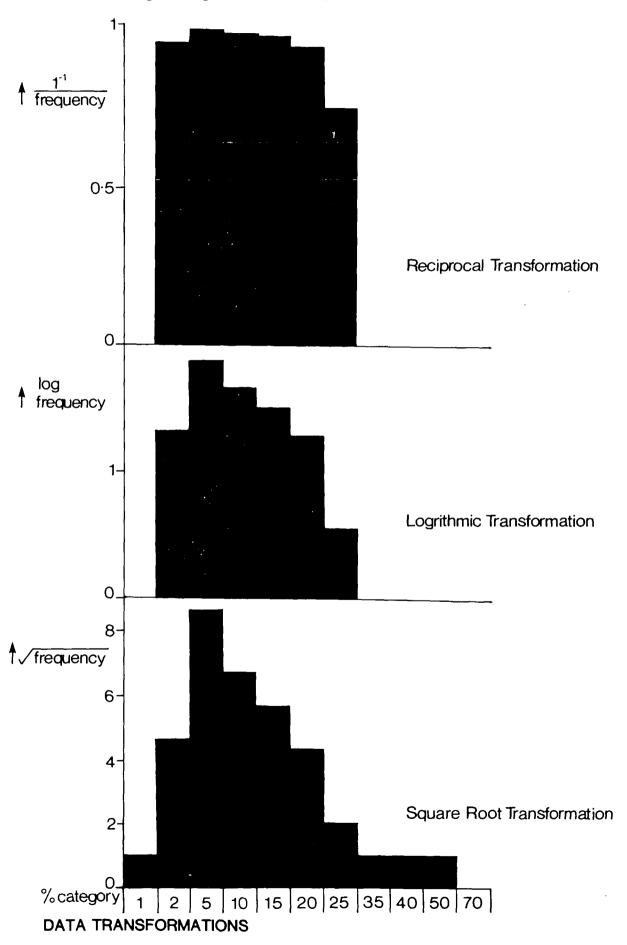


FIG 6.3

Table 6.3 Chi-Squared Test For The Goodness of Fit of LJB Data To The Overall Sample Data

$$\frac{(fa-ft)^2}{ft} = 13.78$$

degrees of freedom (categories - 1) = 10

95% x Value - 18.3

Therefore we may accept hypothesis of no significant difference.

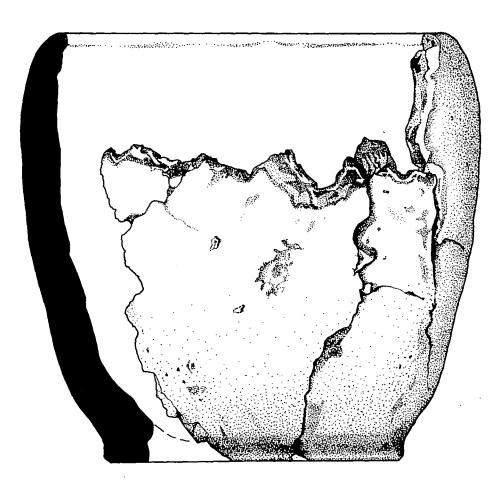
As an additional test chi-square was used to compare the sample LJB data with the total sample data, and the result, which is presented in table 6.3 indicates that there is no significant difference between the LJB data (observed) and the total sample data (expected).

Early Coarseware (fig 6.4)

1691 253 (Fort 2c)

This vessel was found in large fragments in the demolition debris of the Phase 2 Fort. It is a hand-made vessel in a group 1.2.1.2 fabric. The general shape, rim and base bear remarkable similarities to vessels discovered at Mam Tor, Derbyshire (Coombs and Thompson 1979, 35, no 4; 37, no 2; 38, no 11) which date to the late Bronze Age/early Iron Age.

Judging by its near completeness and context this vessel may have been in use during the first century AD and if so probably represents a survival of the traditional Brigantian pottery industry.



1.2.1.2 1981-1691

FIG 6.4

5cm

FORT 2

Table 6.4 Coarseware Group Descriptions

| Group Number | Dominant Inclusion | Inclusion Size | Inclusion Frequency | Colour Range | Phase |
|-------------------|--------------------------------------|------------------------------|------------------------|-------------------------|-----------------------------|
| | Quartz/Quartzite | 0.5-1 | 10 | 1,2,3 | 1,2,3,4,5 |
| 2 | Quartz/Quartzite | 0.5-1 | | 1,2,3 | 1,2,3,4,5 |
| 3 | Quartz/Quartzite | 0.5-1 | 5 2 | 1,2,3 | 1,2,3,4,5 |
| 4 | Quartz/Quartzite | 0.5-1 | 1 | 1,2,3 | 1,2,3,4,5 |
| 5 | Quartz/Quartzite | 0.5-1 | 15 | 1,2,3 | 1,2,3,4,5 |
| 6 | Quartz/Quartzite | 0.5-1 | 20 | 1,2,3 | 1,2,3,4,5 |
| 7 | Quartz/Quartzite | 0.5-1 | 25 | 1,2,3 | 1,2,3,4,5 |
| 8 | Quartz/Quartzite | 0.5-1 | 35 | 1,2,3, | 2,4 |
| 9 | Quartz/Quartzite | 0.5-1 | 40 | 2,3 | 4 |
| 10 | Quartz/Quartzite | 0.5-1 | 50 | 2,3 1,2,3 | 2,5 |
| 11 | Quartz/Quartzite | 0.5 | 10 | 1,2,3 | 1,2,3,4,5 |
| 12 13 | Quartz/Quartzite Quartz/Quartzite | 0 . 5 0 . 5 | 5 2 | 1,2,3 1,2,3 | 1,2,3,4,5 1,2,3,4,5 |
| 14 | Quartz/Quartzite | 0.5 | j | 2 | 2,3,5 |
| 15 | Quartz/Quartzite | 0.5 | 15 | 1,2,3 | 1,2,3,4,5 |
| 16 | Quartz/Quartzite | 0.5 | 20 | 1,2,3 | 2,3,5 |
| 17 | Quartz/Quartzite | 0.5 | 25 | 1.3 | |
| 18 | Quartz/Quartzite | 0.5 | 35 | 1,3 1,3 | 2,4 2 2,3 2,5 5 |
| 19 | Quartz/Quartzite | 1-2 | 10 | 1,2 | 2,3 |
| 20 | Quartz/Quartzite | 1-2 | 5 | 1,2,3 | 2,5 |
| 21 | Quartz/Quartzite | 1-2 | 2 | 2 | 5 |
| 22 | Quartz/Quartzite | 1-2 | 1 | 2,3 | 2 |
| 23 | Quartz/Quartzite | 1-2 | 15 | 1,2,3 | 2 2,3,5 |
| 24 | Quartz/Quartzite | 1-2 | 20 | 3 | 2,3,5 |
| 25 | Quartz/Quartzite | 1-2 | 25 | 2 | 2 |
| 26 | Black Iron Ore | 0.5-1 | 10 | 1,2,3 | 2,4,5 |
| 27 | Black Iron Ore | 0.5-1 | 5 2 | 1,2,3 | 2,3,4,5 |
| 28 29 | Black Iron Ore Black Iron Ore | 0.5-1 0.5-1 | i | 1,2,3 2 | 2,3,4,5 |
| 30 | Black Iron Ore | 0.5-1 | 15 | 2 | 2,3 2 |
| 31 | Black Iron Ore | 0.5 | 10 | 1,2,3 | 2,3,4,5 |
| 32 | Black Iron Ore | 0.5 | 5 | 1,2,3 | 2,3,4,5 |
| 33 | Black Iron Ore | 0.5 | 2 | 1.2.3 | 1,2,3,4,5 |
| 34 | Black Iron Ore | 0.5 | ī | 1,2,3 1,2,3 1,2,3 | 2,3 |
| 35 | Black Iron Ore | 0.5 | 15 | 1,2,3 | 2,5 |
| 36 | Black Iron Ore | 0.5 | 20 | 2,3 | 2 2 2 |
| 37 | Black Iron Ore | 1-2 | 10 | 2 | 2 |
| 38 | Black Iron Ore | 1-2 | 5 5 | 1 | |
| 39 | Mica | 0.5-1 | 5 | 1 | 2 |
| 40 | Mica | 0.5 | 10 5 | 1,2,3 | 1,2,3,4,5 |
| 41 | Mica | 0.5 0.5 | 2 | 1,2,3 | 1,2,3,4,5 |
| 42 43 | Mica Mica | 0.5 0.5 | 15 | 1,2,3 | 2,3,4,5 |
| 43 44 | Mica | 0.5 | 20 | 1,2,3 | 1,2,3,4,5 1,2,3 |
| 45 | Mica | 0.5 | 25 | 1,2,3 1,2,3 1,2 | 1,2,3 |
| 46 | Mica | 0.5 | 35 | 2 | 2 |
| 47 | Red Iron Ore | 0.5-1 | 10 | 3 | 2 3 |
| 48 | Red Iron Ore | 0.5-1 | 5 | 2,3 | 2,3,4,5 |
| 49 | Red Iron Ore | 0.5-1 | 2 | 2.3 | 2,3,4,5 |
| 50 | Red Iron Ore | 0.5-1 | i | 2,3 2,3 1,3 | 2,3,4,5 2,3,4 |
| 5 ,t 52 | Red Iron Ore | <0.5 | 10 | 2,3 | 2,3,4 |
| 52 | Red Iron Ore | <0.5 | 5 | 1,3 | 2,3,4,5 |
| 53 | Red Iron Ore | <0.5 | 2 | 1,2,3 | 2,3,5 |
| 54 | Red Iron Ore | <0.5 | 1 | 2,3 | 3,4 |
| 55 | Red Iron Ore | <0.5 | 15 | 3 | 2,3 2 |
| 56 | Red Iron Ore | 1-2 1-2 | 2 5 | 1,2,3 | ۷ * |
| 57 58 | Calcite Calcite | 1-2 | 25 | 1 | * |
| 59 | Calcite | 2-3 | 15 | i | |
| 60 | Grog | 1-2 | 13 | 3 | 5 2 5 4 |
| 61 | Grog | 1-2 | 20 | Ĩ | 5 |
| 62 | Grog | 2-3 | 20 | İ | 4 |
| 63 | Limestone | 0.5 | 2 | 2 | 2 |
| 64 | Rose-Quartz | 0.5 | 15 | 1 | * |
| 65 | Mica | 0.5 | l | 1,2,3 | 2,3,5 |
| | | | | | |

The Fabric Groups

J Walker

The entries to each group for each vessel consist of a four figure accession code of Manchester followed by a feature number. An asterisk preceeding the code indicates that the sherd is illustrated in this report. The occurence graphs are included for all fabric groups that make up 5% or more of the total pottery from any given phase either by the total weight of pottery from that phase (filled columns) or by the total number of sherds for that phase (unfilled columns). Vessels are illustrated either because of their presumed uniqueness or as evidence of date where parallels may not be exact. All known group numbers of occuring fabrics are included even if the occurence of that fabric is very rare.

GROUP ONE

1.2.1.1 (fig 6.5)

A hard, rough fabric with angular ill-sorted grains and dominant colour brown.

*2853 830 (Vicus 2c)

Gillam 1970, 71, no 314, fig 31.

1.2.1.2

A hard, rough fabric with angular ill-sorted grains and dominant colour neutral. 333 (Fort 1) Black burnished I jar; Gillam 1970, no 128; AD 130-180. 253 (Fort 2) 1691 Hand made jar; Coombs and Thompson 1979, 35, no 4; 37, no 2; 38, no 11. *3648 729 (Vicus 3a) *3747 753 (Vicus 3a) Jar, AD 70-100 to early 3rd century. 566 (Vicus 3c) *****2723 Mortarium. 1003 (Fort 1) 1737 Globular amphora with neck and handles deliberately removed. Found upright in a pit in the small building associated with the Northgate. It was found to contain large numbers of bones of small mammals (see Chapter 5h) and functioned as a water butt.

The graph indicates that this is one of the largest fabric groups from the site and the fabric accounts for a large percentage of the heavier greywares.

1.4.1.2

This fabric was largely confined to phase 2.

1.5.1.1

A hard, rough fabric with a medium rough texture and neutral colour.

*4329 995(Vicus 2b) *4080 882 (Vicus 2b)

Greyware rim; Gillam 1976 no 105; AD 80-120. 655 (Vicus 2c) Greyware jar; Dore 1979 no 98. *3062 655 (Vicus 2c) Greyware copy of Dragondorf type 37 with slight mica dusting; Marsh 1978, type 42; late 1st century. (fig 6.6) *3106 662 (Vicus 2c) Greyware rim of jar; Jones 1973, no 161; Friendship-Taylor 1979,78, fig.75; AD 60-80. 655 (Vicus 2c) Black burnished fabric everted jar rim; Gillam 1976, no 2; AD 160-180. *3734 734 (Vicus 3a) Rim from globular jar; Dore 1983, 100, fig 863. 921 (Fort 5) Everted rim; Detsicas 1977, 33, fig 84; early-mid 1st century. No parallels: *3688 742 (Vicus 2c) *3970 796 (Fort 4a) The majority of vessels of this fabric occur in the early phase of the vicus and the graph probably indicates the large amount of redeposition that occurred on the site.

1.5.1.2

This fabric is the same as that immediately above except that the colours are in the brown range. 655 (Vicus 2c) Globula amphora; Collingwood and Richmond 1969, fig 91c; 1st-2nd century 3036 655 (Vicus 2c) Bowl; Gillam 1970,62,fig 22,no 195; AD 140-200. *3077 662 (Vicus 2c) Everted rim; Brodribb et al 1973, no 491, is in a different fabric but is identical in form; cAD *3838 767 (Vicus 2c) Rim of globula amphora. *3910 775 (Vicus 2c) *3988 843 (Vicus 2c) Small enclosed vessel. 1015, 1019 (Vicus 2c) 4383 Rim of amphora. 2460 332 (Fort 2). Mortarium; Gillam 1970, 65, fig 25, no 249; AD 130-160. *2468 458 (Fort 5) Mortarium; Gillam 1970, 65, fig 25, no 249; AD 130-160, (but of a different size). *2861 663 (Vicus 4) A variety of single jar rims occur in this fabric. These are not illustrated as at this stage there are few direct parallels for these simple forms. The graph indicates the dominant position of this fabric in the early phases of the site when it was frequently used for amphorae which rarely occur from the 2nd century onwards.

1.5.1.3

As previous group except in a white or neutral fabric.
*3775 754 (Vicus 2c)
Mortarium; Gillam 1970, 65,fig 25, no 242; AD 90-130.

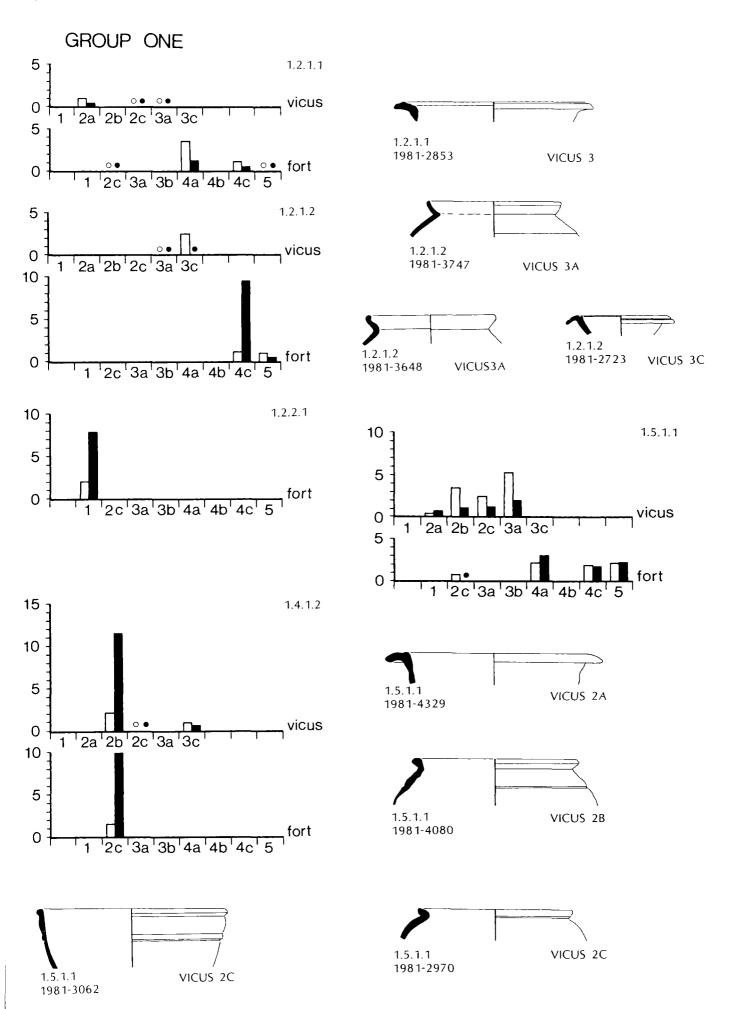


FIG 6.5, SCALE 1:4

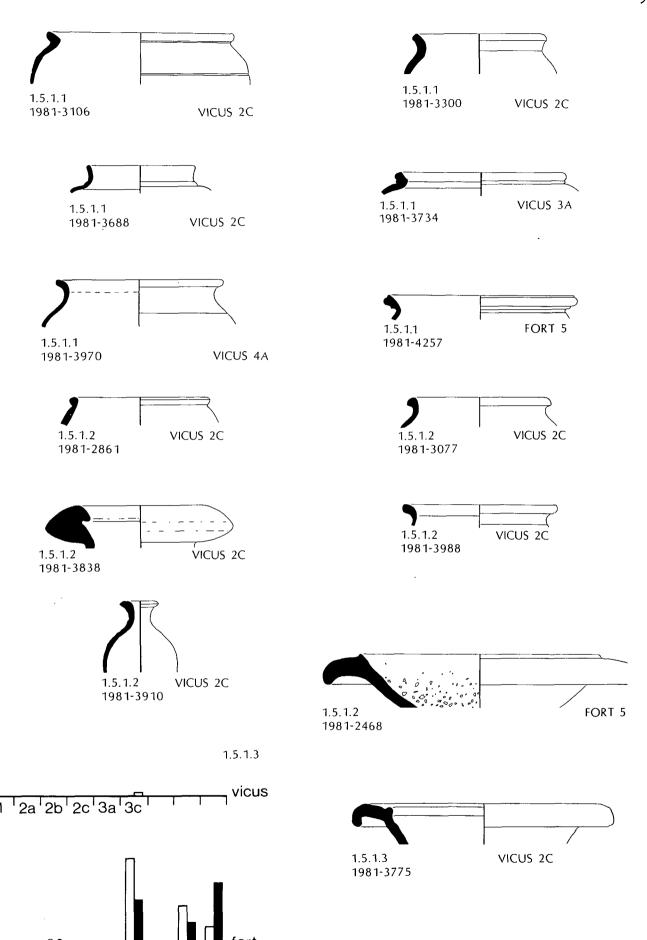


FIG 6.6, SCALE 1:4

2c 3a 3b 4a 4b 4c 5

Although this type of fabric appears to be especially frequent in the later phases of the site, the illustrated sherd at least must be redeposited.

(fig 6.7)

1.5.2.2

Occurs only in fort phase 4a.

Quartz/quartzite grains of 0.5-1mm with a frequency of 10%; a medium smooth fabric with angular ill-sorted grains and a neutral colour. 645 (Vicus 3a) Shallow greyware dish; Brodribb et al 1973, no 31, which is slightly larger; AD 100-200.

1.6.1.2

As above but of a brown colour. 3047 692 (Fort 5) Sherd of an everted rim jar in poorly fired black burnished Group 1 type fabric; Gillam 1970, 54, fig 14, no 122; AD 120-160.

1.8.1.2

As above but in a soft, rough fabric.

1.9.1.2

As the above material but with a soft, smooth fabric.

*4347

969 (Vicus 2b)

Everted rim; Gillam 1970, 52, fig 12, no 102; AD 80-120.

This softer fabric is particularly frequent in Phase 3b of the fort, in terms of accounting for a high percentage of the total weight of pottery deposited in that period.

GROUP TWO

Quartz/quartzite fabrics with a grain size of 0.5-1mm and a frequency of only 5%.

2.2.1.1

A Group 2 fabric which is hard and has a rough texture with angular ill-sorted grains and neutral colour.

*2246

268 (Vicus 2c)

742 (Vicus 2c)

Rusticated greyware jar; Gillam 1970, fig 11, no 97; AD 80-130.

*3687

Narrow flange rim.

*3670

726 (Fort 2) Rusticated wares occur relatively infrequently

from the site.

(fig 6.8)

2.2.2.2

A group 2 fabric with angular, sorted grains and brown in colour, occurring only as sherds in Phase 4a of the fort.

1st - early 2nd century.

No parallels:

*4374 955 (Vicus 2a) *4389 1031 (Vicus 2a) *4321 993 (Vicus 2c) 734 (Vicus 3a) 756 (Fort 4a) *3706 *3832

2.5.1.1

A Group 2 fabric of medium hardness, rough texture, angular ill-sorted grains and neutral colour.

*4326 994 (Vicus 2c)

Greyware jar; Dore and Gillam 1979, no 98; mid to late Antonine period.

566 (Vicus 3c)

Plain everted rim; Dore 1983, 75, fig 325; late 1st - early 2nd century.

(fig 6.9)

2.5.1.2

*2818 819 (Vicus 3a)

Small carinated jar; Canham 1978, 50, no.57.

192 Small mica dusted jar; Marsh 1978, type 22; 1st

century. *2791

803 (Fort 5)

Everted rim; Brodribb et al 1973, no 491; AD 150; Friendship-Taylor 1971-72, 32, fig 54.

2.5.1.3

*2826 234 (Fort 2)

Bowl with lid seating; Gillam 1970 fig 23; AD

80-125

*3002 623 (Vicus 3a)

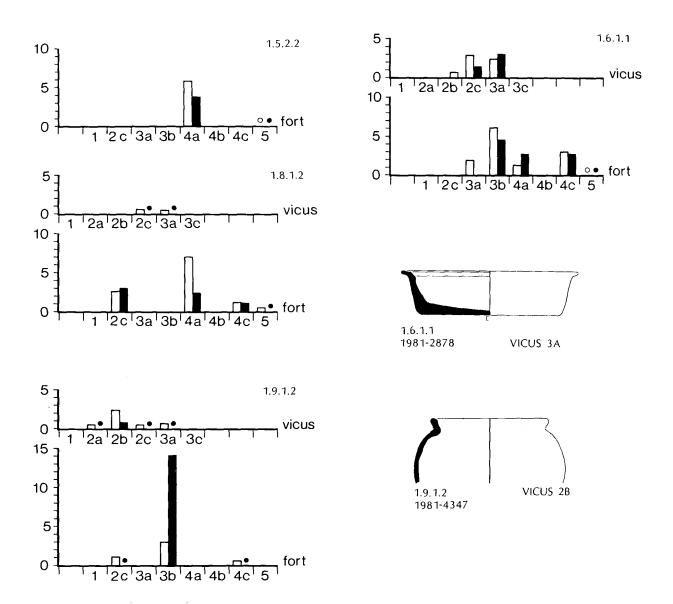
Rim of tazza.

2.5.2.1

A group 2 fabric with medium rough hardness and texture, angular sorted grains and a neutral colour. This fabric occurs in Phases I and 4a of the fort.

2.5.2.2

As a fabric type it appears in Phase 3 of the vicus and Phase 4a of the fort. This chronological anomaly in occurrence can be accounted for in a number of ways. If the distribution has not been affected by differential deposition and recovery it is possible that the graph may indicate that a difference in assembly between the fort and the vicus did actually exist, which otherwise is not shown by variation in the forms of the vessels.



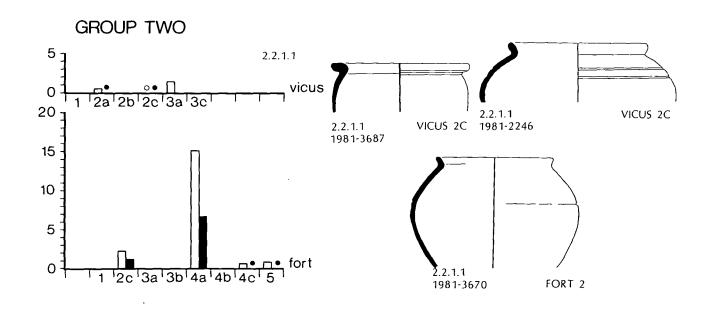


FIG 6.7, SCALE 1:4

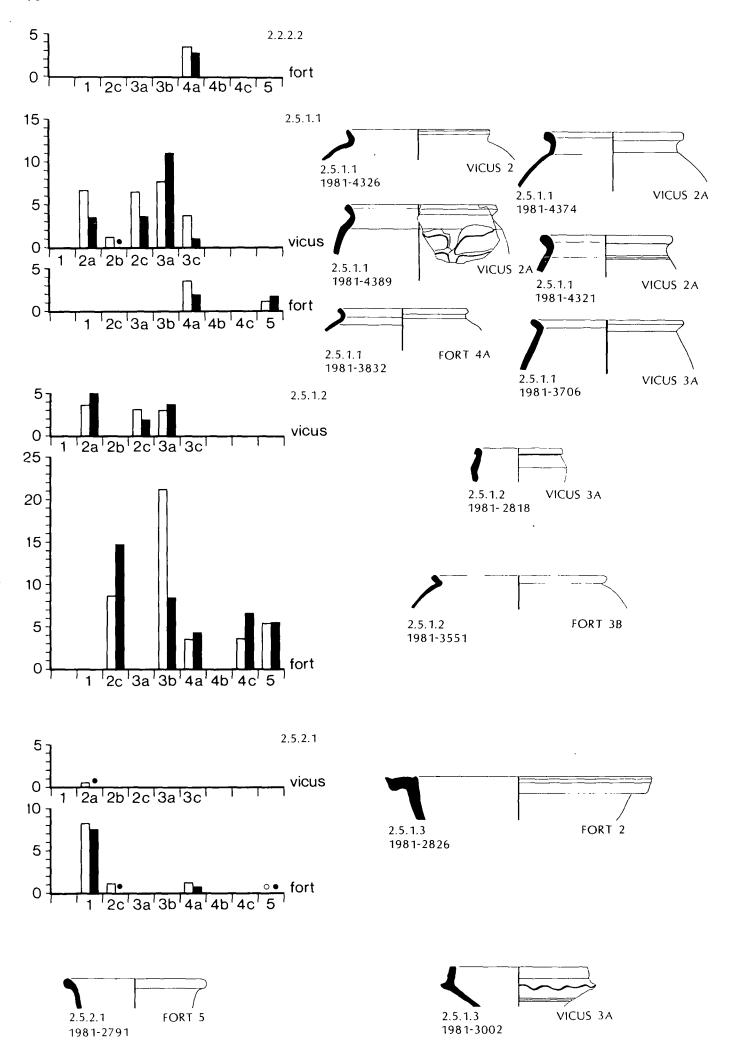


FIG 6.8, SCALE 1:4

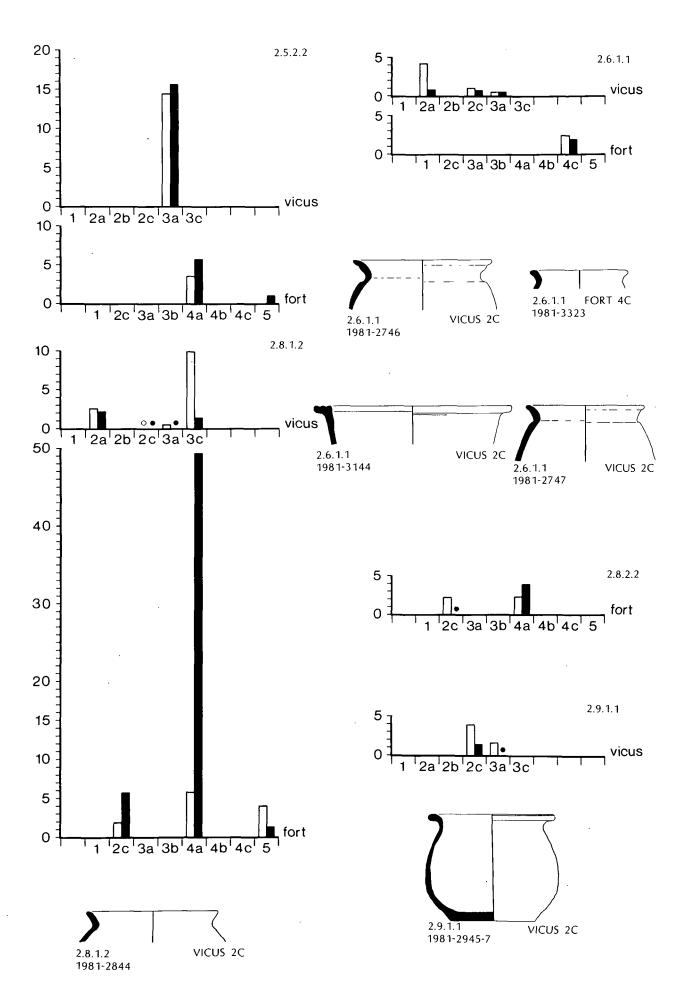


FIG 6.9, SCALE 1:4

2.6.1.1

A Group 2 fabric with medium hardness and smooth texture, angular ill-sorted grains and a neutral colour.

*3323 84 (Fort 4c) Dore 1983, 88, fig 703; mid-3rd century.

No parallels:

*2746 863 (Vicus 2c) *2747 863 (Vicus 2c) 707 (Vicus 2c)

*3144

2.8.1.2

As above fabric except with a low hardness, rough texture and brown in colour.

*2844

830 (Vicus 2c)

Everted rim; Jones 1973, 8, fig 34; late 1st/early 2nd century; Dore 1983, 68, fig 258, mid-2nd century.

This fabric was widely used in the making of globular amphorae which were probably imported from Spain.

2.8.2.2

As above fabric, but with a low hardness and rough texture.

2.9.1.1

*2945-7 863 (Vicus 2c)

Fragments of rusticated greyware jar from one complete vessel. Such a low quantity of this survived as to render a graph meaningless.

(fig 6.10)

***2950** 658 (Vicus 3a)

Greyware rim; Jones 1974, no 182, fig 39; late Greyware, 1st/early 2nd century. 733 (Vicus 3a)

Gillam 1970, 52, fig 12, no 101; AD 70-110.

2.9.2.2

As above but in a neutral colour.

863 (Vicus 2c)

Indented beaker; Gillam 1970, 49, fig 9, no 73; AD 90-140.

Fragments of indented beakers are extremely rare and it is thought that the vessel represents one of the early types.

GROUP THREE

Quartz/quartzite with a grain size of 0.5-1mm and a frequency of 2%.

3.2.1.1

A Group 3 fabric with a rough surface, angular, ill-sorted grains and neutral colours.

268 (Fort 2)

Gillam 1970, 52, fig 12, no 107; AD 80-130.

No parallels:

*2515 *2517

467 (Vicus 2c)

467 (vicus 2c)

3.3.1.1

A hard fabric with a smooth texture, angular ill-sorted grains and neutral colour. *3151 706 (Fort 2) Everted greyware rim; Gillam 1970, 53, fig 13, no 112: AD 110-130.

3.4.1.2

This fabric is of medium hardness with a harsh texture, angular, ill-sorted grains and a brown range of colours. A few body sherds of this fabric occurred in Phase 4c of the fort.

3.5.1.1

A medium hard Group 3 fabric with a rough surface, angular, ill-sorted grains and a neutral colour. 819 (Vicus 3c) *2806 Cornice beaker with black colour code; Gillam 1970, 49, fig 9, no 72; AD 80-130.

3.5.1.2

As the above fabric but in a brown colour.

(fig 6.11)

3.5.2.2

As above fabric except that the grains are angular and sorted. *2715 569 (Fort 1)

Flagon of mid to late 1st century form.

3.6.1.1

A medium hard Group 3 fabric with a smooth texture, angular ill-sorted grains and a neutral

2942 863 (Vicus 2c) Jones 1973, no 161; no date.

3.6.1.2

3.6.2.2

A Group 3 fabric of medium hardness, smooth texture, angular sorted grains and a brown colour. A few body sherds from this were only recovered from the fort.

3.8.1.2

Most of this material comes from Phase 4b of the fort.

3.8.2.2

A soft rough Group 3 fabric with angular sorted grains and a brown colour. *2680

838 (Vicus 2c) The top of an everted rim jar with trailed decoration; Dore and Gillam 1979, no 6, fig. 35 which is in a different fabric but of similar form; Trajanic to early Hadrianic.

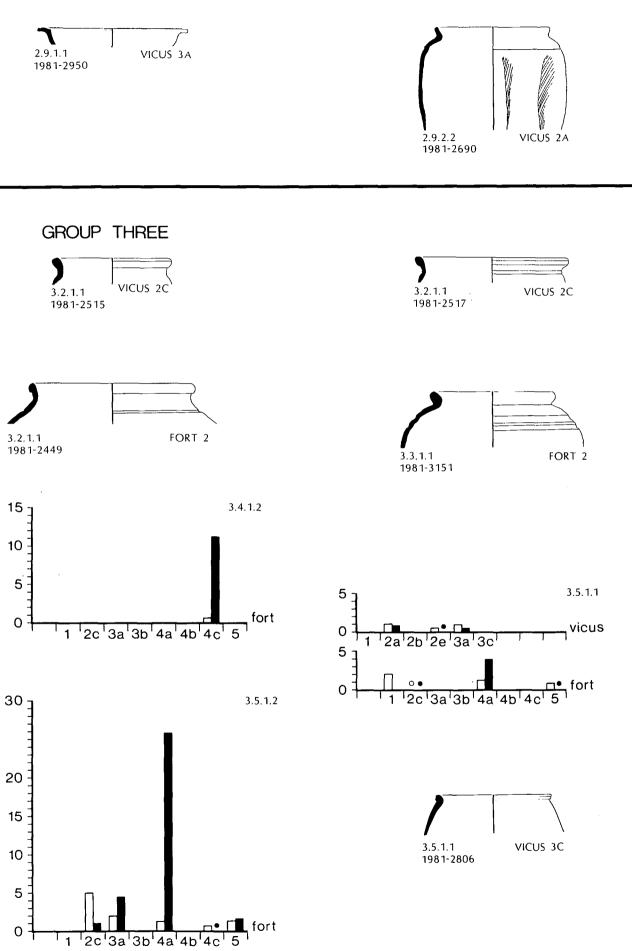
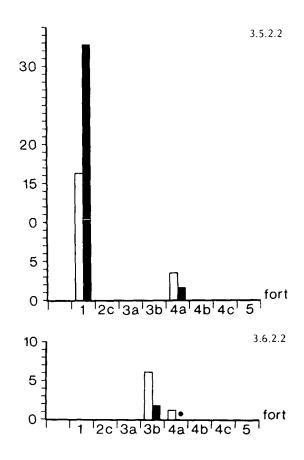
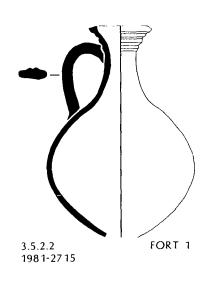
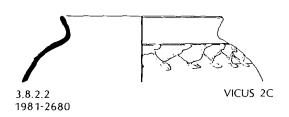


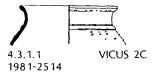
FIG 6.10, SCALE 1:4

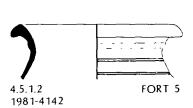


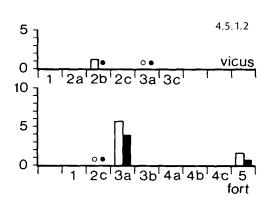


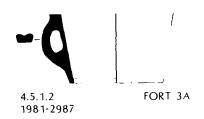


GROUP FOUR









GROUP FOUR

Quartz/quartzite inclusions with a grain size of 0.5-1mm and a frequency of 1%.

A hard Group 4 fabric with a smooth texture, angular ill-sorted grains and a neutral colour. 467 (Vicus 2c) Poppy head beaker rim with Barbatine dots; Gillam 1970, 49, fig 9, no 70, of a similar frequency and fabric, but a different finish.

4.5.1.2

As above but of medium hardness, a rough surface, and brown in colour.

651 (Fort 3a) *2987

A Redware beaker; Gillam 1970, 60, fig 20, no 182; AD 120-170.

Fragments of this type occur sporadically throughout early assemblages. This is probably one of the later examples, AD 120-170. 899 (Fort 5) *4142

GROUP FIVE

A similar fabric to the others except that the frequency of the grains is 15%.

A hard group 5 fabric with a rough surface, angular ill-sorted grains and neutral colour.

(fig 6.12)

5.2.1.3

As above fabric but in a buff/white colour.

742 (Vicus 2) *3686 *4444 477 (Vicus 3)

Mortarium rim with stamp; Gillam 1970, 64, fig 24, no 240; AD 80-110.

5.2.2.1

A Group 5 fabric with angular sorted grains and neutral in colour. Small amounts of this fabric were found only from within fort context.

5.3.1.2

A hard Group 5 fabric with a smooth texture and brown colour.

*3723

735 (Vicus 2a)

This fabric also restricted to fort deposits. No parallel.

5.4.1.2

A medium hard Group 5 fabric with a harsh texture, angular ill-sorted grains and a brown colour.

5.5.1.2

A medium hard fabric with a rough surface, angular ill-sorted grains and a brown colour. 3240 10 (Fort 4)

Redware mortarium; Dore and Gillam 1979, no 60, where a white, colour coated version is Hadrianic.

*4209 4010

934 (Fort 2) 843 (Fort 5)

A fragment of globula amphora.

921 (Fort 5) *4266 This fabric occurs from Phases 2 to 4 with a gap in 4b and 4c, and in 5, indicating the large amount of redeposition in Phase 5.

5.5.2.2

611 (Fort 5) Globula amphora; Jones 1974, fig 34; 1st/2nd century.

5.6.1.1

A Group 5 fabric of medium hardness with a smooth texture, angular ill-sorted grains and a neutral colour.

*2735 803 (Fort 5)

Black burnished type everted rim; Gillam 1976, no 8; mid 3rd century.

*2736 803 (Fort 5)

Black burnished type everted rim; Gillam 1976, no 7; late 2nd to early 3rd century.

(fig 6.13)

5.6.1.2

A similar fabric to the above save that it has a smooth texture. Occurs only in Phases 2, 3 and 4.

5.8.1.2

3428 104 (Fort 2)

Double beaded Redware rim, Brodribb et al 1973, 71, no 610, fig. 35; no date.

5.9.1.2

A soft Group 5 fabric with a smooth surface and brown colour. The relatively few occurrences of this fabric come largely from Phases 1 and 2, after which, apart from a redeposited piece in Phase 3, the fabric appears to have gone out of use. Occurs only in Phases 1, 2 and 3.

GROUP SIX

Quartz/quartzite inclusions with a grain size of 0.5-1mm and a frequency of 20%.

6.2.1.1

A Group 6 fabric with angular ill-sorted grains and a neutral colour.

*3685

742 (Vicus 2c)

*2833

623 (Vicus 3a) Gillam 1970, 54, fig 14 no 122; AD 120-160.

96 (Fort 5)

Gillam 1976, no 1; early/mid 2nd century.

6.3.2.1

As above fabric save that it has a hard smooth

GROUP FIVE

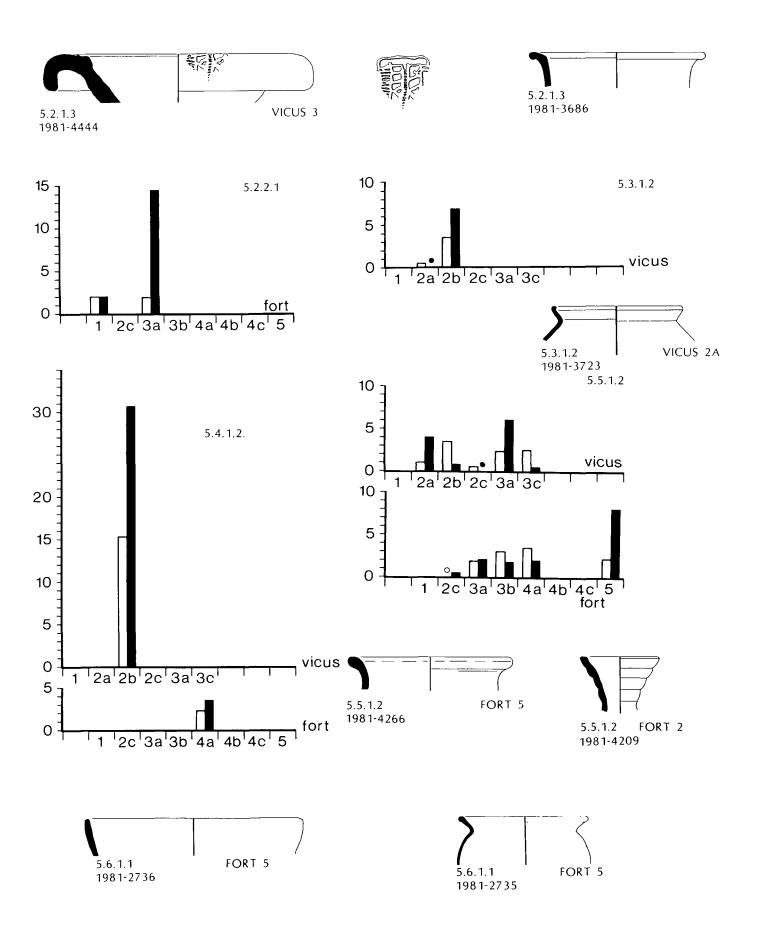
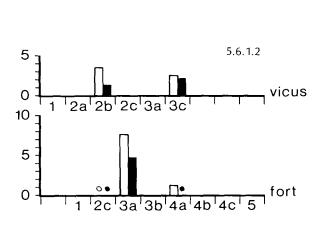
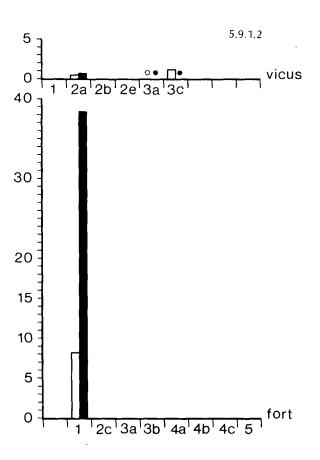


FIG 6.12, SCALE 1:4





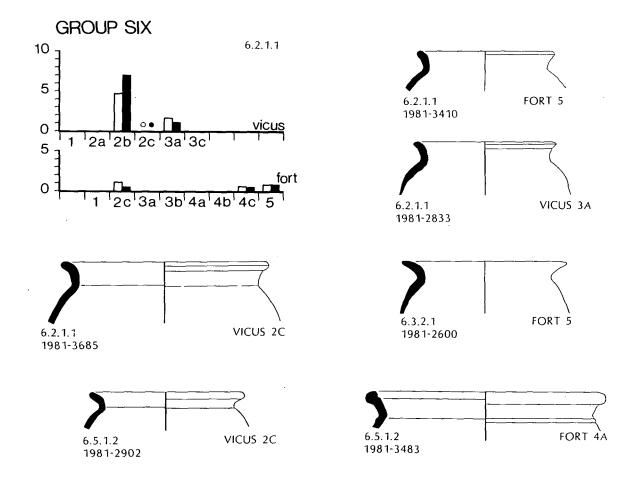


FIG 6.13, SCALE 1:4

texture and angular sorted grains. *2600 611 (Fort 5)

Black burnished type everted rim; Gillam 1976, no 9; mid/late 3rd century.

6.5.1.2

This material clearly dominates the earliest phases of the vicus. A medium hard Group 6 fabric with a rough surface, angular ill sorted grains and a brown colour.

*2902 3721 863 (Vicus 2c) 733 (Vicus 3a)

Globula amphora; Collingwood and Richmond 1969; 1st to 2nd century.

*3483

108 (Fort 4a)

Jones 1974, no 38, where it is seen as reminiscent of 3rd and 4th century wares.

6.5.1.3

(fig 6.14)

A Group 6 fabric of medium hardness, rough texture, angular ill-sorted grains and a buff/white colour.

*2717

569 (Fort 1)

Flagon.

6.6.1.1

A similar fabric to the above save that it has a smooth texture and a neutral colour.

2737 803 (Fort 5)

Gillam 1976, no 79; late 2nd/early 3rd century. 2738 803 (Fort 5)

Gillam 1976, no 79; late 2nd/early 3rd century. These three sherds are from the same context.

2739 803 (Fort 5) Gillam 1976, no 8; mid 3rd century.

6.8.1.1

As above save that it is soft with a smooth surface.

*4199

886 (Vicus 2c)

6.8.1.2

As above except that it is in a brown colour. Occurs only in Phases 2 and 4.

6.8.2.2

A soft Group 6 fabric with a smooth surface, angular, ill-sorted grains and a brown colour. *2342 225 (Fort 3a) Flagon; Hawkes and Hull 1947, Pl. LXI, no 146, very similar but in a different fabric; AD 50-100.

6.9.1.2

As above but soft, smooth texture and with angular, ill-sorted grains and a brown colour. *4353 1011 (Vicus 2a)
Barbotine decorated beaker; Gillam 1970, 49, fig 9, no 71; AD 150-200.

GROUP SEVEN

Quartz/quartzite inclusions with a grain size of 0.5-1mm and a frequency of 35%.

7.2.1.1

A hard, rough textured Group 7 fabric with angular grains and a neutral colour.

3848 775 (Vicus 2c)

Gillam 1976, no 2; AD 160-180.

A plain version.

7.3.1.1

A hard, smooth Group 7 fabric with angular ill-sorted grains and a neutral colour. 3347 775 (Vicus 2c)
Gillam 1976, no 1; early/mid 2nd century (although this version is plain). 3805 767 (Vicus 2c)
Gillam 1976, nos. 73 and 79; early 3rd century. *3156 722 (Fort 3b)
2nd century black burnished type bowl.

7.6.1.1

A medium hard smooth fabric of neutral colour. 4308 1066 (Vicus I) Gillam 1977, no 36; mid 2nd century.

7.8.1.2

*3717 733 (Vicus 3) Lid

GROUP EIGHT

Quartz/quartzite inclusions with a grain size of 0.5-1mm and a frequency of 40%.

8.2.1.2

3603 655 (Vicus 2c)
Gillam 1970, 53, fig 13, no 119; AD 120-160.
A plain version of a similar vessel.

GROUP NINE

Quartz/quartzite inclusions with a grain size of 0.5-1mm and a frequency of 40%.

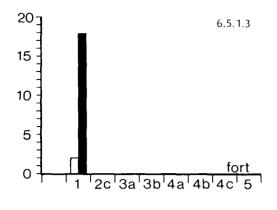
9.1.1.3

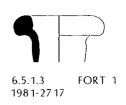
A single sherd of this fabric was discovered.
3676 737 (Fort 4a)
Black and red iron-like deposits on exterior and internal surfaces, possibly a sherd of an imported amphora.

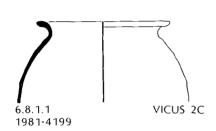
GROUP ELEVEN

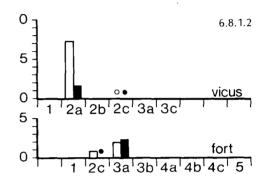
(fig 6.15)

Quartz/quartzite inclusions with a grain size of less than 0.5mm and a frequency of 10%.

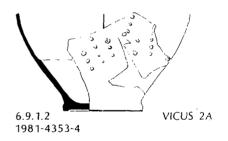




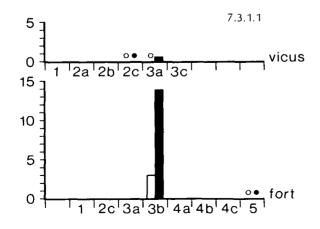








GROUP SEVEN



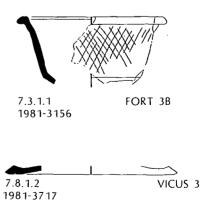


FIG 6.14, SCALE 1:4

GROUP ELEVEN

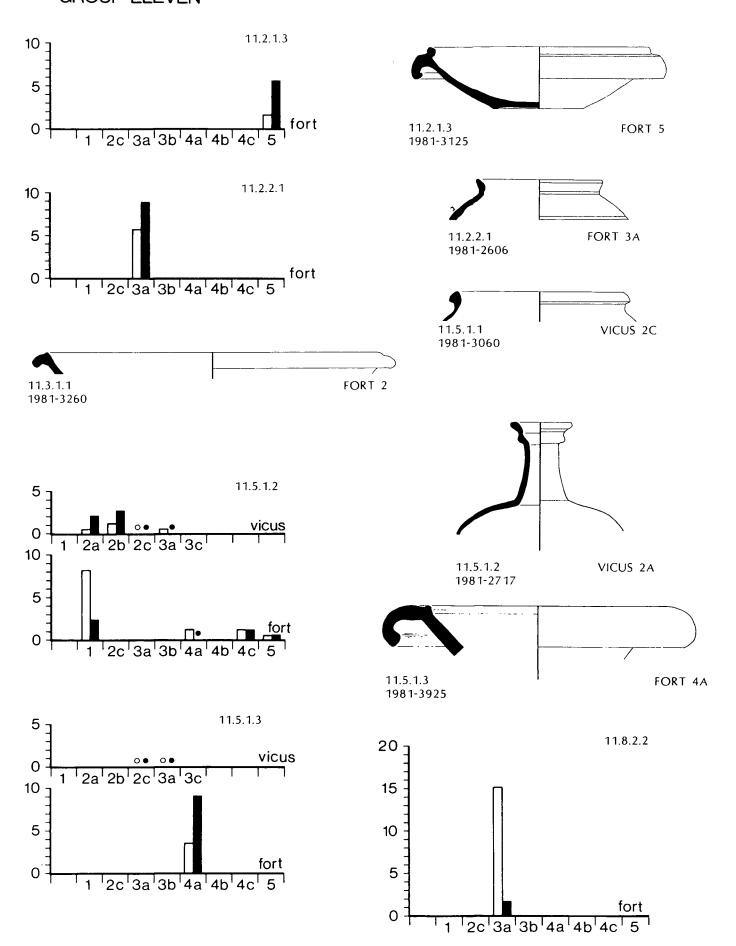


FIG 6.15, SCALE 1:4

11.2.1.1

A hard, rough Group II fabric with angular ill-sorted grains and a neutral colour.

As above except that it is buff/white in colour. Occurs only in Phase 5.

196 (Fort 5)

Bead rim mortarium, with no grits cAD 130-160

11.2.2.1

A Group 11 fabric with angular sorted grains and a neutral colour.

*2606

615 (Fort 3a)

This fabric occurs only in Phase 3

11.3.1.1

*3260

55 (Fort 2)

A flanged rim from a greyware dish. Gillam 1970, 70, fig 30, no 291; AD 80-120.

11.5.1.1

A medium hard, rough Group II fabric.

655 (Vicus 2c)

A greyware rim; Gillam 1970, 52, fig 12, no 107; AD 80-130.

11.5.1.2

*2717

995 (Vicus 2a)

2973 655 (Vicus 2c) Gillam 1976, no 31; mid/late 2nd century.

11.5.1.3

A medium hard, rough textured Group 11 fabric with angular, ill-sorted grains and a buff/white colour.

*3925

784 (Fort 4a)

Mortarium. This fabric occurs in Phases 2, 3 and

11.8.2.2

This material was confined to Phase 3a of the fort.

GROUP TWELVE

(fig 6.16)

Quartz/quartzite inclusions with a grain size of less than 0.5mm and a frequency of less than 1%.

12.6.1.1

12.6.2.2

*2682 838 (Vicus 2c) Jones 1973, no 134.

*2744

863 (Vicus 2c)

*2745

863 (Vicus 2c)

12.9.1.3

12.9.2.1

GROUP THIRTEEN

Quartz/quartzite inclusions with a grain size of less than 0.5mm and a frequency of 2%.

13.5.2.2

A medium hard, rough group 13 fabric with angular sorted grains and a neutral colour.

13.5.1.2

As above except that the grains are angular and sorted.

*3051

694 (Vicus 2a)

Jones 1973, no 171; 2nd to early 3rd century. This fabric occurs in Phases 3, 4 and 5.

Occurs in Phases I and 3.

13.6.1.1

As above but medium hard and smooth and with angular sorted grains.

718 (Fort 2) *3153

Jar with rusticated decoration; Gillam 1977; AD 80-130.

13.6.2.1

*2304

226 (Fort 1)

Greyware flanged rim of dish; Dore and Gillam 1979, 141, no 164, fig 39; 4th century.

GROUP FIFTEEN

(fig 6.17)

Quartz/quartzite inclusions with a grain size of less than 0.5mm and a frequency of 15%.

15.2.1.3

15.6.1.1

809 (Fort 4a) Gillam 1976, no 42; late 2nd/early 3rd century.

15.9.1.2

A soft, smooth Group 15 fabric occurring only in Phase 1.

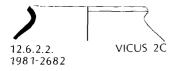
GROUP SEVENTEEN

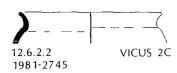
Quartz/quartzite inclusions with a grain size of less than 0.5mm and a frequency of 25%.

17.3.1.1

86 (Fort 4c) Gillam 1976, no 146; AD 280-350.

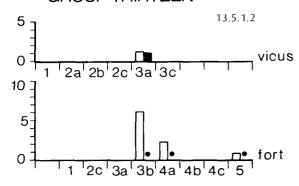
GROUP TWELVE

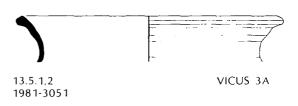


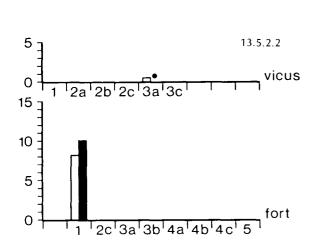


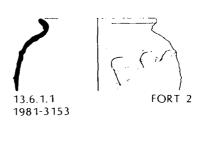


GROUP THIRTEEN

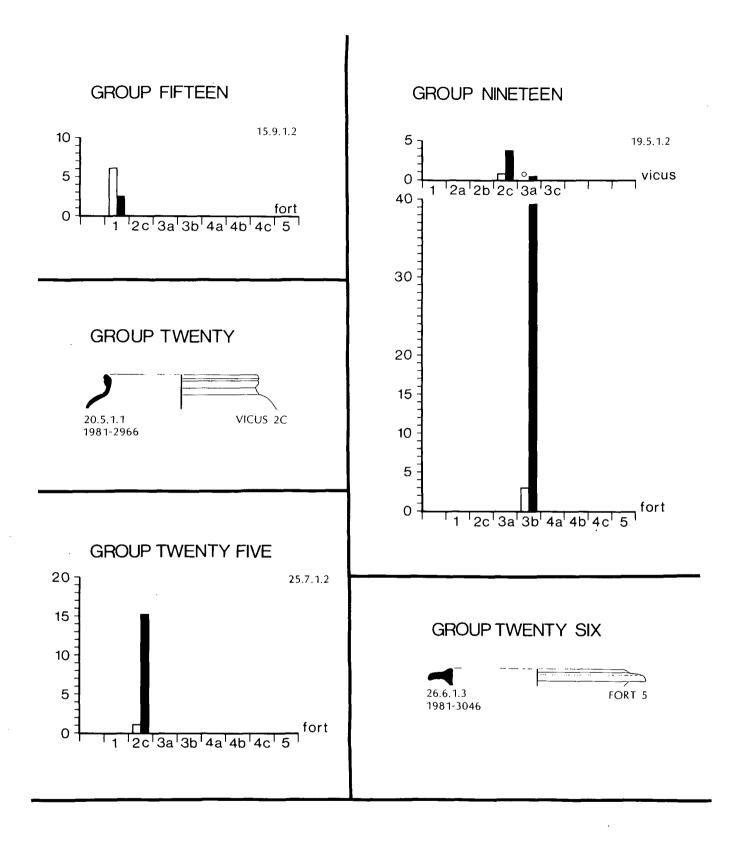




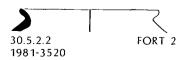








GROUP THIRTY



26.6.2.2 26.8.1.1 26.8.2.2

26.9.2.2

GROUP NINETEEN **GROUP TWENTY SEVEN** 19.5.1.2 27.2.2.1 27.2.2.2 A medium hard, rough textured fabric with angular, 27.2.2.3 ill-sorted grains and a brown colour. This fabric, 27.3.2.2 which occurs most commonly in Phase 3a of the 27.5.1.1 fort, consists of fragments of amphorae. 27.5.1.2 27.5.2.1 **GROUP TWENTY** 27.5.2.2 27.5.2.3 The dominant inclusions are quartz/quartzite with a grain size of 1-2mm and a frequency of 10%. 2558 623 (Vicus 3a) 20.5.1.1 2559 623 (Vicus 3a) Gillam 1970, 69, fig 29, no 285; AD 320-370, ***2966** 655 (Vicus 2c) although the reading on the rim of this example is Greyware rim; Cunliffe 1975, no 137; 3rd century. somewhat different. GROUP TWENTY ONE 27.6.2.2 27.9.1.2 21.8.1.2 GROUP TWENTY EIGHT **GROUP TWENTY TWO** 28.2.2.1 28.3.1.2 22.5.1.2 22.8.2.3 28.5.1.1 28.5.2.1 GROUP TWENTY THREE 28.6.2.3 28.8.1.1 23.5.1.2 28.8.1.2 28.8.2.1 886 (Vicus 2c) 28.8.2.2 Fragment of globula amphora. GROUP TWENTY NINE 23.6.1.1 29.2.2.1 **GROUP TWENTY FOUR** 29.5.1.2 29.5.2.2 24.2.1.2 29.8.2.2 24.4.1.2 **GROUP THIRTY** 24.4.2.3 24.5.1.2 24.7.1.2 30.5.2.2 **GROUP TWENTY FIVE** 150 (Fort 2) *3520 25.4.1.2 Friendship-Taylor, 1979, 97, fig 236; AD 270-410. 25.7.1.2 30-6-2-2 3145 706 (Fort 2) GROUP THIRTY ONE Globula amphora, dresle 20; Collingwood and Richmond 1969, fig 91c; 1st/2nd century. (fig 6.18) 706 (Fort 2) 3146 Collingwood and Richmond 1969, fig 91c. This group is characterised by black iron ore inclusions with a grain size of less than 0.5mm GROUP TWENTY SIX and a frequency of 10%. 31.2.2.3 26.6.1.3 31.3.2.2 692 (Fort 5) 31.5.2.1 Gillam 1970, 64, fig 24, no 231; AD 360-400. 31.6.2.1

31.6.2.2

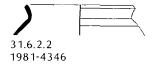
*4346

A Group 31 medium hard fabric with a smooth texture, angular sorted grains and a brown colour.

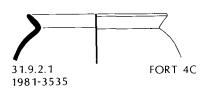
Jar rim; Gillam 1976, no 101; AD 70-110.

969 (Vicus 2b)

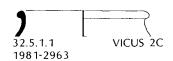
GROUP THIRTY ONE

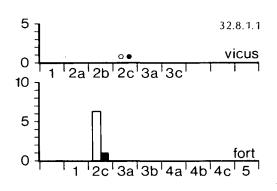


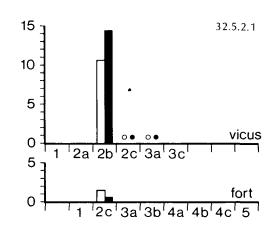




GROUP THIRTY TWO







GROUP THIRTY THREE



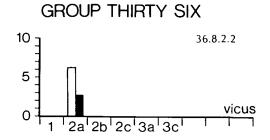


FIG 6.18, SCALE 1:4

31.6.2.3 33.2.1.1 33.3.2.1 31.8.1.1 33,3,2,2 33.5.2.1 *2971 655 (Vicus 2c) 33.5.2.2 Greyware rim; Gillam 1976, no 107, (a different 33.5.2.3 fabric); AD 80-130. 33.6.1.3 33.6.2.1 31.8.2.2 33.8.1.1 33.8.2.2 31.9.2.1 33.9.1.2 33.9.2.2 A soft smooth fabric with angular sorted inclusions and a neutral colour. A soft smooth fabric with angular sorted grains *3535 502 (Fort 4c) and a brown colour. *2696 863 (Vicus 2c) 31.9.2.2 Hofheim flagon; Hawkes and Hull 1947, type 140B; 31.9.2.3 up to AD 75. **GROUP THIRTY FOUR GROUP THIRTY TWO** 34.2.2.1 This group has black iron ore as the dominant 34.3.2.2 inclusions with a grain size of less than 0.5mm 34.5.1.2 and a frequency of 5%. 34.5.2.3 34.6.1.1 32.2.2.2 34.6.2.2 34.9.2.2 32.3.1.1 1000 (Vicus 2a) **GROUP THIRTY FIVE** A rusticated ware jar. 35.3.2.3 32.3.2.1 35.5.2.1 35.5.2.2 1693 1000 (Vicus 2a) 35.6.1.2 Rusticated jar. 35.8.2.2 35.9.2.2 35.9.2.3 32.5.1.1 **GROUP THIRTY SIX** As above fabric save that the grains are angular sorted. Group 36 is characterised by black iron ore *2963 655 (Vicus 2c) Brodribb et al 1973, no 494 (which is smaller); AD inclusions with a grain size of less than 0.5mm 120-180. and a frequency of 20%. 3780 754 (Vicus 2c) Jar with everted rim; Gillam 1970, 53, fig 13, no 36.6.2.3 118, where the same form appears in black A medium hard smooth fabric with angular sorted burnished ware; AD 120-160. grains and a buff/white colour. 32.5.1.2 32.5.2.1 36.8.2.2 Occurs in Phases 2 and 3. As above fabric except with a soft, rough texture and brown in colour. Occurs in Phase 2a. 32.6.2.2 32.6.2.3 **GROUP THIRTY SEVEN** 32.8.1.1 37.2.2.2 37.8.2.2 A soft rough fabric with angular ill-sorted grains **GROUP THIRTY EIGHT** and a neutral colour. Occurs in Phase 2c. 38.9.2.1 32.8.2.2 32.9.1.1 GROUP THIRTY NINE 32.9.1.2 32.9.2.2 39.5.1.1 GROUP THIRTY THREE **GROUP FORTY**

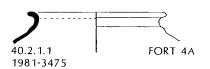
(fig 6.19)

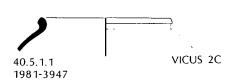
The dominant inclusions of this are black iron

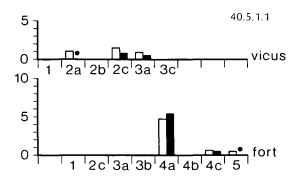
ore, with a grain size of less than 0.5mm and a

frequency of 5%.

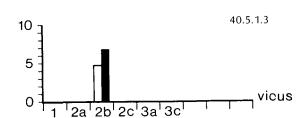
GROUP FORTY







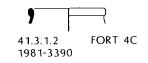


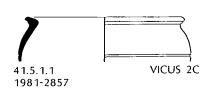


VICUS 2C

40.5.1.1 VICUS 2C 1981-2965

GROUP FORTY ONE





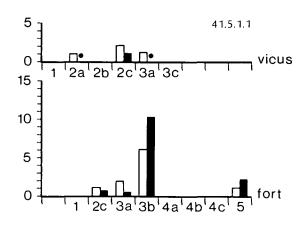


FIG 6.19, SCALE 1:4

The dominant inclusion of this group is mica with a grain size of less than 0.5% and a frequency of 10%.

40.2.1.1

A hard, rough fabric with angular, ill-sorted grains and a neutral colour.

*3475 339 (Fort 4a)

40.3.1.1

A hard, smooth fabric with angular, ill-sorted grains and a neutral colour.

40.5.1.1

A medium hard rough fabric with angular, ill-sorted grains and a neutral colour. *2965 655 (Vicus 2c)

Darling 1977, 90, fig 6-11; Mid-late 1st century. *2968 655 (Vicus 2c)

Jar rim; Jones 1974, no 161.

2975 655 (Vicus 2c)

Gillam 1976, no 340; AD 100-140.

3782 754 (Vicus 2c)

Rim; Jones 1974, no 161.

*3947 748 (Vicus 2c)

This fabric does not occur in Phase 1.

40.5.1.3

A medium hard rough fabric with angular ill-sorted grains and a buff/white colour.
4136 868 (Vicus 2b)

A fragment of a handle.

40.2.1.1 40.3.1.2 40.3.2.1 40.5.1.1 40.5.1.2 40.5.1.3 40.6.1.1 40.6.1.2 40.6.1.3 40.8.1.1 40.8.1.2 40.9.1.1

GROUP FORTY ONE

The dominant inclusion is mica with a grain size of less than 0.5mm and a frequency of 5%.

41.2.1.1 41.2.1.2

A hard rough fabric with angular, ill-sorted grains and a neutral colour.
4066 868 (Vicus 2b)

A small fragment of a ceramic colander.

41.3.1.1

41.3.1.2

As above save that the colour is brown. *3390 86 (Fort 4c)

Beaker rim with black shiny colour coat on hard orange fabric; Gillam 1976, no 44; AD 190-240. This is probably a sherd of an imported Rhenish beaker.

41.4.1.1

41.5.1.1

A medium hard rough fabric with angular, ill-sorted grains and neutral colour.

*2857 835 (Vicus 2c)
2972 655 (Vicus 2c)
Greyware rim with black coat; Brodribb et al 1973, no 496; AD 120-180.

(fig 6.20)

*3709 662 (Vicus 2c)
Greyware rim; Dore and Gillam 1979, no 50;
Trajanic to Hadrianic.
*3913 775 (Vicus 2c)
Greyware rim; Jones 1974, no 161.
*3553 270 (Fort 3b)
Greyware flagon; Hawkes and Hull 1947, pl LX, no 140a, where the rim form is the same; a Hoffheim fragment and so 1st century.

41.5.1.2

41.5.1.3

A medium hard rough fabric with angular ill-sorted grits and a buff/white colour.

*3280 63 (Fort 4c) 2558 583 (Fort 5)

Hammer head mortarium; Gillam 1970, 69, fig 29, no 285; AD 320-370.

41.5.2.2

A similar fabric to the above save that the inclusions are sub-angular and ill-sorted, and of a brown colour occuring only in Phase 1.

41.6.1.1 41.6.1.2 41.6.1.3 41.6.2.1

41.8.1.1

A soft smooth fabric with angular, ill-sorted grains and a neutral colour.

*2969 655 (Vicus 2c)
Gillam no 128, in black burnished fabric, where the date is AD 130-180.

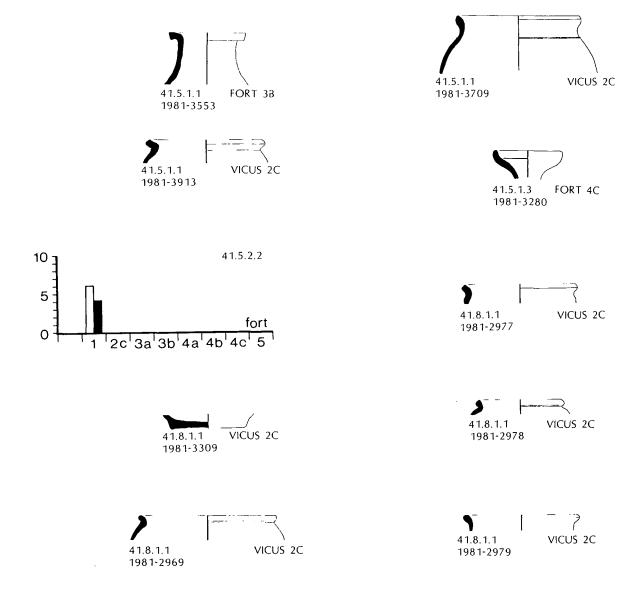
*2977 655 (Vicus 2c)

*2978 655 (Vicus 2c)
Greyware rim; Gillam 1976, no 170; AD 130-180.

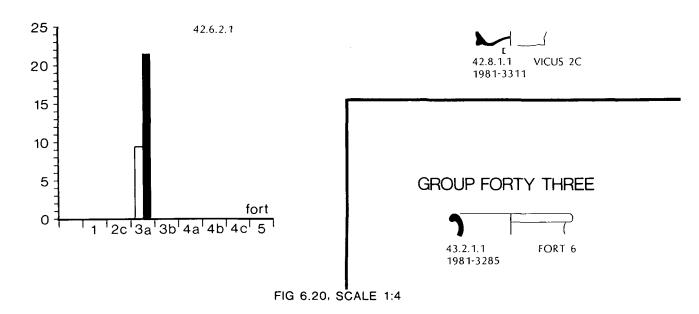
*2979 655 (Vicus 2c)

*3309 655 (Vicus 2c)

41.8.1.2 41.9.1.1 41.9.1.2 41.9.1.3



GROUP FORTY TWO



GROUP FORTY TWO

The dominant inclusion is mica with a grain size of less than 0.5mm and a frequency of 2%.

42.2.1.1

42.3.1.1

42.3.1.2

42.3.1.3

42.5.1.1

A medium hard rough fabric with angular ill-sorted grains and a neutral colour.

42.5.1.2

42.5.1.3

42.6.1.2

42.6.1.3

42.6.2.1

A medium hard smooth fabric with angular sorted inclusions and neutral colour.

This fabric only occurs in Phase 3a of the fort.

42.6.2.2

42.8.1.1

A soft rough fabric with angular ill-sorted grits and a neutral colour.

*33[] 655 (Vicus 2c)

Small greyware beaker; Down and Rule 1971, 35, no 91, where the form is similar but the fabric different.

42.8.1.2

42.8.1.3

42.9.1.1

42.9.1.2

GROUP FORTY THREE

The predominant inclusion is mica, with a grain size of less than 0.5mm and a frequency of 15%.

43.2.1.1

A hard rough fabric with angular ill-sorted grains and a brown colour.

*3285

Re-deposited.

43.2.1.3

43.3.1.1

43.5.1.1

43.5.1.2

43.6.1.1 43.6.1.2

43.8.1.1

43.9.1.1

43.9.1.2

43.9.1.2

GROUP FORTY FOUR

The dominant inclusion of this group is mica, with a grain size of less than 0.5 mm and a frequency of 20%.

44.3.1.1

4007 861 (Vicus 2c) Greyware rim; Gillam 1976, no 97; AD 80-130.

44.3.1.2

44.5.1.2

(fig 6.21)

A medium hard rough fabric with angular ill-sorted grains and a brown colour. This fabric occurs only from Phase 3a of the vicus.

44.5.1.3

44.6.1.1

44.6.1.2

44.8.1.2

44.9.1.1

A soft smooth fabric with angular ill-sorted grains and a neutral colour.

*4345

961 (Vicus 3)

44.9.1.2

A soft smooth fabric with angular ill-sorted grains and a brown colour.

*4475 1047 (Vicus 2a)

A bowl; Gillam 1976, no 294 is smaller with a finer flanged rim; AD 120-150. Fabric occurs only in Phases I and 2.

GROUP FORTY FIVE

The dominant inclusion of this group is mica with a grain size of less than 0.5mm and a frequency of 25%.

45.6.1.1

45.6.1.2

A medium hard smooth fabric with angular ill-sorted grains and a brown colour, occurring only in Phase 1 of the fort.

46.8.1.2

GROUP FORTY SEVEN

The dominant inclusion is red iron ore with a grain size of 0.5-1mm and a frequency of 10%.

47.6.2.3

A medium hard smooth fabric with angular sorted grains and a buff/white colour. This fabric occurs only in Phase 3a of the fort where it is represented by fragments of a mortarium with grey and white quartz grits. Possibly a Caerleon derivative.

GROUP FIFTY

The dominant inclusion is red iron ore with a grain size of 0.5-1mm and a frequency of 1%.

GROUP FORTY FOUR

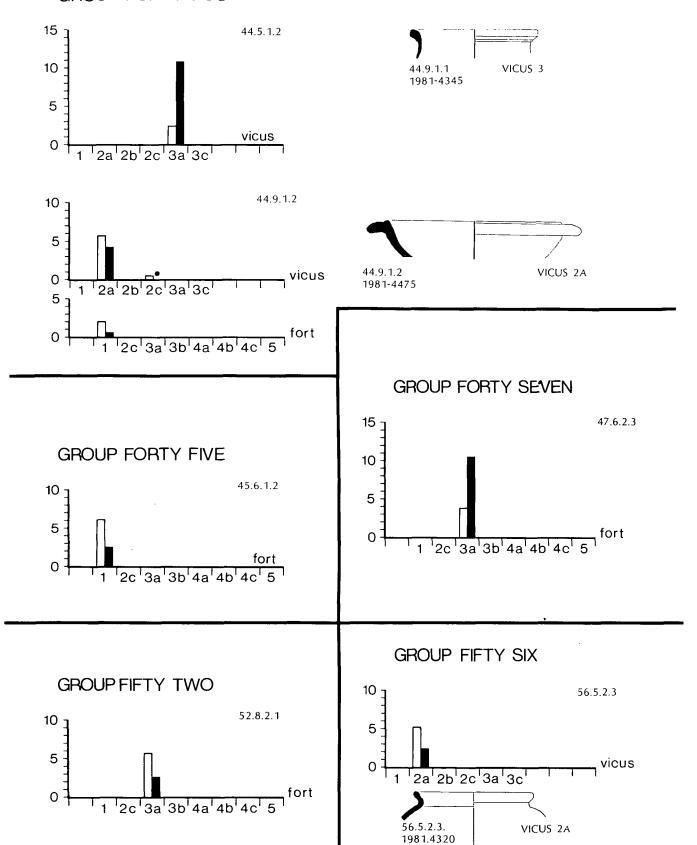


FIG 6.21, SCALE 1:4

50.5.2.3

A medium rough fabric with angular sorted grains and a buff/white colour.
2589 775 (Vicus 2c)
Black colour coat with pink barbotine dots on exterior surface; possibly Nene Valley.

GROUP FIFTY TWO

Dominant inclusion red iron ore with a grain size of less than 0.5mm and a frequency of 10%.

52.8.2.1

A soft rough textured fabric with angular sorted grains and a neutral colour. Occurs in fort phase 3a.

GROUP FIFTY SIX

The dominant inclusion is red iron ore with a grain size of 1-2mm and a frequency of 2%.

56.5.2.3

A medium hard rough fabric with angular sorted grits and a buff/white colour.

*4320 988 (Vicus 2a)
Only occurs in vicus phase 2a

GROUP FIFTY SEVEN

The dominant inclusion is calcite with a grain size of 1-2mm and a frequency of 5%.

57.6.1.1

A medium hard smooth fabric with angular ill-sorted grains and a neutral colour. Occurs in vicus phase 2a.

GROUP FIFTY EIGHT

The dominant inclusions are calcite grits.

58.2.1.1

A hard rough textured fabric with angular ill-sorted grains and a neutral colour. 3515 142, 146 (Fort 1) A cavetto rim of a calcite gritted jar.

GROUP FIFTY NINE

The dominant inclusion is calcite grits of 2-3mm with a frequency of 15%.

59.2.1.1

A hard rough fabric with angular ill-sorted grains and a neutral colour.

3414 96 (Fort 5)

Body sherd.

GROUP SIXTY

The dominant inclusions are fragments of grog with a grain size of I-2mm and a frequency of 1%.

60.5.2.3

A medium hard rough fabric with angular sorted grains and a buff/white colour.

(b) THE SAMIAN WARE (fig 6.22 and 6.23)

F C Wild

Introduction

The site as a whole produced only a small quantity of samian ware, insufficient for any firm conclusions to be drawn as to the precise dates of occupation of the various periods. A noteworthy feature of the samian is the scarcity of material datable to the Antonine period, particularly decorated ware, from the stratified periods of the fort and vicus, Two pieces of decorated ware, numbers 12 and 26 below, are of Antonine date; the latest stamps, C and D, are from the period cAD 125-50. There is a certain amount of Antonine plain ware from the third phase of the vicus and later contexts, but this cannot be dated with the same precision as stamped or decorated sherds. This scarcity is, however, likely to be due to no more than chance or the efficient disposal of rubbish, as previous excavations have all produced examples of the work of the later Antonine potters (Bruton 1909, pls 56-59; Jones and Grealey 1974, figs 32-33, nos 66-81) and there is no doubt that the site was occupied at this period.

In the samian report for the excavations of 1972 (Jones and Grealey 1974, 87), it is suggested, on the grounds of an absence of decorated ware dating to the period between cAD 130-150, that there was a gap in the occupation of the fort from cAD 140-160. Although this appears to have become accepted opinion in subsequent work, it is not altogether borne out by further examination of the evidence. Of the pieces published, those by the Quintilianus group (Jones and Grealey 1974, nos 55-58), there dated cAD 120-135, might perhaps more normally be assigned to cAD 125-150 (Stanfield and Simpson 1958, 147). Work in this style has been found on sites on the Antonine Wall as well as those on Hadrian's Wall. The work of Austrus (Jones and Grealey 1974, nos 61-62), dated cAD 150 and assigned to the Antonine period, is also normally assigned to cAD 125-150 (Stanfield and Simpson 1958, 181). Examination of the unpublished pieces revealed, among others, sherds in the style of Butrio, Geminus, Acaunissa, X.5 and X.6, all normally dated within the period cAD 120-150, and one piece attributable to the Sacer group which may be as late as cAD 130-160. Material of this date range is perhaps more scarce from the present excavations, though numbers 9, 11, 24-25, and stamps C and D (the latest stamps from the site) are all of this period. However, in view of the scarcity of later Antonine wares, of a period when the fort was undoubtedly occupied, there is no need for this to be more than fortuitous. Neither the samian from the 1972 excavations nor from the present ones is sufficient in quantity for it necessarily to be representative of the site as a whole; however, in both cases, there would appear to be at least as much, if not more, decorated ware that can be dated to the period cAD 125-150 than to the period cAD 160-190.

The material from the stratified periods of the fort and vicus has been summarised below.

Significant decorated pieces have been described in detail, and all stamps have been listed.

The Phase 2 Fort

The material from the second phase of the fort is South Gaulish, with the exception of two sherds, one possibly in the fabric of Les Martres-de-Veyre dating from after AD 100, the other being number 7 below. Occupation clearly started during the Flavian period: the group produced fragments from ten examples of form 37 and only one of form 29, although others are present in later contexts. The occurrence of number 7 in the demolition layer puts the end of this phase of the fort later than cAD 120, though as the sherd is not closely datable, it is uncertain how much later.

Stamps

A. (OF) C. LVI Form 18, South Gaulish, showing die 5z of Calvus i of La Graufesenque (b). This stamp is from a die which was probably only used in the Flavian period. There are examples from sites such as Ribchester, Carlisle and the Nijmegen fortress. cAD 70-95. (1443, F268 – primary filling of ditch)

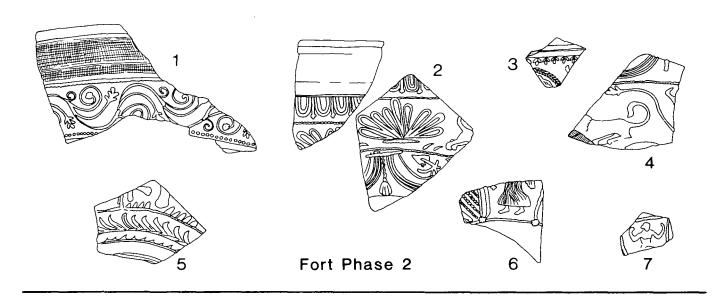
B. (VI) TALIS (F) Form 27, South Gaulish, showing die 24a' of Vitalis ii of La Graufesenque (a). The complete die was used consistently in the Flavian period and there is one example from Camelon. A stamp from the broken die (24a') occurs at Bainbridge. cAD 75-90. (1425, F615 – redeposited)

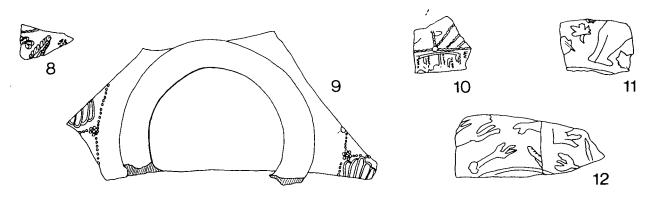
Form 27, South Gaulish, showing an unidentified and possibly illiterate stamp. Flavian. (1419, F253 – demolition debris)

Decorated Ware

- 1. Form 29, South Gaulish. Three joining fragments of upper zone, showing scroll decoration typical of the Neronian early Flavian period. The main features can be seen on a bowl stamped OFPASSENI (Knorr 1919, Taf 63C). The bud motif was also used by this potter (ibid Taf 62A). cAD 65-80. (1429, F706 ditch filling; 1416, F271 demolition deposit)
- 2. Form 37, South Gaulish. Two fragments of bowl with zonal decoration; the upper zone showing a bush motif and the hindquarters of an animal; the lower, a triple festoon containing stirrup leaf. The lower zone shows similarities to the work of Vitalis, who used the same festoon, leaves and pendant (Knorr 1919, Taf 83, 16, 9, 10, 13) and also the stylised grass in the upper zone (Knorr 1919, Taf 84F). The bush motif appears to be the same as that used on bowls in Natalis' style (Karnitsch 1959, Taf 26, 9-11), though there are no other connections with his work. A fragment from a closely similar or identical bowl was found in a similar deposit in earlier excavations on the site (Petch 1950, fig 9, 6). The general style and associations suggest a date cAD 75-100. (1441, F241 - pit)

DECORATED SAMIAN Scale 1.2





Fort Phase 3

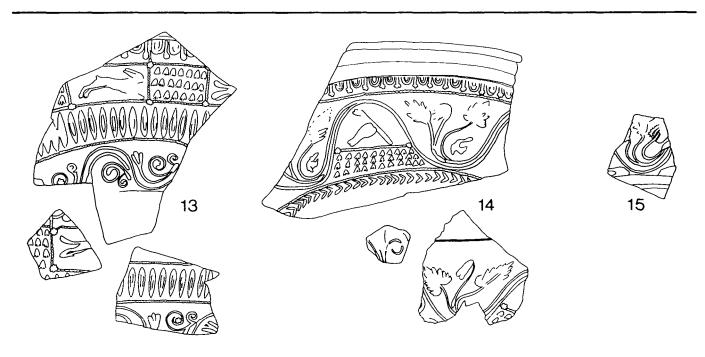


FIG 6.22

- 3. Form 67, South Gaulish, burnt, showing a leaf medallion containing a type, possibly the eagle (0.2174 or 0.2175). The form is typical of the Flavian period. (1442, F241 pit)
- 4. Form 37, South Gaulish. One fragment of bowl with zonal decoration. The upper zone contains a triple festoon; the lower, the lion (0.1419) and tree with bird (0.2293). The lion and tree were used by Germanus, but the triple festoon is not a common feature of his work, and the bowl is more likely to be the work of his followers. The tree, bird and grass tufts occur with different animal types on two bowls from recent excavations at Binchester (publication forthcoming) and decoration of a generally similar type occurs in the Bregenz cellar deposit (Jacobs 1912, 12). However, the zonal decoration and use of Germanus' lion suggests a Flavian date rather than one in the Trajanic period cAD 80-100. (1465, F253 - demolition debris)
- 5. Form 37, South Gaulish, showing basal wreath of leaves. The wreath occurs on a bowl in the Bregenz cellar (Jacobs 1912, 21) and on two at Ovilava (Karnitsch 1959, Taf 18, 1, 2) attributed to the style of Mercato or Cosius; cAD 90-110. (2203, F253 demolition debris)
- 6. Form 37, South Gaulish, showing panel decoration with Victory (0.814). The type occurs, with a similar corner tendril, on a bowl from Bregenz (Jacob 1912, 19); cAD 90-110. (1466, F253 demolition debris)
- 7. Form 37, Central Gaulish, showing a narrow panel with beaded borders, containing the small Venus (0.281). The type was in use from the Trajanic to the Antonine period. Stanfield and Simpson (1958) record its occurrence on pieces in the styles of X.2 and the Ranto group, as well as, later, on those of Quintilianus and Cettus, and by Advocisus in the Antonine period. However, all the earlier potters used wavy-line borders almost exclusively, and the fabric is not that of Les Martres-de-Veyre. There is nothing on the sherd to suggest the work of a particular potter, but the piece cannot be earlier than cAD 120, and could possibly be Antonine. (1490, F253 demolition debris)

The Phase 3 Fort

None of the material from the third phase of the fort need be later than the Hadrianic period, with the exception of number 12, from the later filling of the Phase 3b ditch, which is likely to post-date AD 160.

Stamp

C. COSMINIM Form 27, Central Gaulish, showing die 2a of Cosminus of Lezoux (a). Cosminus was a minor Central Gaulish potter, who used this stamp on forms 18/31, 27 and probably 38. One of his other stamps comes from Corbridge. A range of cAD 125-50 is likely.

(1909, F722 - ditch)

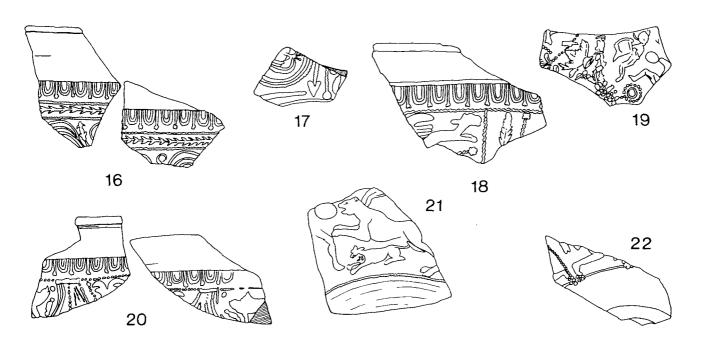
Decorated Ware

- 8. Form 37, Central Gaulish. One fragment, in the fabric of Les Martres-de-Veyre, showing a wavy-line border, rosette, acanthus tip and part of a leaf. The border, rosette and acanthus were used by Stanfield's Potter of the Rosette (Stanfield and Simpson 1958, pl 122, 278) and the so-called "Donnaucus-loenalis" group (ibid pl 140, 463). However, no close parallels are available for the leaf. The date is clearly in the range of cAD 100-20. (2089, F984)
- 9. Form 37, Central Gaulish. One fragment showing panel decoration with beaded borders, rosette junction and leaf motif. The features can all be paralleled on a bowl from Holt (Grimes 1930, fig 44, 110) in the style of Rogers' potter X.14, Stanfield's Donnaucus-Sacer style; cAD 120-45. (1418, F67 primary filling of Phase 3b ditch)
- 10. Form 37, Central Gaulish. One fragment in the fabric of Les Martres-de-Veyre, showing panel with leaf-tips and wavy lines, and a vertical row of Rogers' ornament U64 (Rogers 1974). The leaf-tip panel was used by the Potter of the Rosette (Stanfield and Simpson 1958, pl 22, 276; 23, 286) and also on work in "Donnaucus loenalis" style (ibid pl 46, 541). All these potters used U64; cAD 100-25. (1935, F740 filling of Phase 3 ditch)
- 11. Form 37, Central Gaulish, showing the bear (0.1588) and leaf used by Sacer and his associates (Stanfield and Simpson 1958, pl 82, 5); cAD 125-50. (1968, F889 Northgate, Phase 3)
- 12. Form 37, Central Gaulish. Two joining fragments, one from a later context, of a freestyle bowl showing the filling ornament used by Paternus and his associates Laxtucissa and Lastuca. The types are the hounds (0.2024, 0.1940) and goat (0.1842). A bowl by Paternus from Wingham shows the types, filling ornament and double groove around the base of the decoration. Paternus, whose work is not normally found on Antonine sites in Scotland, is not thought to have started work before AD 160; cAD 160-90. (1468, F242 Phase 4, filling of Phase 3 ditch; 1470, F253 Phase 4a, filling of Phase 3b ditch)

The Phase 4 Fort

The samian sheds little light on the dating of Phase 4 of the fort or Phase 3 of the vicus. Phase 4 of the fort contained little samian, all of which was clearly residual in context, most being South Gaulish. What is perhaps surprising is the absence of Antonine wares. That the fort was occupied during the Antonine period is clear from Bruton (Bruton 1909, pls 56-9), where the work of the later Antonine potters is clearly illustrated. That nothing survives here of later date than the Hadrianic period may be a tribute to the efficiency with which the Roman army disposed of its rubbish.

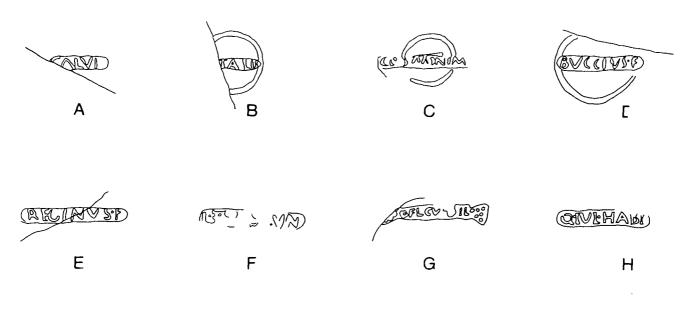
DECORATED SAMIAN Scale 1.2



Vicus Phase 2



Vicus Phase 3



SAMIAN STAMPS Scale 1.1

Stamps

D. BVCCIVS.F Form 33, Central Gaulish, showing die Ia of Buccius of Lezoux (c). This stamp occurs at forts in the Rhineland and on forms 18/31, 18/31R and 27. A range cAD 125-50 is therefore likely.

(1426a, F223 - primary filling of Phase 4a ditch)

E. REGINVS.F Form 18/31, Central Gaulish, showing die 2a of Reginus ii of Les Martres-de-Veyre (a). This stamp occurs in the London Second Fire groups and at northern forts near Hadrian's Wall. One of his other stamps occurs at Mumrills; cAD 110-30. (1498, Ditch sump)

The Phase 2a, b and c Vicus (Industrial)

Most of the decorated ware from the site came from the second phase of the vicus. The Central Gaulish pieces are all in the styles of the Trajanic - Hadrianic potters of Les Martres-de-Veyre. However, there is evidence that work in the style of these potters was produced at Lezoux, probably during the decade cAD 120-30. The fabric of three of these pieces (numbers 21-3) is more likely to be that of Lezoux than of Les-Martres, but there is nothing from the group that is undoubtedly later than the Hadrianic period.

Decorated Ware

- 13. Form 37, South Gaulish. Eight fragments of bowl, showing panels containing hare (0.2074) and hound (0.1921) divided by panels of leaf-tips, over a zone of straight gadroons, beneath which is a running scroll. The ovolo is that with the large rosette tongue, used by Frontinus and Crucuro and common in the Pompeii hoard and on Flavian sites in Scotland. Bowls from Pompeii show a similar scroll (Atkinson 1914, 44) and also panels with the hare, hound and leaf-tips (ibid 40, 42, 49). The zone of gadroons appears on a bowl with this ovolo from Loudoun Hill in Scotland; cAD 70-90. (1986, 1921, F655; 2061, F886; 1960, F850; 2076, F890; 1503, F272; 2109, F972; 1962, F850)
- 14. Form 37, South Gaulish. Ten fragments of bowl showing scroll decoration. The finish of the bowl is blurred making identification of the figure types uncertain. The lower concavities of the scroll contain an uncertain animal over leaf-tips, and a spiral motif over another uncertain type. The leaf was used by Biragillus, fl. Germanus and Patricius, who uses the same Nile goose (0.2244) in his scroll (Knorr 1952, Taf 50). The ovolo has a large rosette tongue, but is not identical to that on number 13. The chevron wreath occurs frequently with the large rosette ovolo on the bowls from Pompeii, though with zonal decoration rather than a scroll, as here; cAD 75-100. (1933, F742; 1929, 1933, F655; 1863, F700; 1990, 1925, F748)
- 15. Form 29, South Gaulish, showing scroll decoration in lower zone, with Nile geese (0.2244, 0.2286). The leaf is probably that used by Vanderio (Knorr 1919, Taf 80C), or the rather similar leaf used by Rufinus and the potter stamping SVIIRIV; cAD 65-80. (1505, F272)

- 16. Form 37, South Gaulish. Two fragments, slightly burnt, one unstratified, showing horizontal wreath below the ovolo and scroll decoration; cAD 70-90. (2024, F838; 2170 unstratified)
- 17. Form 37, South Gaulish, showing a panel containing a festoon with an arrow-shaped pendant. An identical festoon and pendant occur on a bowl from Binchester which also shows a tree of the type used by Germanus and his later associates in the upper zone; cAD 80-110. (2026, F838)
- 18. Form 37, South Gaulish, showing panel decoration with stag (0.1738) and probably the hound (0.1925) and vertical plant motif. The types and a similar vertical plant appear together on a bowl from Ovilava (Karnitsch 1959, Taf 16, 3) attributed to the style of Mercato. The syle suggests a Domitianic-Trajanic date; cAD 90-110. (1972, F655)
- 19. Form 37, Central Gaulish. Three joining fragments in the style of Drusus i of Les Martres-de-Veyre. All the features in the decoration can be paralleled on a bowl from Colchester (Stanfield and Simpson 1958, pl 11, 139), which shows the same gladiators (0.1027, 0.1063) in the wreath, the beaded ring and panel of chevrons; cAD 100-20. (2010, F775)
- 20. Form 37, Central Gaulish. Four fragments of bowl showing panels containing a festoon with acanthus leaf and saltire motif. The ovolo and decorative details are those of Drusus i of Les Martres-de-Veyre. The festoons can be paralleled on a bowl from London (Stanfield and Simpson 1958, pl 13, 167), and the saltire is probably similar to that on a bowl from Les Martres-de-Veyre (Terrisse 1968, planche VIII, 154); cAD 100-20. (1910, F655; 2027, F838; 2019, F775)
- 21. Form 37, Central Gaulish, showing freestyle decoration with warrior (0.198), panther (0.1542) and lion (0.1424). The basal bead-row is a characteristic feature of the Trajanic Hadrianic period. This and the dot-rosette occur on work in the style of loenalis (Terrisse 1968, planche XL, 272), as do the warrior and lion (Stanfield and Simpson 1958, pl 38, 445, 451). Work in this style was produced both at Les Martres-de-Veyre, cAD 100-25, and at Lezoux, cAD 120-30. The fabric of this piece is uncertain, but is probably from Lezoux. (2061, F886)
- 22. Form 37, Central Gaulish, showing a panel containing a kneeling figure (0.204). The border and dot-rosette were used by the "Donnaucus-loenalis" group (Stanfield and Simpson 1958, pl 48, 573), who also used the type (ibid pl 49, 587). The fabric is similar to number 21 above, suggesting a date cAD 120-30. (2061, F886)

The Phase 3a, b and c Vicus (Domestic)

The samian from this period was mainly residual, but a few Antonine sherds were present, including form 31, Curle 21, and the base of a bowl of form 37, probably East Gaulish and certainly late Antonine in date. The only Antonine decorated sherds are too small and worn sherds of ovolo, number 26 below.

Stamp

F. LTER S..VN Form 18, South Gaulish, showing an uncertain die of L Ter(tius?) Secundus of La Graufesenque (c). The reading is reasonably clear and the stamp seems to be different from the others recorded for him. His site record is consistently Flavian or later, and includes Wilderspool, the Bregenz cellar hoard and Domitianic foundations in Germany; cAD 80-110. (1445, F470)

Decorated Ware

- 23. Form 37, Central Gaulish. The fine-beaded borders were used by the "Donnaucus-loenalis" group, and the ovolo possibly that used by loenalis. The fabric is similar to 21 and 22 above, suggesting a date cAD 120-30. (1956, F819)
- 24. Form 37, Central Gaulish. Two fragments showing dolphins (0.2393, 0.2384) and, possibly, the sea-horse (0.34). The ovolo is probably Rogers' B36 (Rogers 1974), used by Drusus of Lezoux, who used the fine-beaded borders and the dolphins; cAD 120-40. (1888, F734)
- 25. Form 37, Central Gaulish, showing ovolo with wavy-line border and medallion. The detail of the ovolo is not sufficiently precise for certain identification, but the piece is likely to be Hadrianic. (1439, F645)
- 26. Form 37, Central Gaulish. Two fragments showing rather worn ovolo, possibly Rogers' B52 (Rogers 1974), used by Criciro and Divixtus. Criciro worked cAD 135-70 and Divixtus cAD 150-80. The piece is therefore likely to be Antonine. (1855, F694)

Unstratified Contexts

Stamps

- G. OFLCVIRIL Form 18, South Gaulish, showing die 13a of L. Cosius Virilis of La Graufesenque (b). Stamps from both this die and a modified version of it occur at Domitianic foundations in Britain and Germany; cAD 80-110. (1601)
- H. Q.IVL.HABI Form 18, South Gaulish, showing die la of Q. Iulius Habilis of La Graufesenque. The die has been recorded on form 29 and was clearly in use during the period cAD 70-90. (1717)

Footnote

I should like to thank Miss Brenda Dickinson of Leeds University for providing the notes on the potters' stamps. The die and potter numbers are those due to appear in her and Mr B R Hartley's forthcoming index of potters' stamps on samian ware. According to their notation, the letter (a) after the name of the manufacturing site indicates that the die in question has been found there, (b) that other dies of the same potter have been found there, (c) that the die has been attributed to that pottery on the grounds of fabric and distribution.

(c) BRICK AND TILE

V Tanner

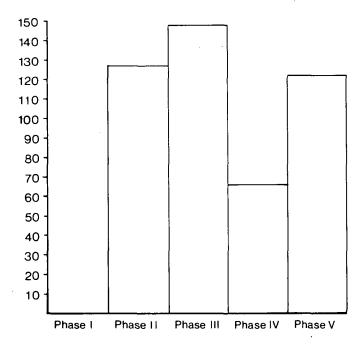
The Roman period in Britain witnesses, for the first time, the use of ceramic architectural material for building construction. Roofing material is represented on the site by tegulae, flat tiles with flanges along each of the long sides, and semi-cylindrical imbrices, which were positioned over the upward pointing flanges of the tegulae in order to form a roof. Brick was possibly used for flooring or wall coursing, though in the North-West during the Roman period, walls were rarely constructed throughout in brick. Also found was a single piece of box tile, which would have been used to carry hot air from an underfloor heating system or hypocaust.

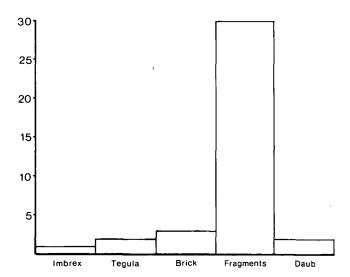
The large amounts of daub found in the excavation were probably derived from demolished clay walls, overns and furnaces. The quantities of each type of tile and brick, together with identifiable brick/tile fragments, shown in figs 6.24 and 6.25 are assumed to indicate a fair proportion of those originally used during each stage of the site's development.

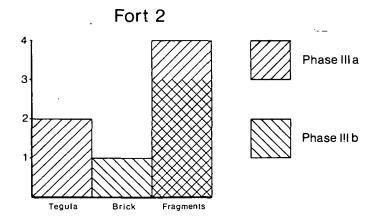
Confirmation that the Phase I fort was made of timber is given by the total absence of ceramic architectural fragments. An improvement in the construction of the fort and vicus during Phase 2 is indicated by the appearance of building material. The high proportion of fragments and daub from the vicus at a later phase (fig 6.26), must represent large-scale demolition, some of the material possibly deriving from the furnace workings.

The Phase 4 stone fort features produced a complete range of building pieces (fig 6.25), including the only occurrence of a box tile, while the results from Phase 5 (fig 6.25) may possibly be a reflection of the residual nature of the finds, dating from an early period.

Ceramic Architectural Fragments

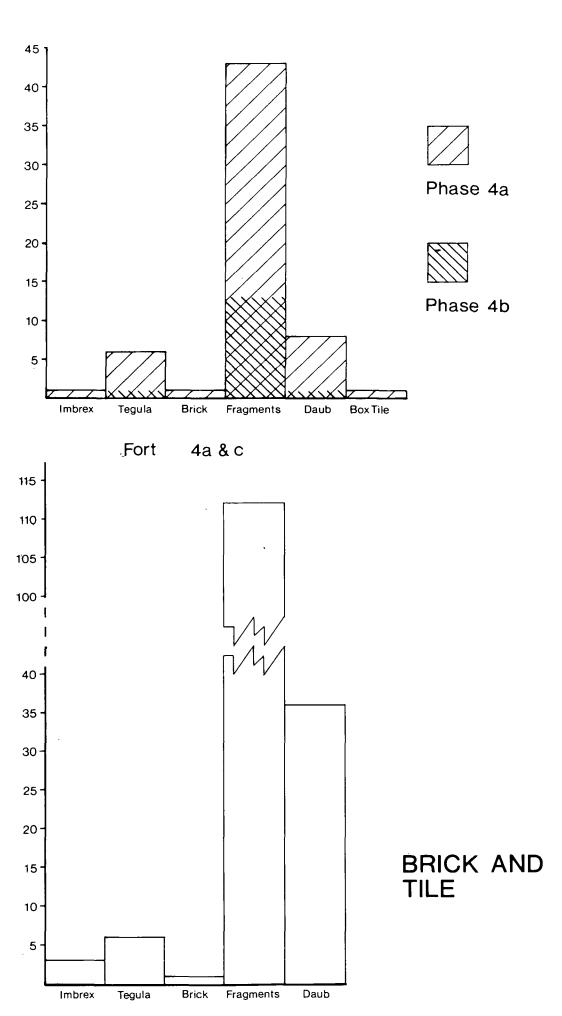




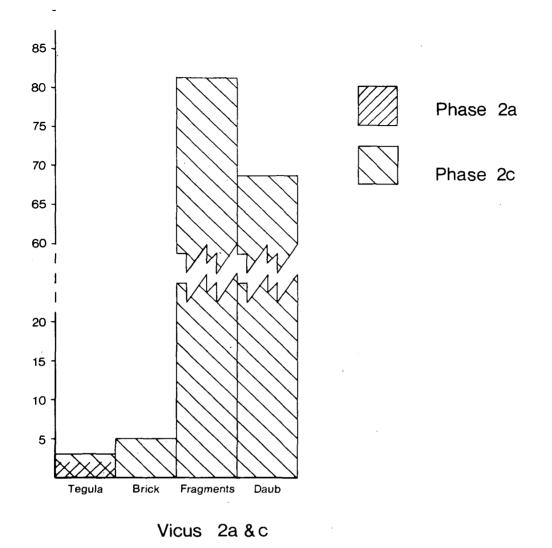


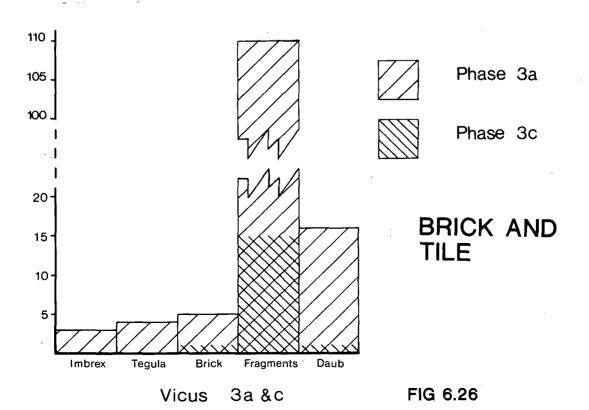
Fort 3a & b

FIG 6.24



Fort 5 FIG 6.25





(d) THE CLAY MOULDS (fig 6.27)

Fragments fo two bi-partite moulds (1980.1329 and 1981.3098 Fort Phase 2) formed of fabric rich in small quartz inclusions. The backs of each show signs of smoothing and scorching. 1981.3098 has a clear runnel for pouring molten lead or bronze

into the mould. This piece has raised lugs for locating the two halves of the mould. The finished object consisted of an 'S' shaped central motif surrounded by leaf-like impressions. Comparison may be made with a clay mould found at South Shields (Miket 1983, 135, 176).

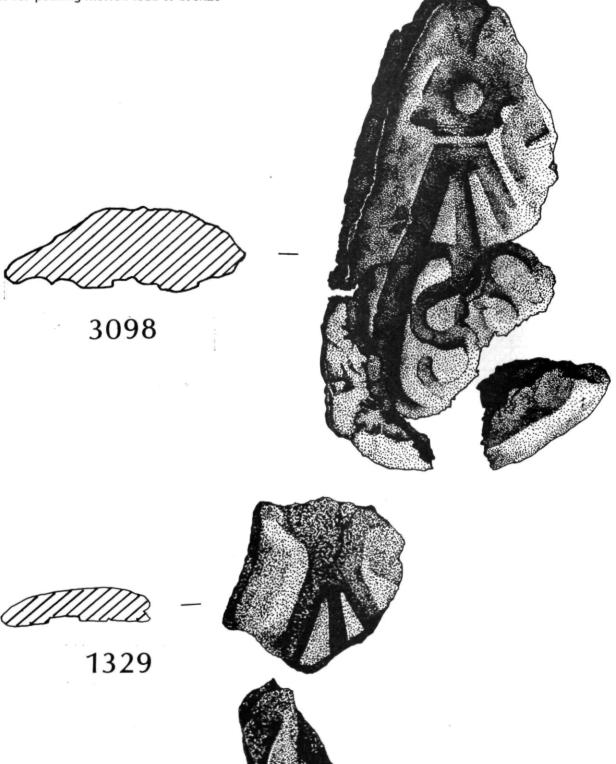


FIG 6.27

CLAY MOULDS

0